

Standard No. 8: Organization and Governance: The college or school is organized and staffed to advance its vision and facilitate the accomplishment of its mission and goals.

1) **Documentation and Data:**

Required Documentation and Data:

Uploads:

- College or school organizational chart (**APPENDIX 8A**)
- Job descriptions and responsibilities for college or school Dean and other administrative leadership team members (**APPENDIX 8C**)
- List of committees with their members and designated charges (**Upload 8.1 and https://www.ndsu.edu/pharmacy/school_info/committees/**)
- College, school, or university policies and procedures that address systems failures, data security and backup, and contingency planning
(**NDSU Policy 166 @ <https://www.ndsu.edu/fileadmin/policy/166.pdf>**)
(**NDSU Policy 164 @ <https://www.ndsu.edu/fileadmin/policy/164.pdf>**)
(**APPENDICES 8R and 8S**)
- Curriculum Vitae of the Dean and other administrative leadership team members (**APPENDICES 8D-8H**)
- Evidence of faculty participation in university governance (**NARRATIVE**)

Required Documentation for On-Site Review:

- Written bylaws and policies and procedures of college or school (**APPENDIX 8J**)
- Faculty Handbook (**APPENDIX 8J**)

Data Views and Standardized Tables:

It is optional for the college or school to provide brief comments about each chart or table (see Directions).

- AACP Standardized Survey: Faculty – Questions 1, 2, 5, 10
- AACP Standardized Survey: Alumni – Question 14
- Table: Distribution of Full-Time faculty by Department and Rank

Optional Documentation and Data:

- Other documentation or data that provides supporting evidence of compliance with the standard

2) **College or School's Self-Assessment:** Use the checklist below to self-assess the program on the requirements of the standard and accompanying guidelines:

	S	N.I	U
8.1. Leadership collaboration – University leadership and the college or school dean collaborate to advance the program’s vision and mission and to meet ACPE accreditation standards. The dean has direct access to the university administrator(s) with ultimate responsibility for the program.	●	○	○
8.2. Qualified dean – The dean is qualified to provide leadership in pharmacy professional education and practice, research and scholarship, and professional and community service.	●	○	○
8.3. Qualified administrative team – The dean and other college or school administrative leaders have credentials and experience that have prepared them for their respective roles and collectively have the needed backgrounds to effectively manage the educational program.	●	○	○
8.4. Dean’s other substantial administrative responsibilities – If the dean is assigned other substantial administrative responsibilities, the university ensures adequate resources to support the effective administration of the affairs of the college or school.	○	●	○
8.5. Authority, collegiality, and resources – The college or school administration has defined lines of authority and responsibility, fosters organizational unit collegiality and effectiveness, and allocates resources appropriately.	○	●	○
8.6. College or school participation in university governance – College or school administrators and faculty are effectively represented in the governance of the university, in accordance with its policies and procedures.	●	○	○
8.7. Faculty participation in college or school governance – The college or school uses updated, published documents, such as bylaws, policies, and procedures, to ensure faculty participation in the governance of the college or school.	●	○	○
8.8. Systems failures – The college or school has comprehensive policies and procedures that address potential systems failures, including technical, administrative, and curricular failures.	●	○	○
8.9. Alternate pathway equitability* – The college or school ensures that any alternative pathways to the Doctor of Pharmacy degree are equitably resourced and integrated into the college or school’s regular administrative structures, policies, and procedures, including planning, oversight, and evaluation. N/A	○	○	○

3) **College or School’s Comments on the Standard:** The college or school’s descriptive text and supporting evidence should specifically address the following. Use a check to indicate that the topic has been adequately addressed. Use the text box provided to describe: areas of the program that are noteworthy, innovative, or exceed the expectation of the standard; the college or school's self-assessment of its issues and its plans for addressing them, with relevant timelines; findings that highlight areas of concern along with actions or recommendations to address them; and additional actions or strategies to further advance the quality of the program. For plans that have already been initiated to address an issue, the college or school should provide evidence that the plan is working. Wherever possible and applicable, survey data should be broken down by demographic and/or branch/campus/pathway groupings, and comments provided on any notable findings.

- A description of the college or school’s organization and administration and the process for ongoing evaluation of the effectiveness of each operational unit
- A self-assessment of how well the organizational structure and systems of communication and collaboration are serving the program and supporting the achievement of the mission and goals

- ☑ How college or school bylaws, policies and procedures are developed and modified
- ☑ How the college or school is applying the guidelines for this standard in order to comply with the intent and expectation of the standard
- ☑ How the college or school's administrative leaders are developing and evaluating interprofessional education and practice opportunities
- ☑ How the credentials and experience of college or school administrative leaders working with the dean have prepared them for their respective roles.
- ☑ Any other notable achievements, innovations or quality improvements
- ☑ Interpretation of the data from the applicable AACP standardized survey questions, especially notable differences from national or peer group norms
- ☑ How the dean provides leadership for the college or school and program and how the qualifications and characteristics of the dean support the achievement of the mission and goals
- ☑ The authority and responsibility of the dean to ensure all expectations of the standard and guidelines are achieved
- ☑ How the dean interacts with and is supported by the other administrative leaders in the college or school
- ☑ How the dean is providing leadership to the academy at large, and advancing the pharmacy education enterprise on local, regional, and national levels.
- ☑ How the college or school is applying the guidelines for this standard in order to comply with the intent and expectation of the standard
- ☑ Any other notable achievements, innovations or quality improvements
- ☑ Interpretation of the data from the applicable AACP standardized survey questions, especially notable differences from national or peer group norms

[TEXT BOX] [15,000 character limit, including spaces] (Approximately six pages)

School Organization and Administration

In 2012, the College of Pharmacy, Nursing, and Allied Sciences was reorganized into the College of Health Professions (CHP). The CHP houses the School of Pharmacy (SOP), School of Nursing, Department of Public Health, and Department of Allied Sciences. Charles D. Peterson, PharmD, is the Dean of the CHP and SOP ([Appendix 8A](#)). The SOP is organized into two academic departments, Pharmaceutical Sciences and Pharmacy Practice, to execute the PharmD program's mission and goals ([Appendix 8B](#)). The SOP Executive Team consists of the Dean, two Associate Deans (who have responsibilities in both the SOP and CHP), and two Department Chairs. Current position descriptions for members of the Executive Team are found in [Appendix 8C](#).

The Senior Associate Dean (SrAD) is an ex-officio member of both Curriculum and Assessment Committees and provides yearly charges to both committees. Notable accomplishments since 2012 include the ongoing development of interprofessional education (IPE) across the CHP, the use of the ExamSoft exam platform and iPads in the SOP, expansion of assessment efforts, implementation of the co-curriculum

program, and institution of student e-Portfolios. In addition to other CHP and SOP responsibilities, the Associate Dean for Student Affairs and Faculty Development (ADSA&FD) is Chair of the SOP Admissions Committee. Notable accomplishments since 2012 include conversion to multiple-mini-station interviews and implementation of the Early Admissions Program (EAP).

Administrative leaders in NDSU SOP have the necessary credentials and experience to effectively manage their respective units and work collaboratively with one another (Appendices 8D-H). Each unit also has full-time faculty and staff to support goals of the program. Unfortunately, as a result of statewide budget cuts starting in 2014 through to the present, the SOP has vacant faculty and staff positions despite ongoing growth in relation to teaching, service, and scholarly productivity. This has added strain to administrators, faculty, and staff who have needed to absorb responsibilities related to the areas of recruitment, laboratory support, and assessment; plus additional responsibilities in the areas of co-curriculum, academic advising, and IPE. Further discussion of these challenges, including currently vacant faculty/staff positions, are found in Standards 18 and 23.

Qualifications and Contributions of the Dean

Charles D. Peterson, PharmD, has been Dean since 1996 (Interim in 1995). Prior to becoming Dean, he served as SOP Associate Dean and Chair of the Department of Pharmacy Practice. He has experience in all aspects of academic pharmacy: teaching, scholarship, and direct patient care, in addition to extensive service to the CHP/SOP, the University, professional organizations and academic leadership as outlined in Appendix 8E. The Dean reports to the NDSU Provost. A formal job description, including description of duties and responsibilities, qualifications for the position of Dean, supervisory relationships and skills and knowledge required is detailed in Appendix 8C.

Since 2012, the CHP has experienced significant growth including the expansion of the nursing school and growth in public health which has added to the Dean's workload. Also, the Dean has been called upon by the President to take on additional tasks (e.g., chairing the interim provost search committee) because he is the senior Dean at NDSU. These factors may sometimes make it challenging for him to devote full attention to the SOP. To partially address CHP growth, a SrAD was appropriated since the last accreditation visit. Overall administrative structure modifications are currently being discussed and refined to address the ongoing needs in the SOP.

Dean Peterson's interactions with faculty, staff, students, alumni and other stakeholders are fueled by his passion and commitment to the profession and scholarship. These interactions are further articulated in his most recent comprehensive review in 2016 (Appendix 8I). The Dean's accomplishments are significant for the stakeholders of NDSU, CHP and SOP. Some of the most notable achievements are listed here:

- Successfully completing an all privately funded \$28M 74,000 six story building addition to Sudro Hall (e.g., Aldevron Tower) which will greatly facilitate IPE and the soon to be completed renovation of the original Sudro Hall for research expansion.
- Unprecedented success in fund-raising including significant increases in annual gifts (FY17 total donations to the CHP were \$23,557,671), student scholarships (now exceed \$337,000/year), and total endowments for the CHP are now currently \$7,997,532, all record dollars.

- Unprecedented growth of the CHP to now more than 2,000 students, 165 faculty/staff, with 130 graduate students which is significantly increased from 1995 with totals of 650 students, 30-40 faculty/staff, and 5 graduate students.
- Unprecedented growth in research (during FY18 the CHP had 66 grants awarded, with \$9,072,919 in research revenue, and out of 142 Colleges and Schools of Pharmacy nationally our Department of Pharmaceutical Sciences is currently ranked 3rd in the nation for NIH funding per faculty FTE by the AACP.
- Increased emphasis on IPE within the College and the recent name change to CHP (approved in 2015) with pharmacy, nursing, allied sciences, and public health disciplines now under his management. This, in part, demonstrates a commitment to IPE as identified in the SOP Mission and Vision statements.
- In 2014, the CHP acquired Sanford College of Nursing in Bismarck (ND) which is now NDSU Nursing at Sanford Health.
- In 2012, the CHP added the state's first ever Master of Public Health degree program in North Dakota with dual degree options including PharmD/MPH.

In 2019, 83% of SOP alumni (vs. 68.3% peer, 63.1% national) responding to the AACP Alumni Survey indicated that the Dean is providing leadership in pharmacy compared to 75% in 2017 and 72.7% in 2015. Further, in 2019, NDSU AACP Faculty Survey reported 84.9% agreement (vs. peer 83.1% and national 79.3%) that the Dean is an effective leader of the SOP (compared to 79% in 2017 and 90% in 2015).

Communication and Collaboration

The SOP has a full-time Marketing and Communication Coordinator. This position assists the Dean to maintain an effective system of communication with internal and external stakeholders, including electronic, social media, print media, faculty/staff retreats, committees, and personal visits. The SOP website (<http://www.ndsu.edu/pharmacy/>) is the main avenue for communication for both internal and external stakeholders. In addition to the SOP's Facebook page and Twitter account (both managed by the College Marketing/Communication Coordinator), the SOP publishes a biannual alumni newsletter, highlighting development, faculty and student achievements, and outreach activities.

The Dean publishes SOP updates in his "Message from the Dean" column in the quarterly publication of the North Dakota Pharmacists Association publication, the biannual student organization newsletter, and the biannual preceptor newsletter. Semi-annual developmental workshops are sponsored by the SOP to give faculty and staff an opportunity to explore critical issues related to the SOP's mission, vision, and strategic plan. Examples of programs presented include classroom instructional technology, learning assessment, strategic planning, diversity and cultural awareness, IPE, effective communication skills, admission interviewing, and academic advising.

The SOP Executive Team meets every third week to facilitate direct communication between SOP executives. The SOP Leadership Council was created in 2018 as an additional measure to ensure communication between units, and their respective faculty and staff. Besides the five executives, the

Leadership Council includes the Vice-Chair of Pharmacy Practice, Chairs of the Assessment, Curriculum, and Experiential Education Committees, and Faculty Secretary. This Council meets monthly to discuss matters related to the SOP and subsequently sets the agenda for SOP faculty meetings. SOP faculty meetings are scheduled twice/semester (this was increased in 2018 from 1-2 meetings/year). Minutes from Executive Team, Leadership Council, and SOP faculty meetings are published on Blackboard to all faculty/staff.

The Dean's Student Liaison Committee, which includes student representatives from each professional-year class and student organization, meets monthly with the ADSA&FD providing a regularly scheduled communication mechanism between students and administration. At the University level, the Dean interacts with other deans, directors, and University administrators primarily through the Deans/Directors Council chaired by the Provost to keep University leadership informed of issues related to the SOP. Additionally, SOP department chairs attend monthly meetings with the Provost.

Faculty Role in School and University Governance

The process for faculty governance in the SOP is codified in the bylaws, Section 1.01 of the SOP Policy Manual, which serves as the Faculty Handbook and is accessible on the SOP's website @ https://www.ndsu.edu/fileadmin/pharmacy/documents/schoolinfo/School_of_Pharmacy_Policy_Manual_11.13.18.pdf. The SOP management philosophy is generally a consensus driven process in that bylaws, policies and operational procedures are developed, revised and approved by the faculty. Faculty actions are recorded in meeting minutes, which are posted on the SOP's Blackboard website which is accessible to all SOP faculty and staff. According to the bylaws, there is at least one faculty meeting/semester. Over the past 3 years, there have been 2 College/School meetings per year. Meetings for each of the two Departments have averaged 9 meetings/year over the last 3 years.

The SOP faculty have the opportunity to participate in school and college-wide committees which provide an effective framework to conduct SOP business and allow faculty to have significant input into governance. In addition to representation on the CHP Administrative Council, Executive Team (SOP), Leadership Council (SOP), and department meetings, other standing committees with SOP representation include Academic Affairs (CHP), Academic Affairs and Student Progress (SOP), Admissions (SOP), Assessment (SOP), College Awards (CHP), Curriculum (SOP), Dean's Student Liaison (CHP), Educational Resources (CHP), Experiential Education (SOP), Faculty Development (CHP), Inclusivity (CHP), Interprofessional Education (CHP), Promotion and Tenure (SOP and CHP), Scholarship Recognition/Awards (CHP), and Student Affairs (CHP).

All standing committee meeting minutes are posted on Blackboard. Bylaws define both the structure and charges for each committee and are detailed in Appendix 8J. In addition to faculty, pharmacy practitioners, preceptors, alumni, and students also serve on several of the committees. At the University level there are 5 faculty representatives from the CHP, 2 of them from the SOP, as members of the Faculty Senate. These representatives are elected annually at CHP faculty meetings.

In the 2019 AACP Faculty Survey, faculty agreement pertaining to the statement: SOP “*provides opportunities for faculty participation in governance*” increased significantly with 6.1% disagree (vs. 7.4% peer and 9.7% national) compared to the previous reporting period in 2017 (21.1% disagreed). The increased level of agreement may be explained, in part, because of creation of the Leadership Council in 2018 and increased frequency of SOP faculty meetings.

Organizational Effectiveness

Systematic evaluation of the effectiveness of each operational unit is fulfilled through annual reviews of the administrators, faculty, and staff, by their immediate supervisor. Also, each member of the Executive Team undergoes a comprehensive 360 degree review every 5 years, except the initial review which occurs after 3 years (Appendices 8K-N). Overall program effectiveness is assessed by measures detailed in the SOP Program Evaluation Plan and quantified in the SOP Program Evaluation Report which is distributed to the Executive Team, Leadership Council, SOP faculty, and staff (Appendices 8O-P). The Program Evaluation Plan is a systematic self-assessment of how well the organizational structure and systems of communication and collaboration are serving the program and supporting the achievement of its mission and goals. The Program Evaluation Plan and Report are used to identify areas of need, and triaged to appropriate committees for ongoing assessment and improvement. In addition to the SOP self-assessment, an outside review of the PharmD program was completed by the NDSU Program Review Committee (a NDSU Faculty Senate subcommittee) in March 2015 (Appendix 8Q). Program review is conducted every 7 years.

Contingency Plans

Contingency plans are in place in the event of technical system failures, as well as administrative and academic disruptions (required upload College Systems Failures Data Security and Contingency Planning). University Policies are in place to address Health and Safety (NDSU Policy 166 <https://www.ndsu.edu/fileadmin/policy/166.pdf>) and Emergency Procedures (NDSU Policy 164 <https://www.ndsu.edu/fileadmin/policy/164.pdf>). All systems operated by the Division of Information Technology are backed up on a nightly basis to protect against data loss. Most critical systems have copies of their data stored in two separate geographical locations. In the event of a technical failure of the campus’s information network, services would relocate to Bismarck.

At the SOP level, the Administrative Contingency Plan (Appendix 8R) provides guidance for cases involving emergencies and/or times when administrative leaders are out of the office, including after hours. The Instructional Continuity Plan (Appendix 8S) includes mechanisms for making up lost coursework and academic credit in the event classroom activities are disrupted for a week or longer, or when individual students are unable to physically attend class because of medical issues.

AACP Surveys

A notable observation from AACP Survey data indicates that NDSU SOP faculty are less likely to agree that the SOP’s administrators function as a unified team (disagree rate of 27.3% in 2019 and 31.6% in 2017 compared to 12% in 2015 at NDSU; 17.7% peer and 19.8% national in 2019). Moreover, 2019 data reveals that 12.1% of faculty disagree that the SOP administrators have clearly defined responsibilities (compared

to 5.3% in 2017 and 0% in 2015; 9% peer and 12.6% national in 2019). NDSU SOP administrators are cognizant of these survey results and acknowledge the issue is largely attributed to unclear lines of authority and accountability rather than specific roles and responsibilities. Efforts are being made to address this for the purpose of improving unified leadership and clearly defined administrative responsibilities, including contributions of the Dean.

4) **College or School’s Final Self-Evaluation:** Self-assess how well the program is in compliance with the standard by putting a check in the appropriate box :

Compliant	Compliant with Monitoring	Partially Compliant	Non-Compliant
No factors exist that compromise current compliance; no factors exist that, if not addressed, may compromise future compliance.	<ul style="list-style-type: none"> • No factors exist that compromise current compliance; factors exist that, if not addressed, may compromise future compliance /or • Factors exist that compromise current compliance; an appropriate plan exists to address the factors that compromise compliance; the plan has been fully implemented; sufficient evidence already exists that the plan is addressing the factors and will bring the program into full compliance. 	Factors exist that compromise current compliance; an appropriate plan exists to address the factors that compromise compliance and it has been initiated; the plan has not been fully implemented and/or there is not yet sufficient evidence that the plan is addressing the factors and will bring the program into compliance.	<ul style="list-style-type: none"> • Factors exist that compromise current compliance; an appropriate plan to address the factors that compromise compliance does not exist or has not yet been initiated /or • Adequate information was not provided to assess compliance
<input type="checkbox"/> Compliant	<input checked="" type="checkbox"/> Compliant with Monitoring	<input type="checkbox"/> Partially Compliant	<input type="checkbox"/> Non-Compliant

5) **Recommended Monitoring:** If applicable, briefly describe issues or elements of the standard that may require further monitoring.

- a. Define, and revise as necessary, the SOP administrative structure and job responsibilities for the purpose of improving unified leadership and lines of accountability, including contributions of the Dean.
- b. Ensure responsibilities for co-curriculum, interprofessional education, and assessment are clearly defined and adequately funded with human resources to optimize organization and delivery, and distribution of effort.
 - Suggest that a faculty member, or a current Associate Dean, is given:
 - 1) TBD% administration role as Director of Interprofessional Education
 - 2) TBD% administration role as Director of Co-Curriculum
 - 3) TBD% administration role as Director of Assessment
 - Based upon allocations, there would likely be an increase in FTE to meet this increased workload to the SOP

STANDING COMMITTEES

A. Curriculum Committee

The Curriculum Committee shall consist of at least six faculty with a minimum of two faculty representatives from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences each serving a 3 year term with an option of term renewal. In addition, one student member each from the first, second, third, and fourth year professional pharmacy classes, and one pharmacy practitioner shall be voting members of the Committee. The Senior Associate Dean shall serve as an ex-officio member of the Committee. The Curriculum Committee shall function to manage the development, organization, delivery, evaluation, and improvement of the pharmacy program curriculum, including enhancement of teaching and student learning based upon assessment data generated by systematic reviews of curricular structure, content, process, and outcomes.

1. Experiential Education Committee

The Experiential Education Committee shall include at least 4 faculty, including the Director(s) of Experiential Programs, and one volunteer preceptor. The committee is a subcommittee of the Curriculum Committee. The functions of this committee are to review and make recommendations on all matters concerning experiential learning to ensure compliance with accreditation standards regarding experiential programs.

B. Admissions Committee

The Admissions Committee for the pharmacy professional program shall consist of at least two non-administrative faculty representatives from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences, and one community member, each serving a 3 year term with an option of term renewal. The Associate Dean for Student Affairs and Faculty Development shall chair the Committee. The Committee shall review and apply SOP of Pharmacy policies adopted by the faculty pertinent to admission requirements and enrollment restrictions in evaluating admission applications and making decisions on admission of students into the Pharmacy Professional Program. In addition, this Committee shall also concern itself with the development and implementation of an effective student recruitment strategy. The Department of Pharmaceutical Sciences and its faculty review applications for the graduate program and make recommendations to the Graduate SOP for admission of graduate students to the program.

C. Assessment Committee

The Assessment Committee shall include at least six faculty members (with a minimum of two from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences) serving a 3 year term with an option of term renewal, the Director of Experiential Education Assessment and Outreach, one pharmacy student member, and one preceptor or alumnus. The Senior Associate Dean shall be an ex-officio member of the Committee. The functions of the Assessment Committee are to systematically assess student achievement of educational outcomes and institutional attainment of programmatic goals by a) developing, maintaining, executing and monitoring the PharmD Program Evaluation Plan; b) evaluating faculty assessment of student learning reports in conjunction with the Curriculum Committee course review process; and c) reviewing external feedback including, but not limited to, those from accrediting bodies and the University Assessment Committee. In addition, the Assessment Committee shall report assessment results, provide recommendations for improvement, and identify critical assessment needs to the Faculty and University Assessment Committee.

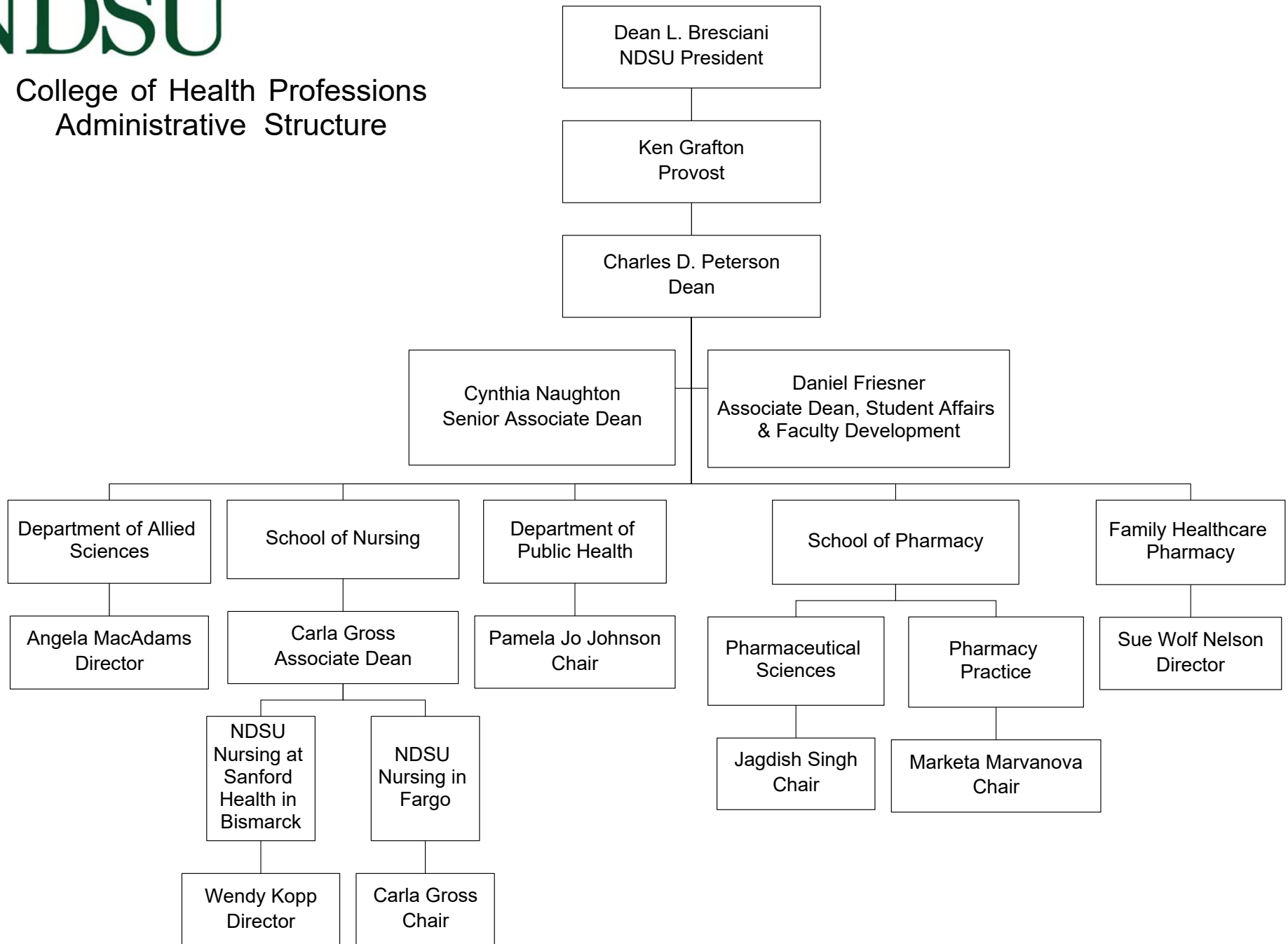
D. Leadership Council and Executive Team

The Leadership Council is chaired by the Dean and consists of the SOP Executive Team (Dean, Associate Deans, Chairs of Pharmaceutical Sciences and Pharmacy Practice) and the Vice-Chairs of Pharmaceutical Sciences and Pharmacy Practice, Chairs of the SOP Standing Committees, and the SOP Faculty Secretary. The purpose of the Leadership Council is to recommend agenda items for the SOP faculty meetings, communicate with faculty important decisions made by the SOP Standing Committees, and to share information and collaborate with the Executive Team to address issues involving the SOP. The Executive Team shall be an advisory group to the Dean on administrative matters affecting the SOP. The Executive Team shall be responsible for periodic review and revision as well as administrative oversight of the SOP: Bylaws; Mission, Vision, and Core Values Statements; Strategic Plan; and Policies.

E. Academic Affairs and Student Progress Committee

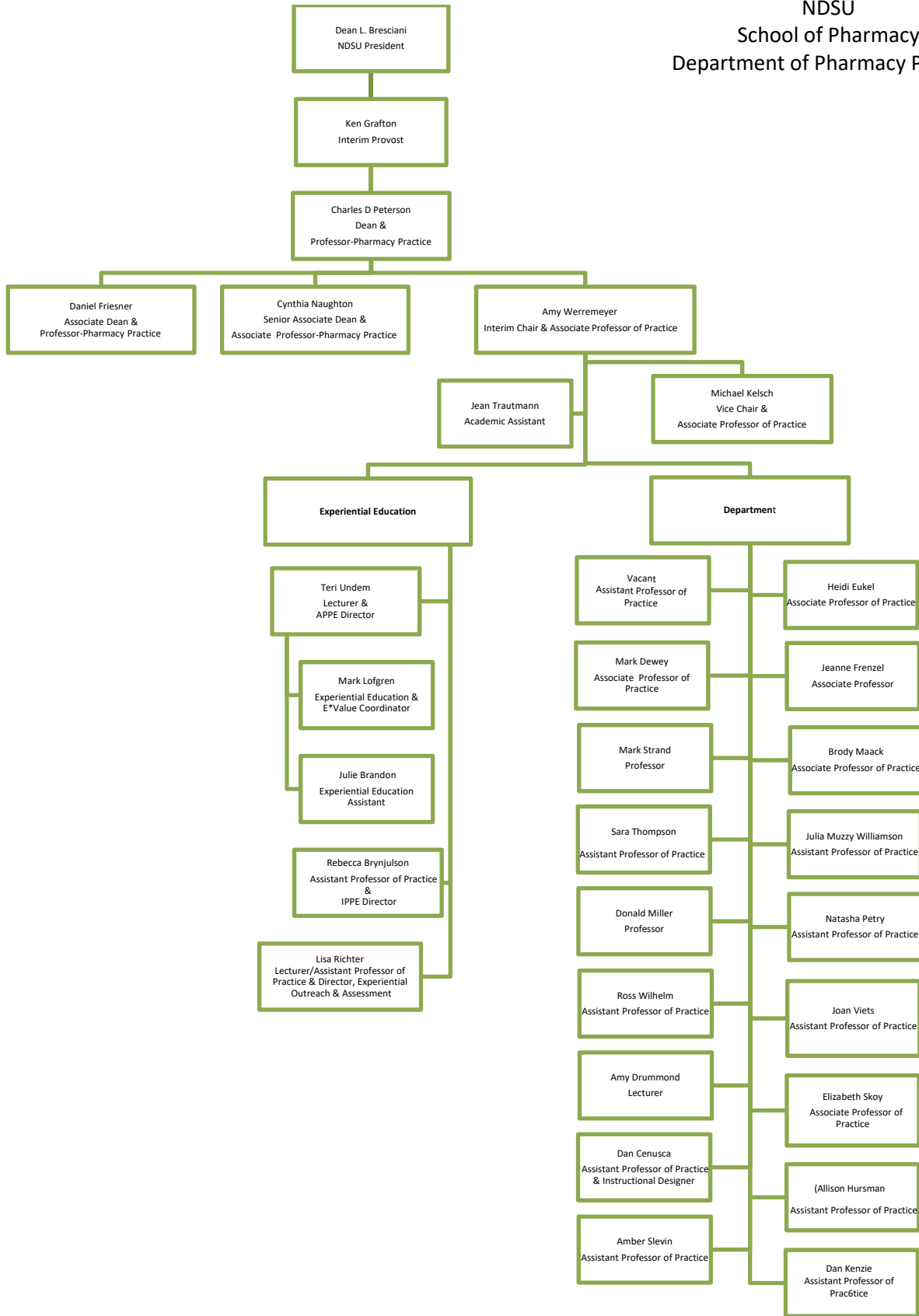
The Academic Affairs and Student Progress Committee shall consist of a minimum of four members, including at least one from each academic department. The Senior Associate Dean shall chair the Committee. The Committee shall review and apply School of Pharmacy policies and standards established by the Faculty to evaluate and address academic issues (e.g. sanctions, suspension, termination) affecting pharmacy student progression and graduation requirements.

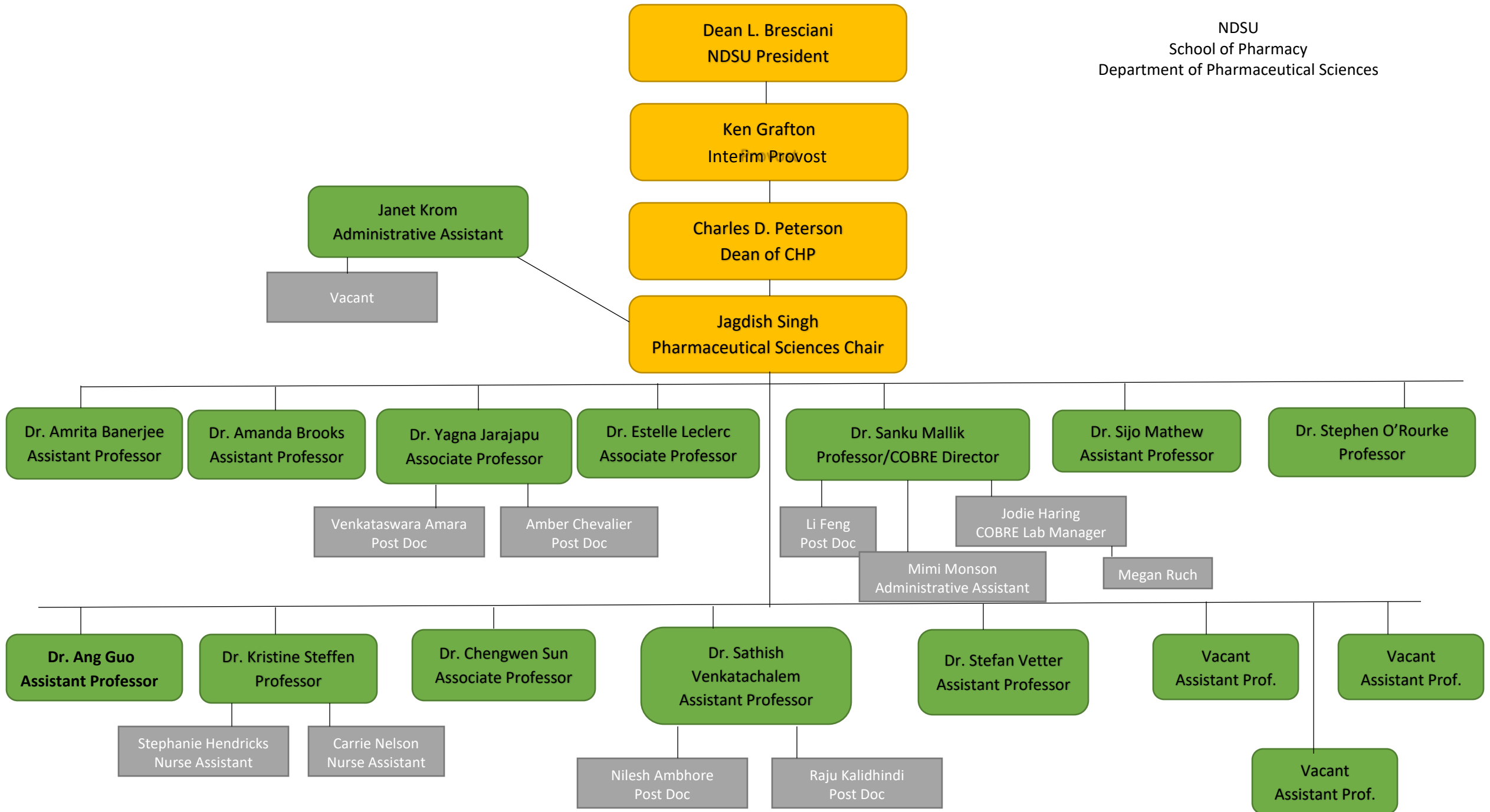
Approved: April 23, 2018, November 13, 2018
Source: SOP Faculty Meeting Minutes



Disclaimer: See department organizational charts for further breakdown of each department's organizational structure.

NDSU
School of Pharmacy
Department of Pharmacy Practice





**NORTH DAKOTA STATE UNIVERSITY
COLLEGE OF HEALTH PROFESSIONS
POSITION DESCRIPTION**

DEAN OF THE COLLEGE OF HEALTH PROFESSIONS & SCHOOL OF PHARMACY

Charles D. Peterson, Pharm.D.
Professor of Pharmacy Practice

AUTHORITY/REPORTING

This position reports to the Provost of the University.

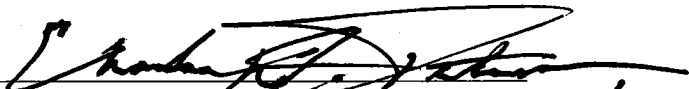
RESPONSIBILITIES:


The Dean serves as the Chief Academic Officer of the College and in this capacity is responsible for:

- Providing vision, leadership, and direction for the College, its people, and programs including short-term and long-term planning and program development;
- Overseeing and supervising the development and implementation of all teaching, research, and service/outreach activities of the College;
- Preparing and administering the College's fiscal budget including all personnel budgets, operating budgets, and any non-appropriated funds;
- Encouraging and implementing participatory management practices including fostering and promoting mutual cooperation and collaboration among its people and programs in efforts to accomplish the overall mission of the College and to strive for excellence;
- Working cooperatively and collaboratively with other academic and non-academic units on campus in advancing the mission, goals, and priorities of the University;
- Effectively articulating and communicating the mission, goals, and priorities of the College to various internal and external constituents.
- Engaging in outreach activities by means of interacting with constituents in the community, state and region, in a manner that reflects positively on the College and University;
- Serving as the liaison to the profession representing the College at various local, regional, and national professional meetings.

Dean of the College of Health Professions & School of Pharmacy
Position Description
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- Working cooperatively and collaborative with the North Dakota State Board of Pharmacy, the North Dakota Pharmacists Association, the North Dakota Pharmacy Service Corporation, and the North Dakota Society of Health Systems Pharmacists, as well as others in identifying ways and means for best serving the profession and strengthening the College.
- Providing leadership and direction for the College in complying with the accreditation standards established by the American Council of Pharmaceutical Education.
- Promoting and encouraging student, faculty, and staff development.
- Developing and implementing a formal assessment program for the College which evaluates the effectiveness of its academic programs and promotes continuous quality improvement.
- In cooperation with the NDSU Development Foundation and all College advisory boards in developing, implementing, and participating in a formal development/advancement program for the College for the purposes of soliciting and procuring additional financial resources to support the College's mission, vision, goals, and priorities.
- Developing a formal outreach program for the College which supports the University's land-grant mission and contributes to NDSU's commitment to serving the citizens of North Dakota.
- Serving as an active member of Provost's Dean's Council.
- Participating in any special projects or activities as assigned by the Provost and President.
- Through cooperation and collaboration, developing and maintaining good working relationships with students, faculty and staff of the College and University.
- Conducting one's activities and actions both on-campus and off-campus so as to reflect a positive professional image on the College and the University.


Employee signature and date 10/17/18


Supervisor signature and date 10/29/18

**NORTH DAKOTA STATE UNIVERSITY
COLLEGE OF HEALTH PROFESSIONS
TENURE TRACK POSITION DESCRIPTION**

TENURE TRACK FACULTY APPOINTMENT

Cynthia A. Naughton, Pharm.D.

Senior Associate Dean

Associate Professor, Department of Pharmacy Practice, School of Pharmacy

ADMINISTRATIVE/SERVICE, TEACHING, AND SCHOLARLY RATIO

Administrative/Service: 65%

Teaching: 10%

Scholarship: 25%

RESPONSIBILITIES

Responsibilities of this position will include but not be limited to the following:

1. Provide leadership, direction, and administrative oversight for all matters in the College in the absence of the Dean.
2. Serve as the Senior Associate Dean providing leadership, direction, and administrative oversight for the College including, but not limited to, the following:
 - Providing administrative oversight for all matters related to **academic affairs** to include: processing and approving new courses; providing faculty training and development to enhance teaching and student learning; promoting, encouraging, and coordinating interprofessional curricula/co-curricula efforts; managing and coordinating scheduling and registration; working with faculty and the Registrar's Office in scheduling classroom assignments; meeting with students with academic requirements; updating College academic affairs policies; adjudicating student academic deficiencies and violations per College Policy 3.01, and when requested preparing an annual report for the Dean which summarizes academic affairs accomplishments during the previous academic year.
 - Providing administrative oversight for all matters related to **assessment** to include working with department chairs to evaluate student learning and curriculum effectiveness; managing the comprehensive plan for assessment; coordinating and ensuring completion of annual assessment reports; and preparing an annual assessment report for the Dean.
 - Providing leadership, direction, and administrative oversight for all matters related to the the Department of Allied Sciences. This includes but is not limited to: supervising and evaluating the activities and performance, including conducting performance appraisals, of the following: Director of Allied Sciences, , Instructional Design/Educational Technology faculty, and assigned support staff.

- For the Pharmacy Program: Ensuring compliance with all accreditation standards related to academic affairs and assessment; developing and evaluating courses and curricula including course content, syllabi, and evaluation methods; overseeing the co-curriculum; and coordinating and managing curriculum quality improvement efforts;
- Read and abide by all rules and regulations for faculty of North Dakota State University as outlined in the faculty handbook.

Other duties and assignments:

- Serve as a member of the College Administrative Leadership Council
- Serve as Chair of the College Academic Affairs and Student Progress Committee
- Serve on at least one University Committee as assigned by the College
- Whenever possible, attend Departmental and College faculty meetings
- Participate in any special projects or activities as assigned by the Dean of the College
- Support College sponsored activities through attendance to include: faculty functions; student functions; commencement, white coat, pinning, and hooding ceremonies; the College Career Fair and Scholarship Program; continuing education conferences, and the North Dakota State Pharmaceutical Association Annual Meeting
- Serve as an ex-officio member of the Curriculum and Assessment Committees of the Pharmacy Program
- Serve as an academic advisor for students as assigned by the College
- Participate in didactic instruction of students in the professional pharmacy program
- Make ongoing efforts to present and publish scholarly activities in related field at local, regional, and national meetings and in refereed journals
- Make ongoing efforts to obtain extramural funding to support teaching, service, and scholarly activities
- Maintain high standards of professional and ethical behavior; and respect and abide by the mission, vision, and core values of the College established by the faculty where honesty, integrity, and collegiality guide all interactions with students, faculty, staff, administration, and the public
- Contribute to a positive work environment through cooperation and collaboration with others by developing and maintaining good working relationships with staff, faculty, employees, students, visitors, and the public
- Communicate, conduct, and demonstrate respect for others in a friendly, kind, courteous, pleasant, polite, and professional manner
- Practice good personal hygiene

- Dress appropriately so as to promote and maintain a positive professional image
- Participate whenever possible in local, regional, and national professional associations and meetings

CS 5/2/18 Employee initials/Date

[Signature] Dean initials/Date
5/1/18

**NORTH DAKOTA STATE UNIVERSITY
COLLEGE OF HEALTH PROFESSIONS
ADMINISTRATIVE APPOINTMENT**

ADMINISTRATIVE APPOINTMENT:

Daniel L. Friesner, Ph.D.
Associate Dean for Student Affairs & Faculty Development
Professor, Department of Pharmacy Practice

ADMINISTRATIVE/SERVICE, TEACHING, AND SCHOLARLY RATIO

Administrative/Service: 60% Teaching: 15% Scholarship: 25%

RESPONSIBILITIES

Responsibilities of this position will include but not be limited to the following duties for all academic programs and units within the College of Health Professions:

- Serve as a member of the College Administrative Leadership Council
- Administrative responsibilities include serving as the student affairs officer for the College of Health Professions being responsible for providing administrative oversight for all matters related to student affairs across all programs and units in the College
- Oversee and resolve all issues related to enforcement of College Policy 3.01: Student Conduct Policy related to Professional Misconduct of students. Oversee and resolve all issues submitted through the auspices of the Professional Misconduct Tracking Forms
- Provide oversight and advocacy for all pre-professional students in the College of Health Professions
- Update policies and information disseminated to students about our College including the Handbook to Degrees, Student Conduct Policy, and the College section of the University Bulletin and/or others
- Coordinate the implementation of and provide instruction in CHP 190: Critical Thinking and Academic Success
- Coordinate and participate in student recruitment activities for the College including Discover NDSU, College open houses, receptions and career fairs
- Coordinate and participate in all student orientation and informational sessions germane to the College of Health Professions, including summer orientation sessions as well as prospective student informational sessions
- Managing the required criminal background checks for students in the College of Health Professions
- Manage required drug screenings for students in the College of Health Professions, related to College Policy 3.14: Substance Misuse Testing Policy
- Serve as chair of the College Student Affairs Committee

- Serve as chair of the College Deans Student Liaison Committee
- Serve as a member of the NDSU Respiratory Care Admissions Committee
- Serve as a member of the NDSU Radiologic Sciences – Sonography Admissions Committee
- Serve as chair of the College Scholarship Committee
- Represent the College of Health Professions on University-wide committees and working groups related to student affairs. Examples include, but are not limited to, service on the following committees:
 - NDSU Orientation Committee
 - NDSU President's Committee on Campus Wellbeing
 - NDSU Honors Program Advisory Council
- Promote and encourage faculty development within the College including (where budgets permit) offering faculty development activities, seminars, conferences, and retreats
- Orient faculty to College policies related to student affairs matters and when appropriate seek faculty input on significant changes to student affairs policies, procedures, and matters impacting faculty
- Represent the College of Health Professions on University-wide committees and working groups related to faculty development. Examples include, but are not limited to, service on the following committees:
 - NDSU Policy 352 Working Group
 - Digital Measures Implementation Working Group
 - Commission on the Status of Women Faculty
 - NDSU Faculty Awards Committee
 - Ad hoc Faculty Grievance Committees as needed by the Vice Provost for Faculty Affairs
- Serve as chair or co-chair of the College Inclusivity Committee
- Serve as chair of the College Faculty Development Committee
- Participate in any special projects or activities as assigned by the Dean of the College.
- Work cooperatively and collaboratively with the other Associate Deans, Department Chairs, and Program Directors of the College on student affairs matters.
- Supervise and evaluate the activities of one support staff

Daniel L. Friesner, Ph.D., Position Description
Associate Dean for Student Affairs and Faculty Development
And Professor of Pharmacy Practice
College of Health Professions, North Dakota State University
Page 3 of 4

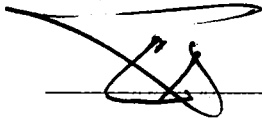
Responsibilities of this position will include, but not be limited to, the following duties specific to the School of Pharmacy:

- Provide administrative oversight for all matters related to student affairs
- Serve as a member of the School of Pharmacy Executive Team
- Ensure compliance with all ACPE accreditation standards related to student affairs
- Serve as chair of the Pharmacy Program Admissions Committee
- Assigning and orienting academic advisors for preprofessional and professional pharmacy students
- Providing administrative oversight for student recruitment activities
- Evaluating transcripts of students transferring to NDSU from other schools
- Serve on the School of Pharmacy Scholarship Committee
- Providing administrative oversight for updating policies and information disseminated to students about student affairs matters including Handbook to Degrees and University Bulletin


Faculty responsibilities of this position will include, but not be limited to, the following

- Read and abide by all rules and regulations for faculty of North Dakota State University as outlined in the faculty handbook.
- Serve on at least one College Committee and at least one University Committee as assigned by the College.
- Serve as an academic advisor for pharmacy students as assigned.
- Participate in didactic instruction as needed within the College of Health Professions and the School of Pharmacy
- Where appropriate, serve on student thesis, dissertation or practice improvement committees
- Make ongoing efforts to obtain extramural funding to support teaching, service, and scholarly activities as it relates to your tenure track faculty appointment.
- Make ongoing efforts to present and publish scholarly activities related to your professional role and responsibilities at local, regional, and national meetings and in refereed journals.

- Whenever possible, attend Departmental and College faculty meetings.
- Whenever possible, support through your attendance College sponsored activities including: faculty functions, student functions, student commencement and hooding ceremonies, continuing education conferences, and the North Dakota State Pharmaceutical Association annual meeting.
- Maintain high standards of professional and ethical behavior; and respect and abide by the Mission, Vision, and Core Values of the College established by the faculty where honesty, integrity, and collegiality guide all interactions with students, faculty, staff, administration, and the public.
- Contribute to a positive work environment through cooperation and collaboration with others by developing and maintaining good working relationships with staff, faculty, employees, patients and students.
- Communicate, conduct, and demonstrate respect for others in a friendly, kind, courteous, pleasant, polite, and professional manner.
- Practice good personal hygiene.
- Dress appropriately so as to promote and maintain a positive professional image.
- Participate whenever possible in local, regional, and national professional associations.



supervisor initials/Date
11/2/15



employee initials/Date
10-31-15

**NORTH DAKOTA STATE UNIVERSITY
DEPARTMENT OF PHARMACY PRACTICE
POSITION DESCRIPTION**

Marketa Marvanova, Pharm.D., Ph.D., BCGP, BCPP

FACULTY APPOINTMENT:

Chair, Department of Pharmacy Practice
Associate Professor
12-Month Tenure Track
Department of Pharmacy Practice

RESPONSIBILITIES:

Administration: 50% Teaching: 15% Scholarship: 25% Service: 10%

Responsibilities of this position will include but not be limited to the following:

ADMINISTRATION:

- Serve as Department Chair for Pharmacy Practice which includes but is not limited to the following responsibilities: overseeing and supervising all service, education and research activities that occur in the Department; managing Departmental personnel (including a Vice Chair), operating budget and partnerships with residency programs; recruiting new faculty; coordinating Pharmacy Practice faculty teaching assignments; facilitating monthly Departmental faculty meetings; working with College administrators to mentor faculty and provide the necessary leadership to ensure that junior faculty successfully earn tenure and/or promotion; conducting annual performance reviews of Departmental faculty and staff; preparing the Department's annual report; facilitating Departmental assessment reports; and performing other duties and projects as assigned by the Senior Associate Dean or the Dean of the College.
- Serve as a member of the College Administrative Council
- Support College sponsored activities through attendance whenever possible to include: faculty functions, student functions, student commencement and hooding ceremonies, and continuing education conferences.

TEACHING:

- Teach a minimum of 3.5 workload credits in the professional pharmacy program as per the College Workload guidance document.
- Serve as an academic advisor for pharmacy students as assigned by the School of Pharmacy.

SCHOLARSHIP:

- Make ongoing efforts to obtain extramural funding to support teaching, service, and scholarly activities.
- Make ongoing efforts to present and publish scholarly activities related to service, education, and scholarly activities at local, regional, and national meetings and in refereed journals.

SERVICE:

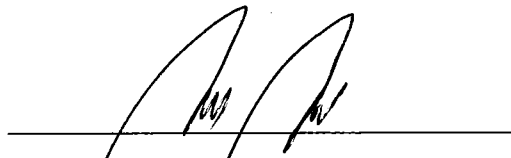
- Serve on at least one College/School Committee or University Committee as assigned by the College.

GENERAL RESPONSIBILITIES:

- Attend and participate in Department and College faculty meetings.
- Read and abide by all rules and regulations for faculty of North Dakota State University as outlined in the faculty handbook.
- Maintain high standards of professional and ethical behavior; and respect and abide by the Mission, Vision, and Core Values of the College established by the faculty where honesty, integrity, and collegiality guide all interactions with students, faculty, staff, administration, and the public.
- Maintain active pharmacist licensure in the State of North Dakota.
- Dress appropriately, practice good personal hygiene, and conduct one's activities and actions in a professional manner so as to maintain an image that reflects positively on the College
- Participate whenever possible in local, regional, and national professional associations.

Effective May 2018

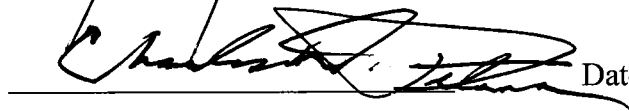
Faculty/Chair Signature: _____



Date: _____

5/10/18

Dean Signature: _____



Date: _____

5/10/18

**NORTH DAKOTA STATE UNIVERSITY
COLLEGE OF HEALTH PROFESSIONS
POSITION DESCRIPTION**

PHARMACEUTICAL SCIENCES TENURE FACULTY APPOINTMENT:

Jagdish Singh, Ph.D.
Professor and Chair
Department of Pharmaceutical Sciences

FIELD OF STUDY

Pharmaceutics and Novel Drug Delivery

TEACHING, RESEARCH, AND SERVICE RATION

Teaching: 30% Research: 40% Service: 30%

RESPONSIBILITIES


Responsibilities of this position will include but not be limited to the following:

- Read and abide by all rules and regulations for faculty of North Dakota State University as outlined in the faculty handbook.
- Serve as Department Chair for Pharmaceutical Sciences which includes but is not limited to the following responsibilities: overseeing and supervising all service, education, and research activities of the Department; managing Departmental personnel, operating budget, and the graduate program; recruiting new faculty; coordinating faculty teaching assignments; facilitating monthly departmental faculty meetings; developing and mentoring faculty within the Department and provide the necessary leadership to assist them in becoming promoted and tenured within the Department; conducting annual performance appraisals for Department faculty and staff; preparing the departmental Annual Report; facilitating Departmental Assessment Activities and Annual Assessment Report; representing the Department outside the College at various professional meetings and functions; and performing other duties and projects as assigned by the Dean of the College and School of Pharmacy.
- Serve as a member of the College Administrative Council.
- Serve on at least one College Committee and at least one University Committee as assigned by the College.
- Serve as an academic advisor for pharmacy students as assigned by the School of Pharmacy.

Jagdish Singh, Ph.D.
Professor and Chair
Department of Pharmaceutical Sciences
College of Health Professions

- Participate in didactic instruction of students in the pharmacy professional program as assigned by the School of Pharmacy.
- Whenever possible, make ongoing efforts to obtain extramural funding to support teaching, service, and scholarly activities.
- Make ongoing efforts to present and publish scholarly activities related to service, education, and scholarly activities at local, regional, and national meetings and in refereed journals.
- Whenever possible, attend Departmental, School of Pharmacy, and College faculty meetings.
- Participate in any special projects or activities as assigned by the Dean of the College and School of Pharmacy.
- Through attendance whenever possible, support College sponsored activities including: faculty functions, student functions, student commencement and hooding ceremonies, continuing education conferences, and state, national, and international professional and scientific meetings.
- Maintain high standards of professional and ethical behavior; and respect and abide by the Mission, vision, and Core Values of the College and School of Pharmacy established by the faculty where honesty, integrity, and collegiality guide all interactions with students, faculty, staff, administration, and the public.
- Contribute to a positive work environment through cooperation and collaboration with others by developing and maintaining good working relationships with staff, faculty, employees, patients, and students.
- Communicate, conduct, and demonstrate respect for others in a friendly, kind, courteous, pleasant, polite, and professional manner.
- Practice good personal hygiene.
- Dress appropriately so as to promote and maintain a positive professional image.

J. Singh 10/18/18
employee initials/date

 10/19/18
supervisor/Dean initials/date

Curriculum Vitae Summary Charles D. Peterson, Pharm.D.

Education

1978	Post-Doc.	Post-doctoral Research Fellowship in Clinical Toxicology University of Minnesota and the Hennepin Poison Center, Hennepin County Medical Center, Minneapolis, Minnesota
1977	Pharm.D.	Doctor of Pharmacy (Pharm.D.), College of Pharmacy, University of Minnesota, Minneapolis, Minnesota
1976	B.S.	Bachelor of Science in Pharmacy, College of Pharmacy University of Minnesota, Minneapolis, Minnesota

Employment History

2015-Present	Dean and Professor, College of Health Professions North Dakota State University, Fargo, North Dakota
2015-Present	Dean and Professor, School of Pharmacy, North Dakota State University, Fargo, North Dakota
2006-2014	Dean and Professor, College of Pharmacy, Nursing, and Allied Sciences, North Dakota State University, Fargo, North Dakota
1996-2005	Dean and Professor, College of Pharmacy, North Dakota State University, Fargo, North Dakota
1995-1996	Interim Dean, College of Pharmacy, North Dakota State University, Fargo, North Dakota
1989-1995	Associate Dean and Professor of Pharmacy Practice, College of Pharmacy, North Dakota State University, Fargo, North Dakota
1982-89	Associate Professor, College of Pharmacy, University of Minnesota
1978-81	Assistant Professor, College of Pharmacy, University of Minnesota
1977-78	Clinical Instructor, College of Pharmacy, University of Minnesota, Minneapolis, Minnesota

Selected Experiences and Activities

2018	Chair, NDSU Search Committee for Interim Provost
2018-2019	NDSU Team Lead, Sanford Imagenetics Research Collaboration with NDSU
2015-2016	Chair, NDSU Search Committee for HDE Dean
2014-Present	Chair, NDSU Ebola Planning Task Force
2014	Recipient, Bowl of Hygeia Award, North Dakota Pharmacists Association
2013-2014	NDSU Program Acquisition Team, Sanford College of Nursing, Bismarck, ND
2013-2014	LCME Accreditation Advisory Committee, UND School of Medicine & Health Sciences
2010-Present	Dean Mentor & Facilitator, AACP Academic Leadership Fellows Program
2009-2010	Member, President's Budget Development Committee
2009-2010	Member, NDSU H1N1 Crisis Management Response Team
2008-2010	Chair, Academic & Education Committee, President's Council on Alcohol and Other Drugs
2007-2008	Chair, Evaluation Committee for Dean of Graduate School
2006-2007	Member, Search Committee, NDSU Director of Equity and Diversity
2006-Present	Member, NDSU Research Advisory Council
2006-Present	Member, Fargo/Moorhead Economic Development – Life Sciences Committee
2004-2005	Chair, NDSU Search Committee for Dean of Engineering and Architecture
2004-2006	Member, Board of Directors, NDSU Research Foundation.
2003-2010	Member, NDSU Alcohol and Drug Policy and Prevention Committee
2003-2004	Member, NDSU Computer Policy Ad Hoc Committee
2002-2003	Chair, NDSU Search Committee for Director of Information Technology
2001-2007	Member, President's Diversity Council

2000-Present	Member, President's Council
1999-2000	Chair, NDSU Search Committee for the Vice President for Research, Creative Activities, and Technology Transfer
1998-99	Chair, NDSU Search Committee for the Dean of Business Administration
1998	Consultant Evaluator for the North Central Association, Evaluation of Southwestern Oklahoma State University, School of Pharmacy Request for New Doctoral Program, Weatherford, Oklahoma, (June 1998).
1997-99	Chair, NDSU Commission on Alcohol and Other Drugs, North Dakota State University, Fargo, North Dakota.
1995-Present	Member, NDSU Dean's Council
1993-2007	Evaluation Team Member For Accrediting Colleges of Pharmacy, Accreditation Council for Pharmacy Education (ACPE), Evaluation of: Idaho State University (March 2011); University of Wyoming, Laramie, WY (April 2007); Ferris State College, Big Rapids, MI (October 2004); University of Montana, Missoula, MT (April 2000); Idaho State University, Pocatello, Idaho (October 1998); University of Wyoming, Laramie, WY (September 1996); Washington State University, Pullman, WA (April 1996 and 1993).
1989-1997	Chairman, Department of Pharmacy Practice, College of Pharmacy, North Dakota State University, Fargo, North Dakota
1989-1995	Chairman, Institutional Review Board For the Protection of Human Research Subjects, Division of Graduates Studies and Research, North Dakota State University, Fargo, North Dakota
1989-1995	Chairman, Curriculum Committee, College of Pharmacy, North Dakota State University, Fargo, North Dakota

Journal Reviewer (Most Recent)

The Journal of Pharmacy Technology
The Annals of Pharmacotherapy

Peer-Reviewed Publications (Selected)

Scott DM, Friesner D, Udem T, Anderson G, Sem K, and Peterson CD. Perceived Sustainability of Community Telepharmacy in North Dakota. Journal of the American Pharmacists Association. 2017; 57(3):362-368.e5.

Jones KM, Blumenthal DK, Burke JM, Condren M, Hansen R, Holiday-Goodman M, Peterson CD. Interprofessional Education in IPPEs: Current status and strategies to improve implementation in US colleges of pharmacy. The Journal of the Pharmaceutical Education, 2012; 76(5) Article 80.

Scott DM, Friesner DL, Rathke AM, Peterson CD, Anderson HC. Does Operating a Community Telepharmacy Practice Associated with Different Types of Dispensing Errors? Evidence from the North Dakota Telepharmacy Project. The Journal of the American Pharmacists Association, 2012, Vol. 52, e97-e104.

Scott DM, Friesner DL, Rathke AM, Peterson CD, Anderson HA. Do Remote Community Telepharmacies Have Higher Medication Error Rates than Traditional Community Pharmacies ? Evidence from the North Dakota Telepharmacy Project. The Journal of the American Pharmacists Association. 2011;51(4):48-58.

Peterson CD, Rose J, Anderson HC. Chapter 17: Rural Health and Telepharmacy: Public Health Challenges and Opportunities. pp 357-388. In *The Pharmacist in Public Health, Education, Applications, and Opportunities*. Truong HA, Bresette JL, and Sellers JA (eds), American Pharmacists Association, August 2010.

Peterson CD, Scott DM, Rathke AM, Killingsworth P, and Hill G. Establishing a Central Order Entry System for Delivering Telepharmacy Services to Remote Rural Hospitals. The Journal of Pharmacy Technology, 2010;26:179-86.

Khan S, Snyder HW, Rathke AM, Scott DM, Peterson CD. Is there a Successful Business Case for Telepharmacy. J Telemedicine and eHealth. 2008;14:235-244.

Peterson CD, Rathke AM, Skwiera J, and Anderson HC. Hospital Telepharmacy Network: Delivering Pharmacy Services in Rural Hospitals. The Journal of Pharmacy Technology 2007;23:158-65.

Peterson CD and Anderson HC. Chapter Ten: Telepharmacy. In *Telemedicine Technical Assistance Document: A Guide to Getting Started in Telemedicine*. Edited by Joseph Tracy and Dena Puskin, Office for the Advancement of Telehealth, Division of Health Resources and Services Administration of Health and Human Services, pp. 206-240, copyright 2004.

Peterson CD and Anderson HC. The North Dakota Telepharmacy Project: Restoring and Retaining Pharmacy Services in Rural Communities. *The Journal of Pharmacy Technology* 2004; 20: 28-39.

Magarian EO and Peterson CD. AmbCare(c) - A Relational Database for Implementing a Community Pharmacy Ambulatory Care Teaching Program. *American Journal Pharmaceutical Education*, Fall Issue, 1995;59(3):256-265.

Feldstein TJ, Swegarden JL, Atwood GF, and Peterson CD. Ribavirin Therapy: Implementation of Hospital Guidelines and Effect on Usage and Cost of Therapy. *Pediatrics*, 1995;96(1):14-17.

Koo J, Miller D, and Peterson CD. Gentamicin Pharmacokinetics in Elderly Patients with Normal Renal Function. *The Journal of Pharmacy Technology*, 1994;10(1):14-17.

Magarian EO, Peterson CD, McCullagh ME and Kuzel RJ. Role Model Ambulatory Care Clinical Training Site in a Community-Based Pharmacy. *American Journal Pharmaceutical Education*, 1993;57:1-8.

Goldberg DE, Baardsgaard G, Johnson MT, Jolowsky CM, Shepherd M, and Peterson CD. Computer-Based Program For Identifying Medication Orders Requiring Dosage Modification Based On Renal Function. *American Journal of Hospital Pharmacy*, 1991;48:1965-9.

Feldstein TJ, Swegarden J, Atwood GF, and Peterson CD. Unrestricted Use of Ribavirin in a 400-bed Teaching Hospital: Comparison to Published Guidelines and Impact on Cost. *Pharmacotherapy*, 1991;11(3):283.

Peterson CD, Schultz NJ, Goldberg DE. Pharmacist Monitoring of the Timing of Preoperative Antibiotic Administration. *American Journal of Hospital Pharmacy*. 1990;47:384-6.

Peterson CD, Gentry LO, Kaiser AB, Slama TG, P & T Update on Cefuroxime Sodium: A Review of Efficacy and Cost Considerations, Roundtable discussion, *Hospital Formulary*, 1989;24(Supp C):10-15.

Lake KD, Peterson CD, Comment: Vancomycin Dosing Methods, *Drug Intelligence and Clinical Pharmacy*, 1989;23:618-9.

Peterson CD, Goldberg DE, Pharmacy-coordinated Process for Evaluating Physician Drug Prescribing, *American Journal of Hospital Pharmacy*, 1989;46:1787-91.

Lake KD, Peterson CD, Evaluation of a Method for Initiating Vancomycin Therapy: Experience in 205 Patients, *Pharmacotherapy*, 1988;8(5):284-6.

Peterson CD, Lake KD, Arom KV, Love K, Antibiotic Prophylaxis in Open Heart Surgery Patients: Comparison of Cefamandole and Cefuroxime, *Drug Intelligence and Clinical Pharmacy*, 1987;21:728-32.

Peterson CD, Lake KD, Arom KV, Love K, Antibiotic Prophylaxis in 3,037 Open Heart Surgery Patients: Comparison of Cefamandole and Cefuroxime, Harvey Whitney Books Company, Cincinnati, Ohio, *Clinical Abstracts*, Volume 6, Number 5, July/August 1987.

Peterson CD, Prolonged Neurologic Complications from Single Dose of Aminoglycoside Unlikely, Problems and Solutions, *Postgraduate Medicine*, 1987;81(8):39 & 42.

Peterson CD, Lake KD, Reducing Prophylactic Antibiotic Costs in Cardiovascular Surgery: The Role of the Clinical Pharmacist, *Drug Intelligence and Clinical Pharmacy*, 1986;20(2):134-7.

- Lake KD, Peterson CD, A Simplified Dosing Method for Initiating Vancomycin Therapy, Pharmacotherapy, 1985;5(6):340-4.
- Lake KD, Peterson CD, Comparison of Vancomycin Serum Concentrations Obtained with Standard vs Individualized Regimens, Drug Intelligence and Clinical Pharmacy, 1985;19:459A.
- Peterson CD, Leeder SJ, Sterner S, Glucagon Therapy for Beta-Blocker Overdose, Drug Intelligence and Clinical Pharmacy, 1984;18:394-8.
- Lake KD, Brown DC, Peterson CD, Digoxin Toxicity: Enhanced Systemic Elimination During Oral Activated Charcoal Therapy, Pharmacotherapy, 1984;4:161-3.
- Saddiqui A, Peterson CD, Thallium Poisoning: A Review, Veterinary and Human Toxicology, 1983;25:16-22.
- Peterson CD, Rosborough TK, Cost of Intravenous Antibiotic Therapy: Frequency of Administration as a Factor, Postgraduate Medicine, 1983;74:304-5.
- North DS, Peterson CD, Efficacy of Naloxone in Clonidine Poisoning, American Journal of Diseases of Children, 1983;137:807-8.
- Peterson CD, Collins A, Himes JM, Bullock M, Keane WF, Ethylene Glycol Poisoning: Pharmacokinetics During Therapy with Ethanol and Hemodialysis, New England Journal of Medicine, 1981;304:21-3.
- Peterson CD, Collins A, Keane WF, Himes JM, Ethanol for Ethylene Glycol, New England Journal of Medicine, 1981;304:977.
- North DS, Wieland MJ, Peterson CD, Krenzelok EP, Naloxone Administration in Clonidine Overdosage, Annals of Emergency Medicine, 1981;10:397.
- North DS, Thompson JD, Peterson CD, Effect of Activated Charcoal on Ethanol Blood Levels in Dogs, American Journal of Hospital Pharmacy, 1981;38:864-6.
- Peterson CD, Oral Ethanol Doses in Patients with Methanol Poisoning, American Journal of Hospital Pharmacy, 1981;38:1024-7.
- Peterson CD, Seizures Induced by Acute Loxapine Overdose, American Journal of Psychiatry, 1981;138:1089-91.
- Peterson CD, Fifield GC, Emergency Gastrotomy for Acute Iron Poisoning, Annals of Emergency Medicine, 1980;9(5):262-4.
- Peterson CD, Fifield GC, Mining for Iron, Emergency Medicine, October 1980;84-5.
- Pentel PR, Peterson CD, Asystole Complicating Physostigmine Treatment of Tricyclic Antidepressant Overdose, Annals of Emergency Medicine, 1980;9(11):588-90.
- Peterson CD, Seizures Induced by Acute Loxapine Overdose, Proceedings of the 1980 Annual AAPCC/AACT/ABMT/CACAT Meeting, Veterinary and Human Toxicology, 1980;22(sup 2):52-5.
- Sioris LJ, Peterson CD, Krenzelok EP, Acid Ingestion Neutralizing Agents, Journal of the American College of Emergency Physicians, 1979;8(3):124.
- Peterson CD, Electrolyte Depletion Following Emergency Stomach Evacuation, American Journal of Hospital Pharmacy, 1979; 36:1366-9.

Peer-reviewed Papers, Scientific Abstracts, & Invited Presentations At Professional Meetings (Selected)

Friesner DL, Scott DM, and Peterson CD. Does Operating a Community Telepharmacy Practice Cause Pharmacists to Make Different Types of Dispensing Errors ? Preliminary Evidence From the North Dakota Telepharmacy Project, 2010 American Association of Colleges of Pharmacy Annual Meeting, Seattle, Washington, July 11-14, 2010.

Scott DM, Friesner DL, and Peterson CD. Comparing Error Rates Across Community Telepharmacies and Traditional (Nontelepharmacy) Community Pharmacies. 2010 American Association of Colleges of Pharmacy Annual Meeting, Seattle, Washington, July 12, 2010.

Friesner DL, Scott DM, Peterson C. Does Operating a Community Telepharmacy Affect Dispensing Errors within the Practice? AACP Annual Meeting, Poster Session, July 11-14, 2010, Seattle.

Scott DM, Friesner DL, Miller D, Naughton C, Albano C, Peterson C. Initiating a Masters in Public Health (M.P.H.) Degree in a College of Pharmacy. AACP Annual Meeting, Poster Session, July 17-22, 2009, Boston.

Albano CD, Friesner DL, Miller DR, Scott DM, Naughton CA, Peterson CD. A Model for Public Health as a Team Endeavor. Poster Session, July 17-22, 2009, Boston .

Scott DM, Rathke AM, Friesner DL, Peterson CD, Anderson HC. Comparison of Dispensing Error Rates Between Telepharmacy Sites vs. Comparison Group. APhA Annual Meeting, Poster Session, April 3-6, 2009, San Antonio.

Peterson CD. Telepharmacy Solutions for Small and Rural Hospitals: The North Dakota Model. Educational Session 207-L04. American Society of Health System Pharmacists 2007 Midyear Clinical Meeting and Exhibition. Las Vegas, NV, December 2, 2007

Scott DM, Anderson, H, Rathke A, Peterson C: Medication Dispensing Error Study of Telepharmacy and Comparison Sites in North Dakota. American Pharmacists Association Annual Meeting, Poster Session, March 17-21, 2006, San Francisco.

Grants and Contracts (Selected)

Development of a Clinical Pharmacy Teaching Program at Sanford Medical Center, Fargo, ND, (Principal Investigator) July 1989, renewed 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
\$3,324,592.00 accumulative total (funded by Sanford Medical Center, Fargo, ND)

Establishment of Physician Faculty Services at Sanford Clinic North, Fargo, ND, (Principal Investigator) June 2014, renewed 2015, 2016, 2017, 2018
\$534,028 accumulative total (funded by Sanford Medical Center, Fargo, ND)

Development of a Clinical Pharmacy Teaching Program at St. Alexius Medical Center in Bismarck, North Dakota, (Principal Investigator) February 1991, renewed: 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
\$2,607,967 accumulative total (Funded by St. Alexius Medical Center, Bismarck, ND)

Development of a Clinical Pharmacy Teaching Program at Lake Region HealthCare Corporation, Fergus, Falls, Minnesota, (Principal Investigator) July 1994, renewed 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
\$1,679,756 accumulative total (Funded by Lake Region HealthCare Corporation).

Development of a PGY1 Pharmacy Practice Residency at Trinity Health (Principal Investigator) grant awards include: July 1, 2013, renewed 2014
\$49,500 accumulative total (funded by Trinity Health, Minot, ND)

Development of Community Pharmacy Ambulatory Care MTM Specialty Practice
(Principal Investigator) grant awards include: January 7, 2013, renewed 2014
\$95,867 accumulative total (funded by Corporate Thrifty White Pharmacy, Plymouth, MN)

Developing Pharmacy Services at the NDSU Student Health Service (Principal Investigator)
2006, renewed 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014.
\$1,069,369 accumulative total (funded by the NDSU Student Health Service)

About the Patient Clinical Coordinator
(Principal Investigator)
\$25,000 per year
Funded by the North Dakota Pharmacists Association and the North Dakota Pharmacy Service Corp, January 2012

MSUM Vaccinology Teaching Contract
(Principal Investigator)
\$40,000
Funded by Minnesota State University – Moorhead, December 19, 2011

Tri-College Vaccinology Initiative
(Principal Investigator)
\$50,000
Funded by North Dakota Department of Commerce, September 30, 2011

Development of a Clinical Pharmacy Teaching Program at the Allergy and Asthma Center, Fargo, ND (Principal Investigator), November 2009, and renewed 2010.
\$77,682.00 accumulative total (funded by the Allergy and Asthma Center, Fargo, ND)

Center for Biopharmaceutical Research and Production (CBRP)
(Principal Investigator)
North Dakota Centers of Excellence Commission
\$2,000,000 funded July 1, 2009
Funded by the State of North Dakota, North Dakota Department of Commerce

The North Dakota Telepharmacy Project: Restoring and Retaining Pharmacy Services in Medically Underserved Rural Communities (Principal Investigator and Project Director) grant awards include September 2002, September 2003, September 2004, September 2005, and September 2008.
\$3,311,775.00 accumulative total (Funded by a federal grant supported by Office for the Advancement of Telehealth, Office of Health Information Technology, Health Resources and Services Administration of Health and Human Services)

Development/Fund-Raising

Since 1995, the College's development program under the direction and leadership of the Dean has raised over \$40 million dollars in annual and deferred gifts for the College. During this same period, the College's student scholarship program has grown from \$36,975/year to disbursing more than \$337,000/year to deserving students. Total endowments for the College currently exceed \$7.9 million.

CYNTHIA A. NAUGHTON**CURRICULUM VITAE**

December 10, 2019

2935 40th Ave S. Unit A
Fargo, ND 58104

PROFESSIONAL DATA

Title	Senior Associate Dean College of Health Professions North Dakota State University
	Associate Professor (with Tenure) College of Health Professions North Dakota State University
Business Address	NDSU College of Health Professions NDSU Dept 2650, PO Box 6050 Fargo, North Dakota 58108 Phone (701) 231-8487 Cynthia.Naughton@ndsu.edu
Licensure	Minnesota license #112840-2 North Dakota license #3762
Certifications	Board of Pharmaceutical Specialties Pharmacotherapy Specialist (BCPS# 3035534) 2003-2010; 2011-2019
	Diabetes Disease State Management Certificate NDSU College of Pharmacy, Nursing, Allied Science and North Dakota Pharmaceutical Association, 2008 - 2010
	Tobacco Treatment Specialist (ID# 09-05-015) Mayo Clinic; September 2005

EDUCATION

1995	Doctor of Pharmacy North Dakota State University Fargo, North Dakota
1986	Masters of Science, Pharmacy North Dakota State University Fargo, North Dakota
1978	Bachelor of Science, Pharmacy North Dakota State University Fargo, North Dakota

ADMINISTRATIVE RESPONSIBILITIES AND ACCOMPLISHMENTS

SENIOR ASSOCIATE DEAN (APRIL 2013 TO PRESENT)

Responsibilities

- Provide leadership, direction, and administrative oversight for the College in the absence of the Dean.
- Provide administrative oversight for all matters related to academic affairs and assessment for the College.
- Promote, encourage, and coordinate interprofessional curricula and co-curricular efforts for the College.
- Meet with students, chairs, faculty, and the Office of Student Affairs to resolve student academic issues.
- Ensure compliance with all accreditation standards related to the pharmacy program.
- Oversee the co-curriculum and coordinate and manage curriculum quality improvement efforts for the Pharmacy Program.
- Provide leadership, direction, and administrative oversight for all matters related to the Department of Allied Sciences.

Accomplishments

- Key role in developing the PharmD co-curriculum, operationalized the plan, created a student on-line portfolio to manage student participation, and implemented the plan spring 2019.
- Initiated, facilitated, and assisted a faculty task force to identify the role of Entrustable Professional Activities in the PharmD curriculum.
- Initiated, led the development of, implemented, and manage “Interprofessional Education Grand Rounds” in the College.
- Developed a mechanism to notify and advise faculty of “Students at Risk” in the professional PharmD program.
- Expanded interprofessional educational offerings to include NDSU Dietetics and Minot State Social Work students.
- Initiated, coordinated, & assisted with the implementation of ExamSoft computerized testing in the PharmD program.
- Initiated and led a Professionalism Task Force to define and incorporate Professionalism values into the PharmD Ability Based Outcomes document.
- Initiated and led an Educational Outcomes Task Force to update and align the PharmD Ability Based Educational Outcomes document to the new ACPE 2016 Accreditation Standards.
- Responsible for developing and writing over 75% of the interprofessional education curricula in the College.
- Developed guidelines for funding College sponsored pharmacy residencies.
- Researched, planned, and successfully implemented the “iPad Initiative” to incorporate iPad technology in the professional curriculum.
- Researched, developed, and implemented a faculty workload policy for the College.
- Serve as an evaluator for the Accreditation Council for Pharmaceutical Education.
- Completed the AACP Academic Leadership Fellows Program, 2014.

ASSOCIATE DEAN FOR ACADEMIC AFFAIRS AND ASSESSMENT (JULY 2008 – APRIL 2013)

Accomplishments

- Played a key role in planning, developing, and garnering successful approval of a new Master of Public Health (MPH) degree.
- Wrote the Stage 1 & Stage 2 proposal obtaining approval for a new Vaccinology Minor.
- Initiated, developed, and implemented a systematic, comprehensive, PharmD program evaluation plan.
- Initiated, developed, and implemented a systematic Course Evaluation Plan in the PharmD program to insure the curricular structure, content, organization, and pedagogy support student achievement of the Program Ability Based Outcomes.
- Successfully re-designed and facilitated implementation of the new pre-professional and professional PharmD curriculum.
- Chaired the ACPE 2012 Accreditation Self-Study for the Professional Pharmacy Degree program.
- Initiated, researched, and implemented curriculum mapping into the PharmD program.

PROFESSIONAL EXPERIENCE

4/13 – Present	Senior Associate Dean North Dakota State University College of Health Professions Fargo, North Dakota
7/08 – 4/13	Associate Dean for Academic Affairs and Assessment North Dakota State University College of Pharmacy, Nursing, & Allied Sci Fargo, North Dakota
7/09 – Present	Associate Professor North Dakota State University College of Pharmacy, Nursing & Allied Sci Fargo, North Dakota
7/00 – 7/09	Assistant Professor North Dakota State University College of Pharmacy, Nursing & Allied Sci Fargo, North Dakota

Joint Clinical Appointments

6/02 – 6/08	Clinical Pharmacy Specialist Family HealthCare Center Fargo, North Dakota
2/02 – 6/02	Clinical Pharmacy Specialist MeritCare Kidney Dialysis Unit Fargo, North Dakota
6/00 – 6/02	Nephrology Pharmacy Resident Preceptor Dakota Heartland Hospital Fargo, North Dakota

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6/00 – 2/02	Pharmacy Clinical Coordinator Dakota Heartland Health Systems Fargo, North Dakota
3/96 – 2/02	Pharmacy Clinical Coordinator Dakota Heartland Health Systems Fargo, North Dakota
1/94 – 7/00	Adjunct Clinical Professor North Dakota State University College of Pharmacy Fargo, North Dakota
1/94 – 2/96	Pharmacy Clinical Specialist Dakota Heartland Health Systems Fargo, North Dakota
1/93 – 12/95	Relief Pharmacist Medicine Shoppe North – Fargo, North Dakota Target – Moorhead, Minnesota
1/92 – 12/93	Pharmacy Clinical Supervisor Heartland Medical Center Fargo, North Dakota
7/88 – 3/90	Lecturer, North Dakota State University College of Pharmacy Fargo, North Dakota
1/87 – 12/91	Pharmacy Clinical Coordinator St. Ansgar / St. John's Hospitals Fargo, North Dakota
11/79 – 12/86	Staff Pharmacist St. Ansgar Hospital Moorhead, Minnesota
5/78 – 11/79	Staff Pharmacist St. Lukes Hospital Fargo, North Dakota

POSTGRADUATE PROFESSIONAL TRAINING

August 2018	Accreditation Council for Pharmaceutical Education Preparing for a Self-Study training Chicago, Ill.
Sept 2014 – July 2015	Academic Leadership Fellows Program American Association of Colleges of Pharmacy
April 2014	Academy Leadership Certificate Programming American College of Clinical Pharmacists Chicago, Ill.

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March 2013 A Systems Approach to Assessment in Health Professions Education
The Harvard Medical School
Boston, Massachusetts

October 2012 Accreditation Council for Pharmaceutical Education
Evaluator Training
Chicago, Illinois

August 2009 Accreditation Council for Pharmaceutical Education
Preparing for an Accreditation Self-Study Workshop
Chicago, Ill.

March 2008 Diabetes Disease State Management
North Dakota State University and
North Dakota Pharmaceutical Association
Bismarck, ND

November 2007 Team Management of Diabetes
International Diabetes Center
Minneapolis, Minnesota

June 2007 Institute on Evaluation, Assessment, and Outcomes
American Association of Colleges of Pharmacy
Snowbird, Utah

September 2005 Tobacco Treatment Specialist Training
Mayo Clinic, Rochester, Minnesota

May 2005 Institute on Curriculum
American Association of Colleges of Pharmacy
Lansdowne, Virginia

January 2005 Motivational Interviewing Training
ND Dietetics Association
Fargo, ND.

February 2003 Asthma Educators Training
American Lung Association
Monticello, Minnesota

November 1999 Nephrology Traineeship
Hennepin County Medical Center
Minneapolis, Minnesota

April 1999 Anticoagulation Service Traineeship
American Society of Health-System Pharmacists
Research & Education Foundation
James Haley Veterans Medical Center
Tampa, Florida

May 1997 Nephrology Pharmaceutical Care Preceptorship
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania

TEACHING EXPERIENCE – NORTH DAKOTA STATE UNIVERSITY

2017 - 2018 PHRM 582 Academic Leadership APPE Rotation

2016 – 2018 PHRM 350 Introduction to Pharmacy Practice (2 credits)

2015 – current PHRM 379 Introduction to Pharmacy Practice Study Abroad (3 credits)
Ireland 2019
Vienna, Austria 2018
Ireland 2016

2012 – 2018 CHP 400 Interprofessional Health Care Practice (3 credits)

2012 – 2012 PHRM 555 IPPE III (Mentor)

2008 – 2009 PHRM 551 Pharmaceutical Care (P3 Poster Mentor)

2008 – 2009 NURS 632 Advanced Pharmacology II (3 lecture hours / year)

2007 - 2009 NURS 631 Advanced Pharmacology I (6 lecture hours / year)

2006 - 2007 PHRM 552 Pharmaceutical Care (P-3 Poster Mentor)

2006 – 2006 PHRM 351 Pharmaceutical Care (Virtual Patient)

2005 - 2006 PHRM 551 Pharmaceutical Care (Service Learning, Poster Mentor, Virtual Patient)

2004 – 2005 UNIV 189 Skills for Academic Success (1 credit)

2004 – 2005 PHRM 352 Pharmaceutical Care (P-1 Mentor)

2003 – 2004 PHRM 351 Pharmaceutical Care (P-1 Mentor)

2001 – 2001 PSCI 471 Clinical Pharmacokinetics (2 lecture hours)

2001 – 2001 PHRM 458 Intro to Clinical Practice (2 lecture hours)

2000 – 2009 PHRM 537 Renal, Fluid & Electrolytes (3 credits)

1998 – 2000 PHRM 300 Principles of Pharmacology (3 credits)

PEER REVIEWED PUBLICATIONS

Scott DM, Naughton CA, Petry N, Friesner DL. Assessment of Practice Management Entrustable Professional Activities (EPAs) by Pharmacists in North Dakota. Am J Pharm Educ. Accepted 4/3/19, not yet in print.

Scott D, **Naughton CA**, Haugen K, Friesner D. Pharmacy-based Study Abroad Course for Pre-professional and PharmD Students to Learn about Comparative Health Systems. *Am J Pharm Educ*. Posted online July 20, 2018 ahead of print. Accessed @ <https://www.ajpe.org/doi/pdf/10.5688/ajpe6866>.

Naughton CA. Patient-centered communication. *Pharmacy* 2018. 6(1), 18; doi:10.3390/pharmacy6010018 – Published February 13, 2018. Accessed @ <http://www.mdpi.com/journal/pharmacy>

Scott D, **Naughton C**, Haugen K, Friesner D. (2017), “Does a Study Abroad Experience Enhance Pharmacy Students’ Cultural Competence” in *Business & Health Administration Proceedings*, Avinandan Mukherjee, Editor, p. 11. Conference Abstract.

Naughton CA, Schweiger TA, Angelo LB, Bonner CL, Dhing CW, Farley JF. Expanding dress code requirements in the Doctor of Pharmacy program. *Am J Pharm Educ* 2016;80(5) Article 74.

Naughton CA, Friesner D. Correlation of P3 PCOA scores with future NAPLEX scores. *Currents in Pharmacy Teaching and Learning* 2014;6:877-883.

Naughton CA, Friesner D. Comparison of pharmacy students’ perceived and actual knowledge using the pharmacy curricular outcomes assessment. *Am J Pharm Educ* 2012;76(4): Article 63.

Guglielmo J, Edwards DJ, Franks AS, **Naughton CA**, Schonder KS, Stamm P, Thornton P, Popovich NG. Faculty development: A critical appraisal and recommended next steps. *Am J Pharm Educ* 2011;75(6): Article 122.

Murphy S, **Naughton CA**, Friesner D. Academic success and initial labor market outcomes for pharmacy graduates. *Innovations in Pharmacy* 2011;2(1):1-10.

Naughton CA, Friesner DL, Scott DM, Miller D, Albano C. Designing a master of public health degree within a department of pharmacy practice. *Am J Pharm Educ* 2010;74(10):186-95.

Friesner DL, Miller D, Scott DM, **Naughton CA**, Albano C. Rural public health education as a pharmacist-led team endeavor. *JAPHA* 2010;50:207-213

Naughton CA. Drug-induced nephrotoxicity. *Am Fam Physician*. 2008;78(6):743-750.

Naughton CA. Chronic kidney disease. *Pharmat, Inc.* 2006;32(4):1-16.

Naughton CA. Chronic kidney disease: Early detection and treatment. *US Pharm* 2004;11:HS27-HS33.

Naughton CA, Duppong LM, Forbes KD, Sehgal I. Stability of multidose, preserved formulation epoetin alfa in syringes for three and six weeks. *Am J Health-Syst. Pharm.* 2003;60:464-8.

Naughton CA. Establishing pharmaceutical services on a renal dialysis unit. *Am J Health-Syst Pharm* 2002;59:2111-2.

Naughton CA. Aspirin in primary and secondary prevention of coronary artery disease. *North Dakota Health Care Review* 2001; Vol 1(2).

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Forbes D, Hoag SG, Pucino F, **Naughton CA**, O'Neill RE. Peer review of consultant pharmacist services in long-term care facilities. Consultant Pharmacist; Nov/Dec 1988.

OTHER PUBLICATIONS

Rodriguez, **Naughton CA**. 6 Medications that can harm the kidneys. Med Shadow; Balancing Risks and Benefits. Published May 11, 2017 online @ <http://medshadow.org/features/6-medications-can-harm-the-kidneys/>.

MANUSCRIPTS SUBMITTED AND UNDER PEER REVIEWED

PEER REVIEWED BOOK CHAPTERS

Naughton CA, Kiser-Larson N. Book Chapter: Cultural competence and refugees. In *Essentials of Cultural Competence in Pharmacy Practice*. Halbur, KV & Halbur, DA, Ed. American Pharmacists Association. 2008. Washington, DC.

PEER REVIEWED POSTER PAPERS WITH ABSTRACT

“Performance-Based Assessments: Simulations to assess APPE readiness and interprofessional readiness”, *American Association of Colleges of Pharmacy Annual Conference* 2015 (with Eukel H, Fitz A, Frenzel J, and Skoy E). Poster presentation; abstract printed in *American Journal of Pharmaceutical Education* (AJPE 2015;79(5):Article S4).

“Baseline measurements of students’ attitudes and beliefs following curricular revision”, 2014 (with Cernusca D and Maack B) *American Association of Colleges of Pharmacy Annual Conference*. Poster presentation; abstract printed in the *American Journal of Pharmaceutical Education*, 2014, (online: no page number available).

“Public health impact of community-based cardiovascular risk screenings conducted by North Dakota State University pharmacy students and faculty”, *2013 American Society of Health-System Pharmacists Summer Meeting*, (with Focken R, Oetken H, and Stromback C. Poster presentation; abstract printed in the *American Society of Health System Pharmacists*, 2013, (online: no page number available).

“Initiating a Masters in Public Health (M.P.H.) Degree in a College of Pharmacy,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with Scott D, Freisner D, Miller D, Albano C, and Peterson C). Poster presentation; abstract printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

“A Model of Public Health as a Team Endeavor,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with Scott D, Freisner D, Miller D, Albano C, and Peterson C). Poster presentation; abstract printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

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“Curriculum Mapping to Evaluate Curriculum and Enhance Collaboration Among Departments”, 2008 *American Association of Colleges of Pharmacy Annual Conference*. Poster presentation; abstract printed in the *American Journal of Pharmaceutical Education*, 2008, (online; no page number available).

“Improving patient’s awareness of asthma symptoms,” 2004, *National Asthma Educator Conference, Philadelphia* (with Brown W, Henderson M, and Espejo L). Poster presentation; abstract online; no page number available.

GRANTS SUBMITTED AND FUNDED

2019 – 2024	\$53,395 Geriatrics Workforce Enhancement Program U.S. Department of Health and Human Services HRSA-19-008 (Co-PI)
April 2013	\$1500 Advance FORWARD Leadership Development Grant ACE North Dakota Regional Leadership Forum, September 16-18, 2013 (PI)
March 2013	\$1000 National Association of Chain Drug Stores Foundation Million Hearts 2013 Heart to Heart Community Health Fair Grant “Public Health Impact of Community-based Cardiovascular Risk Screenings Conducted by Pharmacy Students at North Dakota State University” (Co-PI)
2012 – 2013	\$4500 NDSU, Faculty Senate Development Committee Instructional Development Grant “Interprofessional Education” (Co-PI)
2001 – 2010	\$1000 / year NDSU Presidential Education Grant
2004 – 2005	\$2000 Fraternal Order of Eagles “Pharmacist’s Interventions to Control Modifiable Risk Factors in Patients with CKD Compared to Standard Medical Care” (PI)
2003 – 2004	\$5000 Fraternal Order of Eagles “Pharmacist’s Interventions to Control Modifiable Risk Factors in Patients with CKD Compared to Standard Medical Care” (PI)
2001 – 2002	\$27,500 Dakota Medical Foundation Residency Funding for Dakota Heartland Kidney Dialysis Unit (PI)
2000 – 2001	\$27,500 Dakota Medical Foundation Residency Funding for Dakota Heartland Kidney Dialysis Unit (PI)

PRESENTATIONS

Accreditation Self-Study Faculty Workshop. NDSU Memorial Union. Fargo, ND. January 2019.

Faculty Co-Curricular and General Advising Retreat. Sudro 27. December 2018.

Accreditation 2020. Pharmacy Faculty Retreat. NDSU Alumni Center. August 2018.

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Women in Pharmacy Leadership, Table Moderator. ND Pharmacy Convention. Fargo, ND. April 2018.

Standards 2016: Me, You, and Accreditation. Pharmacy Faculty Retreat. NDSU Sudro Hall. August 2016.

Getting Technical: Revisiting the Development, Implementation, and Application of PharmD Technical Standards, (with Skoy E. and Wingo BL). Special Session presentation at the *American Association of Colleges of Pharmacy* Annual Meeting, National Harbor, Maryland. July 2015.

Curricular Summit. Pharmacy Faculty Retreat. NDSU Memorial Union. January 2015.

Advance Forward Leadership Panel - Moderator. NDSU January 2014.

Helping Students (and Faculty) Succeed with (or without) Technology in the Classroom. Pharmacy Faculty Retreat. January 2014.

Assessment: Is There an APP for That?. College of Pharmacy, Nursing, and Allied Sciences Faculty Retreat. Holiday Inn, Fargo, ND. August 2013.

Accreditation 2012. Pharmacy Faculty Retreat. NDSU Alumni Center. January 2012.

Accreditation 2012. Pharmacy Faculty Retreat. Bluestem Conference Ctr, Moorhead, MN, August 2011.

Classroom Assessment, Student Learning, and Other Fascinating Topics. NDSU Pharmacy Faculty Retreat. January 2011.

Faculty Development in Academic Pharmacy: Are We Practicing What We Preach? (Invited speaker) AACP Special Session, American Association of colleges of Pharmacy Annual Meeting, Seattle, Washington. July 2010

Beyond Boundaries: Initiating a MPH Program in North Dakota. (Invited speaker) South Dakota Public Health Conference. South Dakota Public Health Association. Sioux Falls, South Dakota. June 2010
Accreditation 2012. NDSU College of Pharmacy, Nursing, & Allied Sciences PharmD Advisory Board. Phoenix, Arizona. Feb 2010

Promotion and Tenure Tips. NDSU Pharmacy Faculty Development Research Seminar Series. Feb 2010

Hypertension. North Dakota Nurses Association. Bismarck, North Dakota. October 2008

Asthma: Update on the New EPR3 Guidelines. Family HealthCare Center Provider Meeting. May 2008

Empowering Patients. (Invited Speaker) North Dakota Pharmacists Association. Fargo, North Dakota. May 2008

Empowering Patients. (Invited Speaker) North Dakota Pharmacists Convention. Bismarck, North Dakota. April 2008

Use of Statins in Patients with Elevated Liver Enzymes. Family HealthCare Center Provider Meeting. November 2007

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Hypertension Update. Family HealthCare Center Provider Meeting. November 2006

Chronic Kidney Disease: Filtering the Facts. (Invited Speaker) NDSU Homecoming Seminar, October 2006. Fargo, ND.

Patient Self-Management Support. Family HealthCare Center. September 2006

Methadone Use for Chronic Pain Management. Family HealthCare Center. December 2005

Pharmacy Career Alternatives Panel. (Invited Speaker) APhA-ASP Midyear Regional Meeting. Moorhead, Minn. October 2004.

Professionalism in the Workplace. (Invited Speaker) Northland Association of Pharmacy Technician Fall Conference. Fargo, ND. September 2004.

Curriculum Mapping. NDSU Faculty Retreat. August 2004

Management of CKD in the Primary Care Setting. (Invited Speaker) NDSU Pharmacy Midwinter CE. Bismarck, ND. February 2004

Chronic Kidney Disease. Family HealthCare Center. Fargo, ND. October 2003

Herbal Supplements. Presentation Sisters Convent. Fargo, ND. May 2003

Herbal Supplements. Sts. Anne & Joachim Health Fair. Fargo, ND. March 2003

Your Cardiovascular Health. Family HealthCare Center Patient Outreach. Fargo, ND. February 2003

Managing the Deadly Duo. (Invited Speaker) National Association of Pharmacy Technician Annual Meeting.
Fargo, ND. August 2002

Fluid and Electrolytes 101. (Invited Speaker) ND Midwinter Pharmacy Seminar. Bismarck, ND. Feb. 2002

Brown Bag Pharmacy. Sts. Anne and Joachim Health Fair. April 2002

Implementation of Pharmaceutical Care Services in a Renal Dialysis Unit. (Invited Speaker) American Society of Health System Pharmacists Midyear Clinical Meeting. New Orleans, LA. December 2001

Managing the Deadly Duo. (Invited Speaker) Northland Association of Pharmacy Technicians. Fargo, ND. September 2001

Pharmaceutical Considerations in the Renal Patient. (Invited Speaker) North Dakota Pharmaceutical Association. Fargo, ND. April 2001

Cardiovascular Medications. Mended Hearts Support Group. Fargo, ND. April 2001.

Just Give Me A Pill. (Invited Speaker) Regional Brain Injury Conference. Fargo, ND. April 2001.

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Herbal Remedies. Dakota Heartland Health System CME. Fargo, ND. March 2001

Erythropoietin Use in Kidney Dialysis Patients. Dakota Heartland Health Systems Pharmacy and Dialysis Departments. March 2001

Iron Protocol for Anemia Management. Dakota Heartland Health Systems Pharmacy and Dialysis Departments. January 2001

Osteoarthritis. Dakota Heartland Health System Auxiliary. Fargo, ND August 2000
Herbal Medications. First United Methodist Healthfair. Fargo, ND. March 2000

Understanding Your Medications. St. Anthony's Church Healthfest. Fargo, ND. November 1999

Antibiotic Resistance/ Problem Pathogens. (Invited Speaker) Network 11 Renal Nurse Association Annual Meeting. St. Cloud, Minnesota. October 1998.

The Top Ten Nutraceuticals: David Letterman Style. (Invited Speaker) American Association of Pharmacy Technicians - Fargo Chapter. Fargo, North Dakota. March 1997.

Strategies to Reduce Antibiotic Resistance. (Invited Speaker) American Association of Critical Care Nurses, Fargo Chapter. VA Medical Center. Fargo, North Dakota. December 1996.

Over the Counter Medication Safety. (Invited Speaker) Women's Showcase Health & Wellness Track. Fargo Dome. Fargo, North Dakota. April 1996.

Antibiotic Resistance. KVLV TV interview. Fargo, North Dakota. May 1996.

Endocarditis. Medical Grand Rounds. VA Medical Center. Fargo, North Dakota. December 1995

Current Concepts in TPN. Medical Resident Conference. VA Medical Center. Fargo, North Dakota. November 1995.

Drugs and Aging. Heartland Medical Center Auxiliary. Heartland Medical Center. Fargo, North Dakota. March 1994.

New Drugs. Heartland Medical Center Nursing Staff. Heartland Medical Center. Fargo, North Dakota. January 1994.

Respiratory Medication Update. Nursing Continuing Education program sponsored by Moorhead Area VoTechnical Institute. Moorhead, Minnesota. October 1991.

New Drugs. St. Ansgar & St. John's Nursing Staff. Fargo, North Dakota. June 1991.

Psychotropic Medication Update. Nursing Continuing Education program sponsored by Moorhead Area VoTechnical Institute. Moorhead, Minnesota. May 1991.

Pediatric Drug Therapy. St. Ansgar & St. John's Nursing Staff. Fargo, North Dakota. December 1990.

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CVA Medications. Fargo Moorhead Stroke Support Group. Fargo, North Dakota. October 1990.

Inflammatory Bowel Disease Medication Update. (Invited Speaker) Inflammatory Bowel Disease Conference sponsored by Moorhead Area VoTechnical Institute. Moorhead, Minnesota. April 1989.

Pulmonary Physical Assessments. (Invited Speaker) Fall Continuing Education Program sponsored by North Dakota State University College of Pharmacy. Fargo, North Dakota. March 1989.

COPD Medication Update. American Lung Association COPD Support Group. Fargo, North Dakota. November 1988.

Pharmacology Series. St. Ansgar & St. John's Nursing Staff. Fargo, North Dakota. Jan 1987 - Nov 1988.

SERVICE TO THE UNIVERSITY AND COMMUNITY

NORTH DAKOTA STATE UNIVERSITY - COMMITTEE ASSIGNMENTS

2018 – Present	School of Pharmacy Academic Affairs and Student Progress Committee (Chair 2018 -)
2018 – Present	School of Pharmacy Leadership Council
2018 – Present	School of Pharmacy Executive Team
2017 – Present	Accreditation Council for Pharmaceutical Education Self-Study Chair
2016 – 2017	Pharmacy Continuing Education Committee
2012 – 2014	University Search Committee – Center for Instructional Excellence & Innovation
2012 – 2013	Search Committee, Chair - Assistant Professor of Practice – Instructional Designer
2012 - 2012	Search Committee – Pharmacy Practice, Community Pharmacy Practice
2010 – 2014	University Undergraduate Curriculum Review Committee
2010 - 2012	Accreditation Council for Pharmaceutical Education Self-Study Chair
2010 - 2011	Special University Senate Committee on Academic Dishonesty
2010 - Present	University Academic Standards Committee
2009 - Present	Interprofessional Education Committee (Co-Chair 2009 – 2013, Chair 2018 -)
2009 - 2011	Committee on the Status of Women Faculty
2009 – 2009	Search Committee - Associate Dean of Nursing

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2009 – 2016	Odney, Waldron, & Peltier Award Committee
2009 – 2009	Sophomore Year Experience Steering Committee
2008 – Present	Administrative Council, College of Health Professions
2008 – 2010	University Academic Affairs Committee (Chair, 2009 – 2010)
2008 – 2009	Search Committee, Chair - Pharmacy Practice Faculty, Concept Pharmacy
2008 – 2008	Search Committee, Chair - Pharmacy Practice Faculty, Ambulatory Care
2007 – Present	Academic Affairs Committee, College of Health Professions (Chair 2008–)
2007 – Present	Pharmacy Assessment Committee
2007 – 2008	Strategic Planning Core Committee, Pharmacy, Nursing & Allied Science
2007 – 2008	Pharmacy Practice Department Chair Evaluation Committee
2006 – 2006	Search Committee, Pharmaceutical Science Faculty
2003 – 2008	Graduate Faculty Committee, Associate member
2003 – 2004	Search Committee, Pharmacy Program Assistant Dean for Student Affairs
2002 – Present	Pharmacy Curriculum Committee (Chair, 2005 – 2014) 2004 Accreditation Self Study Committee
2001 – 2006	Pharm.D. Admissions Committee
2001 – 2004	Pharmacy Assessment Committee
2003 – 2003	University Academic Affairs Committee

NATIONAL PROFESSIONAL COMMITTEE APPOINTMENTS

2009 – 2010	Development Committee Public Health Special Interest Group American Association of Colleges of Pharmacy (AACP)
2009 – 2010	Faculty Affairs Committee American Association of Colleges of Pharmacy (AACP)

JOURNAL REVIEWER

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2009 – Present American Journal of Pharmaceutical Education
American Association of Colleges of Pharmacy

2014 – Present Currents in Pharmacy Teaching and Learning

SERVICE TO AFFILIATED CLINICAL PRACTICE SITES

2008 – Current Allied Sciences-Respiratory Care Curriculum Committee

2008 – Current Allied Sciences- Respiratory Care Consortium

2002 – 2008 Pharmacy, Therapeutics & Formulary Committee, Family HealthCare Center

2002 – 2005 Educational Task Force, Family HealthCare Center

2002 – 2004 Chronic Care Collaborative, Family HealthCare Center

1996 – 2002 Institutional Review Board, Dakota Heartland Health Systems (Co-Chair)

1994 – 2002 Infection Control, Dakota Heartland Health Systems

1994 – 2002 Pharmacy & Therapeutics Committee, Dakota Heartland Health Systems (Co-Chair)

1987 – 1993 Pharmacy & Therapeutics Committee, Heartland Medical Center (Co-Chair)

1987 – 1993 Infection Control, Heartland Medical Center

COMMUNITY SERVICE

2012 – Present Women's Care Center Board of Directors
Women's Care Center, Fargo, North Dakota

2008 – 2014 Family HealthCare Center Board of Directors (Vice President 2010 – 2014)
Family HealthCare Center, Fargo, North Dakota

PROFESSIONAL AWARDS

2008 – 2014 Who's Who in America (Marquis)

January 2008 National Career Profile
American Society of Health System Pharmacists

May 2006 Preceptor of the Year

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NDSU College of Pharmacy Class of 2006

May 2004 Preceptor of the Year
NDSU College of Pharmacy Class of 2004

December 2001 Best Practice in Health System Pharmacy Management Award
American Society of Health System Pharmacists.

January 2001 “Top Docs 2001”
Fargo Moorhead Today January 2001

April 1998 North Dakota Health System Pharmacist of the Year
Presented by the North Dakota Pharmaceutical Association

February 1998 International Who’s Who of Professionals

Daniel L. Friesner
Curriculum Vitae, October 2018

Work Address

College of Health Professions
Dept. 2650, P.O. Box 6050
North Dakota State University
Fargo, ND 58108-6050
Telephone: (701) 231-9509
Email: Daniel.Friesner@ndsu.edu

Education

Ph.D., Economics, Washington State University, May 2000.

Primary Areas of Specialization: Health Economics, Applied Microeconomics

Supporting Areas of Specialization: Monetary Economics, Applied Econometrics

B.A., Economics, Supporting Coursework: Chemistry, Gustavus Adolphus College, May 1996.

Administrative Appointments

Associate Dean for Student Affairs and Faculty Development, College of Health Professions
(formerly the College of Pharmacy, Nursing and Allied Sciences), North Dakota State
University, July 2011 - present.

Interim Associate Dean for Student Affairs, College of Pharmacy, Nursing and Allied Sciences,
North Dakota State University, March 2010 - July 2011.

Faculty Appointments

Professor, Department of Pharmacy Practice, North Dakota State University, July 2011 - present.

Associate Professor, Department of Pharmacy Practice, North Dakota State University, July
2008 - June 2011.

Graue Chair of Economics, Gonzaga University, January 2008 - June 2008.

Associate Professor, School of Business, Gonzaga University, September 2007 - June 2008.

Assistant Professor, School of Business, Gonzaga University, August 2003 - August 2007.

Assistant Professor, Department of Economics, Weber State University, July 2002 - June 2003.

Assistant Professor, Department of Economics & Finance, University of Southern Indiana,
June 2000 - June 2002.

Courtesy Appointment

Adjunct Faculty, School of Economic Sciences, Washington State University,
April 2006 - present.

Administrative Responsibilities and Accomplishments

Major Responsibilities for the College of Health Professions

- Responsible for all issues related to student affairs and professionalism at the level of the College, including enforcement of the College's Student Conduct Policy and managing student background checks.
- Responsible for empowering faculty advancement and increasing the rate of academic scholarship in the College.
- Responsible for diversity and recruiting efforts in the College.
- Active in fundraising and grant writing to support recruiting and diversity initiatives.
- Represent the College on University committees related to student affairs and retention, including the Orientation Committee, and the President's Council on Alcohol and Other Drugs.
- Chair the Dean's Liaison Council (DLC), which is the primary link between student organizations in the College and the Dean's Office.
- Actively participate on the Dean's Administrative Council.

Major Responsibilities for the Doctor of Pharmacy (Pharm.D.) Program

- Serve as Chair of the Admissions Committee for the Pharm.D. program.
- Provide career counseling for students who are not admitted into the Pharm.D. program.
- Responsible for new student orientation activities and programming for incoming students.
- Assign advisors and promote excellence in advising within the Pharm.D. program.
- Responsible for all ACPE-accreditation activities relating to student affairs.

Other Responsibilities

- Responsible for writing and enforcing policies to strengthen student affairs in the College.
- Administer budgets to support student affairs, diversity and recruiting initiatives.
- Maintain a full faculty workload including scholarship, teaching and service expectations.

Major Accomplishments

- Worked with the Director of Advancement to successfully obtain grants and donations from various corporate partners (including 3M, Target and Walgreens) to support student scholarships, student affairs and diversity initiatives.
- Successfully wrote several new policies to support student affairs in the College and/or the Pharm.D. program. Examples of these policies include a student file policy, a technical standards policy, a student complaint policy, a transfer policy, and a substance misuse policy.
- Collaborated with faculty and administrators across the University to develop and promote a Master of Public Health (M.P.H.) program.
- Successfully lobbied for funding to hire a full-time advisor for pre-professional pharmacy students and a full-time pre-professional advisor for at-risk pre-professional students.
- Successfully led a faculty initiative to revise the pre-professional pharmacy curriculum.
- Successfully led multiple initiatives to revise and improve the Pharm.D. admissions process, including multiple-mini interviews and early admissions.

Research

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“The Impact of Burnout on Self-efficacy, Outcome Expectations, Career Interest, and Nurse Turnover,” *Journal of Advanced Nursing*, 2018, forthcoming (with Ching-I Teng, Hao-Yuan Chang, Yea-Ing Lotus Shyu, May-Kuen Wong, and Tsung-Lan Chu).

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“Perceived Sustainability of Community Telepharmacy in North Dakota,” *Journal of the American Pharmacists Association*, 2017, Vol. 57, No. 3, pp. 362-368 (with David Scott, Gabby Anderson, Teri Undem, Kelli Sem and Charles Peterson).

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“Opioid Misuse among Adolescents: New Evidence from a Misclassification Analysis,” *Applied Health Economics and Health Policy*, 2015, Vol. 13, No. 2, pp. 181-192 (with Sean Murphy and Robert Rosenman).

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“On the Demand for Nurse Labor in Hospital Pharmacies,” *International Journal of Services, Economics and Management*, 2013, Vol. 5, No. 3, pp. 179-202 (with Robert Rosenman and Sean Murphy).

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“Glycosaminoglycan-Mediated Selective Changes in the Aggregation States, Zeta Potentials, and Intrinsic Stability of Liposomes,” *Langmuir*, 2012, Vol. 28, 16115-161125 (with Erin Nyren-Erickson, Manas Haldar, Jessica Totzauer, Riley Ceglowski, Dilipkumar Patel, D.K. Srivastava and Sanku Mallik).

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“Chapter 11: Simple and Multiple Regression Analysis,” in Principles of Research Design and Drug Literature Evaluation. Rajender Arapasu and John Bentley, Editors, Burlington, MA: Jones & Bartlett Publishers, 2015 (with John Bentley).

“Chapter 12: Logistic Regression and Survival Analysis,” in Principles of Research Design and Drug Literature Evaluation. Rajender Arapasu and John Bentley, Editors, Burlington, MA: Jones & Bartlett Publishers, 2015 (with John Bentley).

“TIF Legislation in Indiana: Agile and Adaptive,” in Tax Increment Financing and Economic Development: Uses, Structure and Impact, 2nd edition. Craig Johnson and Ken Kriz, Editors, Albany, NY: SUNY Press, 2018 (with Perry Burnett, Mohammed Khayum and Sudesh Mujumdar).

Other Publications

“Letter to the Editor: Medical Expenses and Bankruptcy,” *Health Affairs*, 2013, Vol. 32, No. 10, p. 1856 (with Donald Hackney and Matthew McPherson).

Reprint of “Nibbling, Sniping and the Role of Information in Second-Price, Hard-Close Auctions: Empirical Evidence from eBay,” *International Journal of E-Business Research*, 2008, Vol. 4, No. 1, pp. 69-81 (with Carl S. Bozman and Matthew McPherson). Reprinted in Electronic Business: Concepts, Methodologies, Tools and Applications (Chapter 5.9). In Lee, Editor.

“Rankings Provide Insight to Businesses,” *Evansville Business Journal*, January 4, 2005 (with Sudesh Mujumdar and Peter Cashel-Cordo).

“Livability – Do Indiana MSA’s Measure Up?” *University of Southern Indiana School of Business Reports*, 2003, Vol. 22, pp. 8-9 (with Peter Cashel-Cordo and Sudesh Mujumdar).

Selected Grants, Monetary Awards and Fellowships (Sole Recipient, PI or Co-PI Only)

Presidential Education Grant, 2009, North Dakota State University. Amount: \$1,000. Role: Sole Recipient. Status: Completed.

“Estimating the Economic-Epidemiological Impact of Community Telepharmacies in North Dakota and Northwestern Minnesota,” North Dakota Board of Pharmacy, 2009 (with Samantha Buck). Amount: \$9,167. Role: PI. Status: Completed.

Presidential Education Grant, 2008, North Dakota State University. Amount: \$1,000. Role: Sole Recipient. Status: Completed.

Jepson Fellowship for Faculty Research, 2007, School of Business, Gonzaga University. Amount: \$3,000. Role: Sole Recipient. Status: Completed.

Loeken Award for Academic Excellence, 2005-2006, School of Business, Gonzaga University. Amount: \$15,000. Role: Sole Recipient. Status: Completed.

Jepson Fellowship for Faculty Research, 2004, School of Business, Gonzaga University. Amount: \$3,000. Role: Sole Recipient. Status: Completed.

R. Malcolm Koch Fellowship for Faculty Research, 2001, School of Business, University of Southern Indiana. Amount: \$2,000. Role: Sole Recipient. Status: Completed.

Selected Grants, Monetary Awards and Fellowships (Consultant or Collaborator Roles)

“Center for Diagnostic and Therapeutic Strategies in Pancreatic Cancer” National Institutes of Health/National Institute of General Medical Sciences. 2016-2019 (Sanku Mallik, PI), Amount: \$60,000 (over 3 years). Role: Director of the Biostatistics Core Center. Status: In Progress.

“Patient-Centered Care: The Impact of the Community Pharmacist-Provided Medication Management Services on Patient Health Outcomes in Medical Homes or Accountable Care Organizations – The North Dakota MediQHome Project” National Association of Chain Drug Stores Foundation, Revised Grant Negotiated in 2014 (with David Scott, Thomas Christensen, David Lessard, Patty Kumbera and Justin Heiser), Revised Grant Amount: \$60,000 (over 1 year). Role: Collaborator. Status: Completed.

“Telepharmacy Grant 4D1B TM 00051-03” Office for the Advancement of Telehealth, Health Resources and Services Administration, Department of Health and Human Services, 2008 (with Charles Peterson, Ann Rathke, David Scott and Christian Albano), Amount: \$805,300. Role: Collaborator/Assessment Specialist. Status: Completed.

“Delivering Medication Therapy Management Services through Telepharmacy to Serve Remote Rural Communities,” United States Department of Agriculture Small Business Innovative Research Program, Phase 1, 2009 (with Ryan Jilek, Michelle Rixen, Howard Anderson and Mark Schroeder), Amount: \$79,849. Role: Consultant/Assessment Specialist. Status: Completed.

Sub-contract for Assessment Services, “Outcomes of Medication Therapy Management Services in Assisted Living Facilities in Rural Minnesota,” 2009 (with David Scott). Sub-contract Amount: \$7,000. Role: Collaborator/Assessment Specialist. Status: Completed.

Selected Grant Applications

“COBRE Center for Translational Pharmacological Research on Obesity and Related Comorbidities (CTPROC).” 2019-2022 (Jagdish Singh and Kristine Steffen, Co-PIs), Amount: TBD. Role: Director of Evaluation and Assessment (Submitted to the National Institutes of Health in 2018).

“Targeting Pancreatic Cancer with Hypoxia-Responsive Polymer Nanoparticles” 2018 (with Sanku Mallik, Mohiuddim Quadir and Shushanta), Amount: \$1,625,625 (over 5 years). Role: Collaborator/Assessment Specialist (Submitted to the National Institutes of Health in 2018).

“Triggered Release of Histone Deacetylase Inhibitors from Lipid Nanoparticles,” 2012 (with Sanku Mallik, D.K. Srivastava and Bin Guo), Amount: \$1,625,625 (over 5 years). Role: Collaborator/Assessment Specialist. Originally submitted to the National Institutes of Health (Not Accepted).

“Enzyme-Triggered Contents Release from Lipid Nanoparticles,” 2011 (with Sanku Mallik and D.K. Srivastava), Amount: \$1,625,625 (over 5 years). Role: Collaborator/Assessment Specialist. Originally submitted to the National Institutes of Health (Not Accepted).

“Matrix Metalloproteinase Mediated Release of Liposomal Contents,” 2011 (with Sanku Mallik and D.K. Srivastava), Amount: \$1,625,625 (over 5 years). Role: Collaborator/Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

Subcontract on the R21 submission “Antibody-Nanofiber Conjugates for FRET Imaging of RAGE Level in Melanoma,” 2011 (with Benedict Law and Estelle LeClerc), Subcontract Amount: \$5,000 (1 year). Role: Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

Subcontract on the R15 submission “Investigation of 2-dimensional Nanofibers as Tumor Delivery Cargos,” 2011 (with Benedict Law), Subcontract Amount: \$5,000 (1 year). Role: Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

Subcontract on the R02 submission “The Development of FRET-Based Nanoprobe for Detection of uPA Activity,” 2011 (with Benedict Law), Subcontract Amount: \$5,000 (1 year). Role: Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

“Development of New Detection Methods for ADAMs Employing Liposomes,” 2011 (with Sanku Mallik, D.K. Srivastava and Benedict Law), Amount: \$1,625,625 (over 5 years). Role: Collaborator/Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

“Nanoparticle-Mediated Amplified Detection of Active Matrix Metalloproteinases,” 2010 (with Sanku Mallik, Sudipta Seal and Michael Leuenberger), Amount: \$1,613,620 (over 5 years). Role: Collaborator/Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

“The North Dakota Telepharmacy Project Expanding Essential Pharmacy Services to Critical Access Hospitals,” 2010 (with Charles Peterson, Ann Rathke and David Scott), Amount: \$128,729. Role: Collaborator/Assessment Specialist. Status: Originally submitted to the Otto-Bremer Foundation (Not Accepted).

“New Strategies for Amplified Detection of Matrix Metalloproteinases,” 2010 (with Sanku Mallik and Estelle LeClerc), Amount: \$1,606,980 (over 5 years). Role: Collaborator/Assessment Specialist. Status: Originally submitted to the National Institutes of Health (Not Accepted).

“Breathe North Dakota: Bringing Specialty Asthma Care to Rural North Dakota,” 2010 (with Charles Peterson, Ann Rathke, David Scott and Wendy Brown), Amount: \$750,000 (over 3 years). Role: Collaborator/Assessment Specialist. Status: Originally submitted to HRSA (Not Accepted).

“Use of Telepharmacy Counseling to Improve Access to Diabetes Education in Rural North Dakota,” Letter of Intent submitted to the Bringing Research in Diabetes to Global Environments and Systems (BRIDGES) Program, 2009 (with Jayme Steig). Amount: \$400,000. Role: Co-PI. Initial letter of intent was accepted in May 2009; the second stage of the proposal was rejected in January 2010 (Not Accepted).

Awards

Best Paper Award in the Pharmaceutical Healthcare Issues Track for the Manuscript “The Business Case for Hospital Telepharmacy in North Dakota and Northwestern Minnesota,” 2014 *MBAA International/Business and Health Administration Association Annual Meetings* (with Shelley Doherty-Johnsen, Dave Scott, Ann Rathke and Christian Albano).

Awarded status as a Fellow of the Academy of Business Economics in 2012.

2011 Outstanding Reviewer Award for Service to the *International Journal of Pharmaceutical and Healthcare Marketing*. Awarded by the Emerald Literary Network.

Best Paper Award for the Manuscript “The Impact of Prior Information on Patients’ Perceptions of Treatment Effectiveness in Idiopathic Intracranial Hypertension,” 2010 MBAA International/Academy of Business Economics Annual Conference (with Sean Murphy and Robert Rosenman).

Best Paper Award for the Manuscript “A Game Theoretic Model for Marital Infidelity and Divorce in the Presence of Sexually Transmitted Diseases: Implications for Social Welfare and Public Policy,” 2004 Midwest Business Economic Association Annual Meetings (with Peter Cashel-Cordo).

Faculty Excellence in Research Award, 2002, School of Business, University of Southern Indiana.

Selected Conference Proceedings and Abstracts

“Do Tenure and Promotion Reduce Faculty Research Productivity? Evidence from a Pharmacy Practice Department,” 2018 *MBAA International/Business and Health Administration Annual Conference and Proceedings* (with David Scott and Michael Kelsch).

“The Contribution of Laboratory and Imaging Cost Centers to the Financial Viability of Rural Hospitals in Washington State,” 2018 *MBAA International/Business and Health Administration Annual Conference and Proceedings* (with Kelly Haugen and Matthew McPherson).

“Pharmacist Conducted Patient Education and Discharge Follow-up in a Rural Hospital,” *2017 American Society of Health-System Pharmacists Annual Conference and Proceedings* (with Becky Horne Dunn, Mark Dewey and Allison Goedker).

“Scheduling the Pharmacy College Admissions Test (PCAT) to Maximize Success,” *2017 MBAA International/Business and Health Administration Association Conference and Proceedings*, (with Kelly Haugen and Amanda Groom).

“Should Pre-Professional Pharmacy Students Select Online Courses?” *2017 MBAA International/Business and Health Administration Association Conference and Proceedings*, (with Kelly Haugen).

“Reconsidering Predictors of Academic Success in Health Professions Programs,” *2017 MBAA International/Business and Health Administration Association Conference and Proceedings*, (with Dana Davis and Amanda Groom).

“Does a Study Abroad Experience Enhance Pharmacy Students’ Cultural Competence?” *2017 MBAA International/Business and Health Administration Association Conference and Proceedings*, (with David Scott, Kelly Haugen and Cynthia Naughton).

“Developing a ‘Healthy’ Economics Research Agenda,” *2016 MBAA International/Business and Health Administration Conference and Proceedings*.

“Sustainable Community Economic Development: Asset Mapping and the Social Fabric Matrix as a Policy Planning Framework,” *2016 Western Social Science Association/Association for Institutional Thought Conference and Proceedings* (with Dan Underwood).

“What Constitutes High Quality Academic Advising? Empirical Evidence from a Pre-Professional Pharmacy Program,” *2015 MBAA International/Business and Health Administration Annual Conference Proceedings*, (with Dana Davis and Kelly Haugen).

“Identifying At-Risk Pre-Professional Pharmacy Students,” *2015 MBAA International/Business and Health Administration Annual Conference Proceedings*, (with Dana Davis and Kelly Haugen).

“Correlating Cigarette Price and Consumption Using the Centers for Disease Control and Prevention (CDC) State Tobacco Activities Tracking and Evaluation (STATE) System,” *2015 MBAA International/Business and Health Administration Annual Conference Proceedings*, (with Christian Albano).

“Qualitative Analysis of Residency Directors’ and Pharmacy Faculty Members’ Interview Responses Regarding Residency Candidate Selection Criteria,” *2014 American Association of Colleges of Pharmacy Annual Meetings* (with Elizabeth Blake, Emily Hajjar, Elmer Gentry, Jacob Gettig and Jonathan Kline). Abstract printed in the *American Journal of Pharmaceutical Education*, 2014, Vol. 78, No. 5, p.74.

“The Business Case for Hospital Telepharmacy in North Dakota and Northwestern Minnesota,” *2014 MBAA International/Business and Health Administration Association Annual Conference Proceedings* (with Shelley Doherty-Johnsen, Dave Scott, Ann Rathke and Christian Albano).

“Sustainability when People Matter: Of Owls and Trees and Community Economic Development,” *2013 Western Social Science Association/Association for Institutional Thought Conference Proceedings*, (with Dan Underwood and Jason Cross).

“Improving Rural Asthma Control One Breath at a Time,” *2013 Asthma and Allergy Educators Conference Proceedings* (with Wendy Brown, Marissa Erlandson, Tara Schmitz and David Scott). Abstract printed in the *Journal of Asthma & Allergy Educators*, 2013, Vol. 4, No. 5, p. 240-241.

“Ordination Analyses: Towards Instrumental Liberation of the Institutional Empirical Toolbox,” *2011 Western Social Science Association/Association for Institutional Thought Conference Proceedings*, (with Dan Underwood and Hal Snarr).

“Estimating the Economic-Epidemiological Impact of North Dakota and Minnesota Community Telepharmacies,” *2011 American Pharmacists Association Annual Conference* (with Samantha Buck). Abstract printed in the *Journal of the American Pharmacists Association*, 2011, Vol. 51, No. 2, p. 279.

“What Characteristics of Nursing Homes are More Likely to Adopt a Pharmacist’s Medication Review Recommendations?” *2011 American Pharmacists Association Annual Conference* (with David Scott, Mark Dewey, Todd Johnson and Matthew Kessler). Abstract printed in the *Journal of the American Pharmacists Association*, 2011, Vol. 51, No. 2, p. 229.

“Brand Equity in an Online Environment,” *2011 Western Decision Sciences Association Annual Conference Proceedings*, (with Matthew McPherson, Carl S. Bozman and Ching-I Teng).

“Comparing Error Rates across Community Telepharmacies and Traditional (Non-Telepharmacy) Community Pharmacies,” *2010 American Association of Colleges of Pharmacy Annual Conference* (with David Scott and Charles Peterson). Abstract printed in the *American Journal of Pharmaceutical Education*, 2010, Vol. 74, No. 5 (online; no page number available).

“Does Operating a Community Telepharmacy Affect Dispensing Errors within the Practice? Evidence from North Dakota,” *2010 American Association of Colleges of Pharmacy Annual Conference* (with David Scott and Charles Peterson). Abstract printed in the *American Journal of Pharmaceutical Education*, 2010, Vol. 74, No. 5 (online; no page number available).

“If They Had It to Do Over Again, would Faculty in Professional Schools Still Choose an Academic Career?,” *2010 MBAA International/Academy of Business Economics Annual Conference Proceedings* (with Tim Schibik).

“Students’ Motivations for Attending Pharmacy School,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with David Sperl and Donald Miller). Abstract

printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

“Pharmacy Management Business Plan: Assessment of Students Writing and Verbal Skills,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with David Scott and Wanda Roden). Abstract printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

“Initiating a Masters in Public Health (M.P.H.) Degree in a College of Pharmacy,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with David Scott, Donald Miller, Cynthia Naughton, Christian Albano and Charles Peterson). Abstract printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

“A Model of Public Health as a Team Endeavor,” *2009 American Association of Colleges of Pharmacy Annual Conference* (with David Scott, Donald Miller, Cynthia Naughton, Christian Albano and Charles Peterson). Abstract printed in the *American Journal of Pharmaceutical Education*, 2009, Vol. 73, No. 4 (online; no page number available).

“What Factors Induce Pharmacists to Report Working Longer Hours?” *American Pharmacists Association Annual Conference* (with David Scott and Robert Rosenman). Abstract printed in the *Journal of the American Pharmacists Association*, 2009, Vol. 49, No. 2, p. 291.

“Comparison of Dispensing Error Rates between Telepharmacy Sites vs. Comparison Group” *2009 American Pharmacists Association Annual Conference* (with David Scott, Charles Peterson, Ann Rathke and Howard Anderson). Abstract printed in the *Journal of the American Pharmacists Association*, 2009, Vol. 49, No. 2, p. 302.

“On Contracts and Governance: How Entrepreneurs use Strategy to Attract Funds from Venture Capitalists” *2008 Academy of Business Economics Conference Proceedings* (with Sudesh Mujumdar and Katherine Sauer).

“Do Tuition Hikes Lower Student Performance?” *2006 Academy of Business Economics Conference Proceedings* (with Sudesh Mujumdar, Tim Schibik, Mohammed Khayum and Charles Harrington).

“Assessing Dynamic Progress or Regress among Multiple OT Performance Measures,” *2006 Western Decision Science Institute Conference Proceedings* (with Scott Bozman, Donna Neufelder and Janet Raisor).

“Do Hospitals Use Service Intensity to Finance Inefficiency?” *2005 Midwest Business Economics Association Conference Proceedings* (with Chris Stevens and Robert Rosenman).

“Money Well Spent? An Examination of Government Expenditures for HIV/AIDS Prevention and Treatment in South Africa,” *2005 Midwest Business Economics Association Conference Proceedings* (with Peter Cashel-Cordo and Sudesh Mujumdar).

“Identifying Latent Outcome Measures in Inpatient Physical Therapy,” *2004 Midwest Business Economics Association Conference Proceedings* (with Donna Neufelder, Janet Raisor and Mohammed Khayum).

“Determinants of Business Sentiment,” *2004 Midwest Business Economics Association Conference Proceedings* (with Mohammed Khayum).

“Tuition Hikes and Student Performance,” *2004 Midwest Business Economics Association Conference Proceedings* (with Sudesh Mujumdar, Tim Schibik and Mohammed Khayum).

“Using Quality Control Methods to Measure Productivity Improvement: A Case Study of a Midwestern Rehabilitation Provider,” *2003 Midwest Business Economics Association Conference Proceedings* (with Donna Neufelder, Janet Raisor and Mohammed Khayum).

“Livability Changes in Indiana Communities: Something to Flaunt or Fear?” *2003 Midwest Business Economics Association Conference Proceedings* (with Sudesh Mujumdar and Peter Cashel-Cordo).

“Fundamentals of Economics Courses: Fun Course or Positive Learning Experience?” *2003 Midwest Business Economics Association Conference Proceedings* (with Tim Schibik and Mohammed Khayum).

“Determinants of Perceived Pain in Physical Therapy Patients: A Case Study of a Midwestern Hospital,” *2002 Midwest Business Economics Association Conference Proceedings* (with Donna Neufelder and Janet Raisor).

“The Effectiveness of Using Economics to Aid Reading Skills Development: Some Empirical Evidence,” *2002 Midwest Business Economics Association Conference Proceedings* (with Steve Cox and Mohammed Khayum).

Selected Working Papers and Works in Progress

“What Students do not Learn in Microeconomics: The Effects of Student Major and Background,” 2006 (with John Beck and Matthew McPherson).

“How Much Predictive Content do Business Sentiment Surveys Contain? A Simple Bayesian Analysis,” 2008 (with Mohammed Khayum and Tim Schibik).

“Welfare Reform’s Impact on the Employment Population Ratio of Low-Income Women,” 2010 (with Hal Snarr and Dan Axelsen).

“Synthesis of a Pyranine Lipid and its Differential Interactions with a Matrix Metalloproteinase,” 2010 (with Manas Haldar, Erin Nyren-Erickson, Bratati Ganguly, D.K. Srivastava and Sanku Mallik).

“The Class of 2003: An Examination of Chapter 13s through the Looking Glass of the Unsecured Creditor,” 2011 (with Matthew McPherson, Don Hackney and Candace Correia).

“Do Clinical Faculty Perceive the Treatment of Part-time Faculty Differently than Other Types of Faculty?” 2011 (with Tim Schibik and Curtis Price).

“Working with Rural Community Partners to Pilot Telemedicine as a Way to Increase Access to Asthma Care,” 2014 (with Wendy Brown, Tara Schmitz, Marissa Erlandson and David Scott).

“Fluorescent Polymers for Subtyping Cancer Cells using Conditioned Media,” 2014 (with Michael Scott, Manas Haldar, Rinku Dutta, Erin Nyren-Erickson, Michael Meier, Hannah Walbruch, Brandi Wersinger, Buddhadev Layek, Avinash Ambre, Bin Guo, Jagdish Singh, Kalpana Katti and Sanku Mallik).

“Does Experience Lead to More Informative Survey Responses? Evidence from a Large, Amateur Sporting Event,” 2016, (with Carl S. Bozman and Matthew McPherson).

“International Tax Competition: An Empirical Examination of MNC Peer Selection,” 2016, (with Matthew McPherson, Tim Schibik and Andrew Brajcich).

“New Posterior Distributions for the Incidence of Inefficiency in DEA Scores,” 2017, (with Mehmet Guray Unsal and Robert Rosenman).

“Modelling Shared Efficiency between Diagnostic and Non-Diagnostic Revenue-Producing Hospital Cost Centers,” 2018 (with Matthew McPherson).

“On the Rationale for Repeated Consumer Bankruptcy Filings,” 2018 (with Matthew McPherson and Donald Hackney).

Selected Professional Reports and Presentations

“Analysis of Tax Increment Financing in Indiana,” June 2016 (with Perry Burnett, Sudesh Mujumdar and Mohammed Khayum)

“Greater Seattle Area Survey of Current Business Conditions – Quarter 1, 2012,” May 2012 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 4, 2011,” February 2012 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 3, 2011,” November 2011 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 2, 2011,” August 2011 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 1, 2011,” May 2011 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 4, 2010,” February 2011 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 3, 2010,” November 2010 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 2, 2010,” August 2010 (with Andrew Cassey).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 1, 2010,” May 2010 (with Justin Taylor, Andrew Cassey and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 4, 2009,” February 2010 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 3, 2009,” November 2009 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 2, 2009,” August 2009 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 1, 2009,” May 2009 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 4, 2008,” February 2009 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 3, 2008,” November 2008 (with Justin Taylor and Ron Mittelhammer).

“Greater Seattle Area Survey of Current Business Conditions – Quarter 2, 2008,” August 2008 (with Justin Taylor and Ron Mittelhammer).

“An Analysis of GOAT Scores for Mild Traumatic Brain Injury,” Prepared for St. Mary’s Medical Center and Rehabilitation Institute, Evansville, IN, November 2007.

“2007 Business Outlook Survey Report for the Greater Coeur d’Alene, ID Economy - Quarter 2,” (with Derrick Stricker).

“2007 Business Outlook Survey Report for the Greater Coeur d’Alene, ID Economy – Quarter 1,” (with Lance Chase).

“Forecasting Metals Prices with Limited Data,” Prepared for the Hecla Mining Company, Coeur d’Alene, ID, August 2007.

“St. Mary’s Rehabilitation Institute and Trauma Program: Partnering for Excellence in Outcomes,” Poster Presentation/Report, St. Mary’s Medical Center Quality Fair, Evansville, IN, November 2004 (with Donna Neufelder, Janet Raisor and Kim Whitmore).

“Using Peer Review to Improve Documentation in Physical Medicine,” Poster Presentation/Report, St. Mary’s Medical Center Quality Fair, Evansville, IN, October 2003 (with Donna Neufelder, Janet Raisor and Kim Whitmore).

“Executive Report: Medicare Mortality Analysis,”
Prepared for the Medical Management Department, St. Mary’s Hospital, Evansville, IN, 2001.

“Executive Report: Medicare Severity of Illness Analysis,”
Prepared for the Medical Management Department, St. Mary’s Hospital, Evansville, IN, 2001.

“Executive Report: Medicare Average Length of Stay and Medicare Reimbursement Analysis,”
Prepared for the Medical Management Department, St. Mary’s Hospital, Evansville, IN, 2001.

Teaching

General Teaching Duties and Interests

I teach (and have taught) courses in economics, strategy and business statistics to undergraduate, M.B.A., Pharm.D. and D.N.P. students. I also have a strong interest in using game theory as a pedagogical device, and try to incorporate it into my courses as much as possible.

Economics Courses Taught or Currently Teaching

Principles of Microeconomics
Principles of Macroeconomics
Principles of Money, Banking and Financial Institutions
Health Economics (Undergraduate, MBA)
International Economics
Managerial Economics (Undergraduate, MBA)
The Economics of Gambling (MBA)

Pharmacy Practice, Public Health and Nursing Courses Taught or Currently Teaching

Health Care Delivery Systems, Policy and Financing (Guest lecturer)
Health Economic Outcomes Assessment (100 percent responsibility for course content)
Health Outcomes Research (Guest Lecturer)
Nursing Health Promotion (Guest lecturer)
Pharmaceutical Care V (Guest lecturer)
Pharmacy Management (50 percent responsibility for course content)
Skills for Academic Success for Pre-Professional Pharmacy Students (100 percent responsibility for course content)
Critical Thinking and Academic Success (50 percent responsibility for course content)

Quantitative Courses Taught or Currently Teaching

Introductory Business Statistics
Intermediate Business Statistics
Introductory Econometrics
Advanced Undergraduate Econometrics
Business Forecasting (Undergraduate, MBA)
Mathematical Economics
Business Calculus
Game Theory (Undergraduate, MBA)
Efficiency Measurement in Business (MBA)
Research Design and Analysis (MBA)

Graduate Committee Service (Current and Past, Degree Granting University)

Economics Ph.D. Committees: 1 (Completed, Washington State University)
Pharmaceutical Sciences Ph.D. Committees: 1 (Completed, North Dakota State University)
Adult Education Ph.D. Committees: 4 (2 Completed, 2 In Progress, North Dakota State University)
Doctor of Nursing Practice Committees: 28 (27 Completed, 1 In Progress, North Dakota State University)
Master of Science in Nursing Committees: 5 (Completed, North Dakota State University)

Service Activities

University Service Activities

Appointed Member, Welcome Week Committee, North Dakota State University, 2016 – present.

Appointed Member, Provost's Ad Hoc Tuition Waiver Committee, North Dakota State University, 2016.

Appointed Member, Faculty Awards and Recognition Committee, North Dakota State University, 2015 – present.

Appointed Member (Commission on the Status of Women Faculty Representative), Faculty Affairs Sub-Committee, Faculty Senate, North Dakota State University, 2017 – present.

Elected Member, Faculty Affairs Sub-Committee, Faculty Senate, North Dakota State University, 2011 – 2017.

Appointed Member, Committee on the Status of Women Faculty, North Dakota State University, 2011 – present.

Chair, Committee on the Status of Women Faculty, North Dakota State University, 2015 – present.

Appointed Member, Policy 352 (NDSU Promotion and Tenure Policy) Working Group, North Dakota State University, 2014 - present.

Appointed Member, Honors Program Advisory Council, North Dakota State University, 2015 – present.

Appointed Member, Orientation Committee, North Dakota State University, 2010 – 2016.

Appointed Member, President's Council on Alcohol and Other Drugs, North Dakota State University, 2010 – present.

Elected Member, Program Review Committee, North Dakota State University, 2009 – present.

Appointed Member, Equity and Diversity Liaisons Committee, North Dakota State University, 2011 – 2015.

Appointed Member, Global Council, North Dakota State University, 2012 – 2014.

Appointed Member, Second Year Experience Committee, North Dakota State University, 2010 – 2012.

Alternate Member, Program Review Committee, North Dakota State University, 2008 – 2009.

Masters in Public Health Program Development Committee, North Dakota State University, 2008 – 2009.

Elected Member, Academic Council, Gonzaga University, 2007 – 2008.

Chair, Program Review Subcommittee, Academic Council, Gonzaga University, 2007 – 2008.

Appointed Member, Academic Council, Policy and Planning Subcommittee, Gonzaga University, 2006 - 2007.

Faculty Evaluation Working Group, Gonzaga University, 2004 - 2005.

Undergraduate Research, Innovation, Scholarship and Creativity Committee, University of Southern Indiana, 2001 - 2002.

School and Department Service Activities

Chair, Faculty Development Committee, College of Health Professions, North Dakota State University, 2014 – present.

Co-Chair, Inclusivity/Diversity Committee, College of Health Professions, North Dakota State University, 2014 – present.

Chair, Pharmacy Admissions Committee, College of Health Professions, North Dakota State University, 2010 – present.

Chair, Pharmacy Student Affairs Committee, College of Health Professions, North Dakota State University, 2010 – present.

Chair, Dean's Liaison Committee, College of Health Professions, North Dakota State University, 2010 – present.

Appointed Member, Scholarship Committee, College of Health Professions, North Dakota State University, 2010 – present.

Elected Member, Pharmacy Assessment Committee, College of Health Professions, North Dakota State University, 2008 – present.

Affiliate Staff Member, North Dakota Institute for Pharmaceutical Care, College of Health Professions, North Dakota State University, 2008 – present.

Appointed Member, Dean's Evaluation Committee, College of Health Professions, North Dakota State University, 2012.

Appointed Member, Awards Committee, College of Health Professions, North Dakota State University, 2008 – 2010.

Graduate Committee, School of Business, Gonzaga University, 2004 - 2008.

Online Course Instruction Committee, School of Business, Gonzaga University, 2007 - 2008.

Planning and Outcomes Assessment Committee, School of Business, Gonzaga University, 2005 – 2006.

Undergraduate Committee, School of Business, Gonzaga University, 2003 – 2004.

Advisor, Omicron Delta Epsilon, University of Southern Indiana Chapter, 2000 - 2002.

Research Improvement Committee, School of Business, University of Southern Indiana, 2000 - 2002.

Coordinator, Research Seminar Series, Department of Economics and Finance, University of Southern Indiana, 2000 - 2002.

External Administrative Service Activities

Executive Editor, *Global Business and Finance Review*, 2017 – present.

Associate Editor, *Global Business and Finance Review*, 2015 – 2017.

Editorial Board Member, *Asia Pacific Journal of Innovation and Entrepreneurship*, 2015 – present.

Editorial Advisory Board Member, *International Journal of Pharmaceutical and Healthcare Marketing*, 2012 – present.

Executive Board Member, Academy of Business Economics, 2005 – present.

Editorial Advisory Board Member, *Journal of the American Pharmacists Association*, 2010 – 2016.

Editorial Board Member, *Journal of Economic Issues*, 2012 – 2015.

Editorial Board Member, *Global Business and Finance Review*, 2009 – 2014.

Editorial Board Member, *Journal of Economic Development and Business Policy*, 2006 – 2009. Publication suspended 2009.

Catholic Health Initiatives Telepharmacy Site Build Team, 2008 – 2009.

Member, Cancer Research and Prevention Center, Washington State University, 2006 – 2007.

President, 2005 - 2006, Academy of Business Economics (formerly the Midwest Business Economics Association).

Board Member, City of Spokane's Council on Economic Policy and Forecasting, 2005 – 2008.

Program Chair, 2004 - 2005, Midwest Business Economics Association.

Executive Board Member, 2003 – 2004, Midwest Business Economics Association.

Reviewed Articles for the Following Journals and Publishers

American Journal of Economics and Sociology
American Journal of Medical Research
American Journal of Pharmaceutical Education
Annals of Operations Research
Asia Pacific Journal of Innovation and Entrepreneurship
Applied Clinical Research, Clinical Trials, and Regulatory Affairs
Applied Economics
BMC Health Services Research
BMC International Health and Human Rights
Challenges
Currents in Pharmacy Teaching and Learning
Dove Medical Press
Economic Analysis and Policy
Economic Inquiry
Economics Bulletin
European Journal of Hospital Pharmacy
European Journal of Operational Research
Global Business and Finance Review
Health Care Management Science
Health Economics
International Journal of Behavioural and Healthcare Research
International Journal of Health Care Quality Assurance
International Journal of Pharmaceutical and Healthcare Marketing
Jones & Bartlett Publishers
Journal for Economic Educators
Journal of the American Pharmacists Association
Journal of Applied Statistics
Journal of Asthma
Journal of Business Ethics
Journal of Economic Development and Business Policy
Journal of Economic Issues
Journal of Productivity Analysis
Journal of Telemedicine and Telecare
Journal of the Operational Research Society
Journal of Third World Studies
McGraw-Hill-Irwin
Michael Smith Foundation for Health Services Research
Multinational Business Review

Pharmacy Practice
Production Planning and Control
Public Finance and Management
Southern Economic Journal

External Promotion and/or Tenure Evaluation for Faculty at the Following Universities

Gonzaga University, 2008, 2011, 2013, 2014, 2018
Governors State University, 2016
Idaho State University, 2009
Indiana University-Purdue University Fort Wayne, 2010, 2012, 2015, 2017, 2018
North Carolina A&T University, 2009
University of Missouri-Kansas City, 2016
University of South Florida – Manatee, 2018

Conference Activities

Invited Panelist for the Session, “Publishing – Practical Help for Publishing Success,” 2014 *MBAA International/Academy of Business Economics Annual Meetings* (other panelists: David Dilts, Nodir Adilov and Brian Kench).
Invited Panelist for the Session, “Towards an AFIT MOOC? A Roundtable on Online Learning, Education and Institutionalism,” 2013 *Association for Institutional Thought Annual Meetings* (other panelists: Dan Underwood and Geoff Schneider).
Invited Panelist for the Session, “The Challenge of New Media Technologies in Higher Education,” 2011 *MBAA International/Academy of Business Economics Annual Conference* (other panelists: Tim Schibik, David Dilts, Jason Davis and John Kessler).
Invited Panelist for the Session, “How to Get Published,” 2010 *MBAA International/Academy of Business Economics Annual Conference* (other panelists: Tim Schibik, David Dilts and Lawrence Haber).
Session Discussant, 2010 Association for Institutional Thought Meetings.
Session Discussant, 2002 - 2006 Academy of Business Economics Meetings.
Session Chair, 2002 - 2003, 2005 Academy of Business Economics Meetings.
Session Organizer, 2001 Eastern Economic Association Meetings.

Professional Memberships

Academy of Business Economics
American Association of Colleges of Pharmacy
American Economic Association
Association for Evolutionary Economics
Association for Institutional Thought
Business and Health Administration Association

Professional Certifications and Qualifications

“Academic Leadership Fellows Program,” American Association of Colleges of Pharmacy. This is a year-long program designed to develop leadership and administrative skills for new academic administrators. The program was completed in July 2013.

“32-Hour Civil and Employment Mediation Seminar,” University of North Dakota Conflict Resolution Center. Completing the course allows me to work as a qualified civil and workplace mediator. The course was completed in October 2012.

“Mental Health First Aid USA,” National Council for Community Behavioral Healthcare. The course was completed in September 2011, renewed in July 2014, renewed again in June 2017, and is valid through September 2023.

“Collaborative Institutional Training Initiative (CITI) Web-Based Institutional Review Board Training Course,” The basic course modules were completed in August of 2012, with additional modules completed in December 2012, May 2015 and January 2017. The training included responsible conduct of research modules for the biomedical and social/behavioral sciences, as well as good clinical practice and conflict of interest modules.

References

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Email: tschbik@usi.edu

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Matthew Q. McPherson, Ph.D.
Professor of Finance
School of Business Administration
Gonzaga University
Spokane, WA 99258
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Fax: (509) 313-5811
Email: mcperson@jepson.gonzaga.edu

Curriculum Vitae

Jagdish Singh, Ph.D.

EXECUTIVE SUMMARY:

I am Professor and Chair of the Department of Pharmaceutical Sciences at NDSU School of Pharmacy, and a Fellow of American Association of Pharmaceutical Scientists (AAPS) and Fellow, Association of Biotechnology and Pharmacy. My research efforts focus on the mechanistic studies for developing and testing novel delivery technologies to deliver biotechnologically derived molecules (e.g., peptide, protein, and gene), using smart polymers, nanomicelles and nanoparticles for the prevention and treatment of neurodegenerative diseases, other brain disorders, and diabetes. National Institutes of Health, US Department of Defense, PhRMA Foundation, and AFPE have funded my research. I have published over 170 peer-reviewed papers and 350 abstracts. I received twice NDSU College of Pharmacy Researcher of the Year awards and was recognized with Fred Waldron Research Award in recognition of my outstanding contribution in research and creative activities at NDSU.

I teach Novel Dosage and Drug Delivery Systems and Advanced Biopharmaceutics to Pharm.D. and graduate students at NDSU and received thrice the North Dakota State University College of Pharmacy Teacher of the Year awards. I was also recognized twice as a preferred professor by MortarBoard for my continued service and dedication to the students of NDSU through excellence in academic teaching.

I have supervised over 36 graduate students and post-doctoral fellows, and over three dozen undergraduates and professional (Pharm.D.) research students. I have also served/ am serving on advisory committee of 25 graduate students in Pharmaceutical Sciences, Chemistry, Polymers and Coatings, and computer at NDSU. I was instrumental in developing and implementing the combined Pharm.D./Ph.D. program and interdisciplinary Ph.D. program in Cellular and Molecular Biology at NDSU.

I am a member and actively participate in several national and international professional and scientific societies. I am also a member of United States Pharmacopoeia (1995-current) and serves as reviewer of grants and manuscripts for numerous pharmaceutical and biomedical journals and federal agencies. I have received numerous service awards.

The Department of Pharmaceutical Sciences at NDSU School of Pharmacy, College of Health Professions has witnessed significant growth in terms of research grants, publications, interdisciplinary graduate education, interdisciplinary research during my over sixteen years of leadership as a Department Chair. It was ranked 9th in year 2009 in nation among the US schools and colleges of pharmacy based on number of PhD faculty receiving NIH funding. Under my leadership, National Research Council ranked the NDSU graduate program in pharmaceutical sciences 39th on the research based ranking and was above the University of Iowa and University of Kentucky. Our program shared rank # 1 with Duke University in student support. I was instrumental in establishing a Center of Excellence for Economic Development (Center for Biopharmaceutical Research and Production) and received a total of \$6.7 million from the State of North Dakota and private sector partners for the Center. The department participated in the ~\$22 million over 10 years NIH funded Center of Biomedical Research Excellence, and also participated in a \$16.3 million NIH Infrastructure Biomedical Research Enhancement (INBRE) grant. We received recently \$11 million 5 years CoBRE P20 grant in the department to develop a Center in Pancreatic Cancer Research. More recently, we have submitted ~\$11 million 5 years multidisciplinary COBRE grant to create the Center for Translational Pharmacological Research on Obesity and Related Comorbidities.

DETAIL CURRICULUM VITAE:

Jagdish Singh, Ph.D.

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College of Health Professions
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Sudro Hall Room 136
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Fargo, ND 58108-6050, USA
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(701) 261-3180 (cell phone)
Fax: (701) 231-8333
E-mail: singhjagdish02@gmail.com
Jagdish.Singh@ndsu.edu

Education:

Bachelor of Pharmacy, 1977; Master of Pharmacy, 1979; Ph.D. (Pharmaceutics, 1983) from Indian Institute of Technology, BHU, Varanasi.

Post-doctoral: University of Otago School of Pharmacy, Dunedin (1985-1988)
University of California, San Francisco (1992-1994).

Professional Experience:

2002- current Chair, Department of Pharmaceutical Sciences, NDSU, Fargo, ND
2001- current Professor, Pharmaceutical Sciences, NDSU, Fargo, ND
1999-2001 Associate Professor, Department of Pharmaceutical Sciences, NDSU, Fargo, ND
1994-1998 Assistant Professor, Department of Pharmaceutical Sciences, NDSU, Fargo, ND
1990-1992 Associate Professor (Reader), Department of Pharmaceutics, BHU Institute of Technology, Varanasi
1979-1989 Assistant/Sr. Assistant Professor (Lecturer/ Sr. Lecturer), Department of Pharmaceutics, BHU Institute of Technology, Varanasi

Awards:

2009: Fellow, Association of Biotechnology and Pharmacy
2004: Fellow, AAPS (American Association of Pharmaceutical Scientists)
2001-02: Waldron Research Award in recognition of outstanding research achievement at NDSU
2001-02 Teacher of the Year Award, College of Pharmacy, NDSU
2000-01 Researcher of the Year Award, College of Pharmacy, NDSU
1999-00 Teacher of the Year Award, College of Pharmacy, NDSU
1998-99 Researcher of the Year Award, College of Pharmacy, NDSU
1997-98 Teacher of the Year Award, College of Pharmacy, North Dakota State University

1997-98 Preferred Professor by International Honor Society MortarBoard
1998-99 Preferred Professor by International Honor Society MortarBoard
1992-94 Visiting Postdoctoral Fellowship, University of California, San Francisco, CA
1985-88 University Grants Committee Postdoctoral Fellowship, New Zealand
1977-79 UGC Fellowship, Government of India
1973-77 UGC Scholarship, Government of India

Professional Membership and Honors:

Member NIHZRG1 EMNR-B(50)R Panel July 2018
NIH SCORE Study Section [**ZGM1 RCB-4 (SC)**], October 2017
Member NIH Biomaterials, Delivery Systems and Nanotechnology IMST (13) Panel, June 2009, October 2009, March 2010, October 2010., October 2011, February 2012, October 2012
Editor, International Union of Advanced Materials
Chair, Implantables and Injectables session at 35th Annual Meeting & Exposition of the Controlled Release Society, July 12-16, New York, 2008.
Member, History's Trustee Committee, State Historical Society of North Dakota Foundation
Member, United States Pharmacopeia, 1995-current
Member, Editorial Board of Pharmaceutical Development and Technology
Member, Editorial Board, Advanced Materials *Letters*
Member, Editorial Board of Recent Patents on Endocrine, Metabolic & Immune Drug Discovery
Member, Editorial Board of Recent Patents in Drug Delivery and Formulation
Member, Golden Key
Member, Rho Chi (National Pharmacy Honor Society)
Member, American Association for the Advancement of Science
Member, American Association of Colleges of Pharmacy
Member, American Association of Pharmaceutical Scientists
Member, Controlled Release Society, Inc.
Member, Association of Pharmaceutical Teachers of India
Member, Otago Pharmacological Association, Inc; 1986-88.
Member, Otago Med. Sch. Res. Council, 1986-88.

Accomplishment as a Department Chair:

My administrative responsibilities include managing thirteen faculty members, 30-35 doctorate level graduate students, 8 post-doctoral fellows/visiting scientists, two office staffs, pharmaceutical sciences courses of professional students (400 Pharm.D. students) and the annual budget of the department (~\$10 Million). The mission of the department is to educate and train future pharmacists and biomedical scientists and to advance biomedical research that improves human health.

- There is substantial growth of the department in the area of research infrastructure, research funding, professional and graduate education during my leadership as department chair. There is a 10-fold increase in extramural funding and peer-reviewed publications.
- Strengthened the research infrastructure of the department: developed common-used equipment and facilities and added several state of the art instruments such as confocal microscope, EPR, LC-MS-MS, Spectromax M-5, Nano Zeta Sizer, ITC, DSC, In vivo imaging system; animal facilities, including nude mice facility; cold room; and dark room. More recently, upgraded animal facility to

BSL 2 animal facility and generated funds from the State of North Dakota and private donors to accomplish the construction and equipment needed to renovate this facility.

- Developed new programs such as combined Pharm.D./ Ph.D. and participates in the Cellular and Molecular Biology Interdisciplinary Ph.D. program.
- Strengthened the graduate program. In the most recent ranking by the National Research Council for the graduate program in the United States of America released, our graduate program in pharmaceutical sciences was compared with other pharmaceutical sciences as well as Pharmacology, Toxicology and Environmental Health programs of the US medical schools. Our program ranked 39th on the research based ranking and was above the University of Iowa and University of Kentucky. Our program ranked # 1 in student support.
- Improved the NIH research ranking of the program. Our research program ranked 13th in year 2008 and 9th in year 2009 in the U.S. for the percent of Ph.D. faculty with NIH funding.
- Developed vigorous pharmaceutical sciences lecture series inviting outside speakers of national and international renown, including Nobel laureates.
- Recruited and mentored nine new faculty members for the department and received faculty start-up funds for them from internal and external sources.
- Enhanced collaboration of our faculty within NDSU and out of NDSU. The department faculty became the part of NIH CoBRE with Chemistry (\$25 M over 10 years) and NIH INBRE (\$16.3 M over 5 years) grants, and another recent \$10 M over 5 years NIH CoBRE grant on pancreatic cancer research.
- Helped create a North Dakota Economic Development Center of Excellence (ED-COE) in Biopharmaceutical Research and Production (CBRP, The Center) \$6.7 million funded (\$2 million from the State of North Dakota and 4.7 million from North Dakota Biopharmaceutical companies) to perform economically significant and market-driven research and development of biopharmaceuticals.
- Created a good working environment in the department and instilled a climate of mutual cooperation in getting faculty to work together in striving to fulfill the overall mission and goals of the department in teaching, research and service.
- Developed Department PT&E guidelines, Department Strategic Plan, and helped develop strategic plan for the College of Health Professions.
- Increased the diversity among department faculty and graduate students.

Research Interests:

In recent years' great progress has been made in pharmacotherapy, and many important new drugs have been introduced to clinical medicine. Even greater progress has been achieved in the biopharmaceutical technology, which has made the precise control of drug delivery to the body by different routes, using a variety of sophisticated delivery systems. However, the delivery of proteins and peptides is somewhat of a "black box." The development of a whole new generation of potent therapeutic agents based on biotechnology and genetic engineering has brought the limitations of conventional drug delivery into sharp focus and is forcing a fundamental reappraisal of the basic mechanisms of drug absorption and transport. Many of these exciting new compounds are unstable polar macromolecules with very short biological half-lives whose clinical application is prevented by problems with delivery. If methods can be devised to overcome the natural barriers to their absorption, transport and uptake, these agents promise to revolutionize drug therapy and bring enormous benefits to medicine and mankind. Therefore, my research efforts are directed towards the mechanistic studies for developing and testing **novel**

delivery technologies to deliver biotechnologically derived molecules (e.g., peptide, protein, and Gene), using smart polymers, nanomicelles and nanoparticles for the prevention and treatment of neurodegenerative diseases, other brain disorders and diabetes.

Teaching Interests:

I teach Physical Pharmacy, Pharmaceutical Dosage Forms and Delivery Systems to Pharm.D. students, and Advanced Biopharmaceutics to Ph.D. students at NDSU.

PAST/CURRENT/PENDING SUPPORT (at NDSU):

Major Research Grants:

1. Brain Neurotropic Growth Factor Delivery to Prevent and Treat Alzheimer's Disease

P.I.: Jagdish Singh; MPI: Takahisa Kanekiyo

Agency: NIH/NIA: 1R01AG 051574-01A1

Project period: 08/01/2016 to 06/30/2021

Amount: \$1,895,625.00

Status: **Active**

2. Modification of insulin molecule for controlled delivery at basal level from triblock copolymers

Agency: NIH/NIGMS 1R15 GM114701-01;

PI: Jagdish Singh

Project period: 05/01/2015 to 4/30/2019

Total amount: \$435,000

Status: **Active**

3. Treatment of Neurogenic Hypertension by Delivery of ACE2 across the BBB

Agency: NIH/NHLBI 1R15HL143519-01

PI: Chengwen Sun; Co-Investigator: Jagdish Singh

Project period: 07/15/2018 to 6/30/2021

Total amount: \$435,000

Status: **Active**

4. Enhanced ApoE2 Expression into Brain for Prevention of Alzheimer's Disease

P.I.: Jagdish Singh; MPI: Takahisa Kanekiyo

Agency: NIH/NIA 1 R01AG 061804-01

Amount: \$1,895,625.00

Status: Pending

5. Center for Translational Pharmacological Research on Obesity and Related Comorbidities.

MPI: Kristine Steffen and Jagdish Singh

Agency: NIH/ 1P20 GM130449-01

Amount: \$10,682,658 (approx. \$10.7 M)

Status: Pending

6. "Gene Therapy"

Agency: Fraternal Order of Eagle
PI: Jagdish Singh
Amount: 50,000
Status: **Active**
Duration: 6/15/2007 – 12/31/2016

7. “Controlled Release of Polypeptide Hormone Calcitonin”
Principal Investigator: J. Singh
Agency: NIH 1 RO3 AG041155-01A1
Amount: \$ 144,500
Status: **Completed**
Duration: 08/01/2012 – 07/31/2015

8. “Prevention of diabetes by pDNA encoded with IL-10”
Principal Investigator: J. Singh
Agency: NIH 1 RO3 HD061469-01
Amount: \$ 143,000
Status: **completed**
Duration: 9/1/2010 – 8/31/2012

9. “MRI-R2: Acquisition of an automatic isothermal titration microcalorimeter,”
Principal Investigator (Mallick), Investigator (Singh)
Agency: NSF CBET-0959422
Amount: \$ 351,764
Status: **completed**

10. Center for Biopharmaceutical Research and Production”
Principal investigator(s): Jagdish Singh and Charles Peterson
Agency: State of North Dakota Center of Excellence
Amount: \$ 6,742,000 (2 million from the State of North Dakota and \$4.742 million from biopharmaceutical companies of North Dakota)
Status: Completed; Year: 2009-2012.

11. “Controlled Delivery of Insulin”
Principal Investigator: J. Singh
Agency: NIH 1 RO3 HD056053-01
Amount: \$ 142,500
Status: completed; Year: 7/1/07-6/30/10

12. “Health and Environment”
Agency: NIH/NCRR (P20 RR016471)
PI: John Shabb,
Status: completed
Total amount: 16.3 million, Period: 8/4/2004 – 8/3/2009
Sub-project “Determining aquatic bioindicators for Atrazine”
Mentor of the sub-project: Jagdish Singh, Investigator: Andre DeLorme of VCSU

13. 'Field-induced pores formation during iontophoresis'

Principal Investigator: J. Singh

Agency: NIH (RO3 HD41372-01)

Amount: \$ 141,000

Status: completed; Year: 4/1/03-3/31/05

14. "Novel Controlled Delivery Systems for Contraceptives"

Principal Investigator: J. Singh

Agency: NIH (RO3 HD046483-01)

Amount: \$ 141,000

Status: completed; Year: 7/1/05-6/30/07

15. "Pig as a model for risk assessment for humans from percutaneous absorption of chemicals"

Principal Investigator: J Singh

Agency: DSWA/DoD; Grant # DSWA01- 97- 1- 0011

Amount: \$ 282,725

Status: completed; Year: 9/97-06/00.

16. "Percutaneous absorption, skin biophysics and dermatotoxicity from JP-8"

Principal Investigator: J. Singh

Agency: Air Force; Grant # F49620- 99- 1- 0223

Amount: \$ 339,608

Status: completed; Year: 5/1/00-4/30/03

17. Human Prostate Cancer Metastasis

PI: Sehgal/Singh

Agency: DoD grant No. DAMD17-00-1-0038 Modification P00004

Amount: \$313,256;

Status: completed; Year: 5/15/2000- 5/14/2004

18. 'New Faculty Start-up Fund'

PI: J Singh

Agency: NSF/EPSCoR

Amount: \$1,820, 000 (Year 2003: \$130,000; Year 2004:\$90,000; Year 2005:\$250,000, Year 2006: \$175,000; Year 2008: \$250,000; Year 2009: \$125,000; Year 2011: \$200,000; \$200,000 year 2012; 2015: \$400,000)

19. "Controlled Delivery of proteins using biodegradable microspheres"

Principal Investigator: J. Singh

Agency: ND EPSCoR;

Amount: \$ 26,240

Status: completed; Year: 2002-04

20. Iontophoretic transdermal delivery of peptides-Leuprolide acetate and insulin

Principal Investigator: J. Singh

Agency: ND EPSCoR;
 Amount: \$ 26,240
 Status: completed; Year: 2001-03

21. Miscellaneous grants (over \$150,000) from Pharmaceutical Research and Manufacturing of America (PhRMA) Foundation, American Federation of Pharmaceutical Education (AFPE), Fraternal Order of Eagles grant and other sources on various drug delivery systems research.

Graduate Research Supervision: The following graduate students worked/are working in my laboratory under my supervision for M.S. and Ph.D. degrees:

Name	Degree	Status
Sanjay Arora	Ph.D.	Continuing
Bruna Rodrigues	Ph.D.	Continuing
Sanjay Arora	Ph.D.	Continuing
Divya Sharma	Ph.D.	Continuing
Lindsay Lipp	Ph.D.	Continuing
Sushant Lakkadwala	Ph.D.	Continuing
Gitanjali Sharma	Ph.D.	Completed 2015
Buddhadev Layek	Ph.D.	Completed, 2014
Mayura Oak	Ph.D.	Completed, 2013
Rhishikesh Mandke	Ph.D.	Completed, 2013
Kacie Hughes	Ph.D.	Completed, 2011
Yu Tang	Ph.D.	Completed, 2008
Chandrasekhar Manoharan	PH.D.	Completed, 2008
Ashwin Basarkar	Ph.D.	Completed, 2008
Khalid AL-TAHAMI	Ph.D.	Completed, 2007
Medi Babu	Ph.D.	Completed, 2005
Sibao Chen	Ph.D.	Completed, 2005
Christian Albano	Ph.D.	Completed, 2005
Feirong Kang	Ph.D.	Completed, 2003
Sumeet Rastogi	Ph.D.	Completed, 2003
Somnath Singh	Ph.D.	Completed, 2003
Kuljit Bhatia	Ph.D.	Completed, 1997
S. Ganga	Ph.D.	Completed, 1993
Sanjay Singh	Ph.D.	Completed, 1991
*S. Karunakar	Ph.D.	Completed, 1994
* S.M. Sudhan	Ph.D.	Completed, 1994
Nikhil Shitut	M.S.	Completed 2003
Matthew J. Schaefer	M.S.	Completed, 1999
Mingda Bi	M.S.	Completed, 1999
Kaidi Zhao	M.S.	Completed, 1999
Shen Gao	M.S.	Completed, 1997
Romi Barat	M.S.	Completed, 1992
Brahmanand Singh	M.S.	Completed, 1992
K.P. Tripathi	M.S.	Completed, 1990

T.R. Sakya	M.S.	Completed, 1990
S. Satyanarayana	M.S.	Completed, 1990
A.S. Das	M.S.	Completed, 1985
O. N. Singh	M.S.	Completed, 1984

*Worked partly with me.

Research Associates/Post-doctoral Fellows/ Research Professor:

Amrita Banerjee Ph./D., Assistant Professor, 2017-current	
Kanwardeep Arora, M.D.	2012-13
Ashwin Basarakar, Ph.D.	2009
Sanjay Singh, Ph.D.	1990-1992
Som Nath Singh	1999-2003

I have served/am serving as committee member to the following graduate students:

Name	Degree	Status	Major
Gobburu Jogarao	Ph.D.	Completed 1996	Pharmaceutical Sciences
Sangeeta Rajee	M.S.	Completed 1996	Pharmaceutical Sciences
Jolin Jegier	Ph.D.	Completed 1996	Chemistry
Heung Kim	Ph.D.	Completed 1997	Polymers & Coatings
Qiang Yang	M.S.	Completed 1998	Pharmacy
Guoliang Chen	Ph.D.	Completed 2002	Chemistry
Zoha AL-Bdri	Ph.D.	Completed, 2004	Chemistry
Viera Lukakova	Ph.D.	Completed 2002	Pharmacy
Tao Zhang	M.S.	Completed 2002	Pharmacy
Xin Hu	Ph.D.	Completed 2003	Pharmacy
Roman Tandlich	Ph.D.	Completed 2003	Pharmacy
Andrew Shaffer	MS	Completed 2004	Polymers & Coatings
Akanksha Gupta	Ph.D.	Completed, 2004	Pharmacy
Binita Chandra	M.S.	Completed, 2005	Chemistry
Nihar Sarkar	M.S.	Completed, 2005	Chemistry
Sachin Brahmabhatt	Ph.D.	Completed, 2005	Pharmacy
Hana Hammad	Ph.D.	Completed, 2005	Pharmacy
Srinivas Ghatta	Ph.D.	Completed, 2006	Pharmacy
Deepti Nimmagudda	M.S.	Completed, 2006	Pharmacy
Zhen Shan	M.S.	Completed, 2008	Pharmacy
Mike Scott	M.S.	Completed, 2008	Pharmacy
Namrata Bhatnagar	Ph.D.	Completed, 2010	Pharmacy
Digamber Rane	Ph.D.	Completed, 2010	Chemistry
Jayati Banerjee	Ph.D.	Completed 2010	Pharmacy
Ruchi Mallik	Ph.D.	Completed, 2012	Pharmacy
Preeti Purwaha	Ph.D.	Completed, 2012	Pharmacy
Rinku Dutta	Ph.D.	Completed, 2012	Pharmacy
Rahul Nahire	Ph.D.	Completed, 2014	Pharmacy
Nikhil Sinde	M.S.	Completed 2013	Industrial Engineering
Saumya Singh	M.S.	Completed, 2013	Computer Engineering

Neha Singh	Ph.D.	Completed, 2014	Cellular and Molecular Biology
Rupali Shevkar	M.S.	Completed 2015	Computer Engineering

Undergraduate Student Advising:

Research: The following professional (**Pharm.D.**) and undergraduate students working/completed research in my laboratory on drug delivery systems:

Name	Fellowship	year
Karlee Jorgenson	Undergraduate Res	2016-
Emilie Nelson	Undergraduate Res	2016-
Tess Natterstad	Undergraduate Res	2015
Abigail Boateng	McNair Scholar	2015
Mishell Q. Verdugo	McNair Scholar	2015
Nhatu Phan	Experiential Res	2015
Alyssa Kelsch	Experiential res	2014
Mai Hoang	Research	2013
Linh Hoang	Research	2013
Shiva Raoof	Experiential res	2013
Skip Heisler	Experiential res	2013
Alyssa Kelsch	Vaccinology res	2013
Molly Slaby	Vaccinology res	2013
Brent Kinkhammer	Experiential res	2012
Andrew Diechert	Experiential res.	2012
Anaas Mergoum	Experiential res.	2011
Adis Keric	Experiential res.	2011
Adel Mergoum	Experiential Res.	2011
Mandi Clock	Experiential res.	2010
Nazih Mergoum	Experiential res.	20190
Akanksha Sharma	Biotech major	2008-09
Kuhu Sahu	Biotech major	2008-09
Brendan Hacker	McNair scholar	2005-06
Amanda Meyer	AURA	2004
Chelsea Gruetman	Summer Research	2004
Greg Gilnewski	Summer Research	2004
Jocelyn Suchor	AURA	2003
Jayne Fjeld	Science Bound	2003
Deanna Boucher	Science Bound	2002
Roger Yan	AURA/PhRMA Fdn.	2001-02
Raymond Clary	McNair scholar	2000-02
Oliver Franzl	DoD	2000-01
Lisa M. Vandrovec	PhRMA Foundation	1999-00
Jason Hoang	DoD project	1999-00
Angela Levang	PhRMA Foundation	1998-99
Lisa M. Vandrovec	Science Bound	1997-98
Angela K. Levang	AFPE Fellow	1997-98

Jesse Breidenbach	McNair scholar	1997- 98
Katie Heide	McNair scholar	1997
Eric Christenson		1997

I have provided Experiential Research training to 24 fourth year Pharm.D. students at the College of pharmacy at NDSU. In addition, I also mentored the followings North Dakota Governor’s School students:

Amber Archer 1996
 Dylan Karley 1998
 Kinsey Nelson 1998
 Natalie Eraas 1999
 Ashley Gorby 2000
 Sarah Hamer, 2001
 Seena Patel, 2002
 Chelsea Berg, 2003
 Kayla Pfau, 2004
 Anna Kinneberg, 2005
 Alyssa Emerson, 2006
 Ashley Kaspari, 2007
 Autumn Wallace, 2008
 Avinash Rajender, 2009
 Lucas Schnaidt, 2010
 Krishna Patel, 2011
 William Moffet, 2012
 Lillian Anderson, 2013
 Kyle Wegner, 2014
 Mikayla, Helstad, 2015
 Taya, Patel, 2015
 Anika Tella, 2015
 Raef Rahman, 2016
 Mira May, 2016
 Sariyah Hossain, 2017
 Nyah Johnson, 2017
 Sarah Vadnais, 2017
 Emily Wenniung, 2018
 Emmalee Shaff, 2018

SERVICE:

Service to the University:

University Committee responsibilities:

Member, Search Committee for Vice President for Research position, 1999
 Academic Affairs Committee, 1998-00
 Institutional Animal Care and Use Committee, 1995-2003

Member, Search Committee of Graduate Dean, NDSU, 2000
Member, Graduate Council, NDSU, 2000-02
Member, Presidential Fellowship Award committee, 2000-05
Teaching and Professional Service Committee, 1995-98, 2000-05
Member (Graduate School appointee), Program Review Committee for Vet. & Microbiology Dept., 2000-01
Research and Consulting Committee, 2002-current
Endowed Professorship Committee, 2003, 2007
Member, Search Committee of Graduate Dean, NDSU, 2003
Member, Honorary Degree Committee, NDSU, 2004, 2005, 2006
Member, Focus Group Tech Park Incubator Building, 2003-current

College of Pharmacy committee responsibilities:

Accreditation Self-Study Executive committee, 2000, 2006, 2012
Chair, Search Committee for Associate Dean of Students Affairs and Faculty Development, 2011
Grade Appeal Committee, 1994-1995
Admission Committee, 1996-00
Priorities, Planning, and Resource Committee, 1996-99
Concept Pharmacy Task Force Committee, 1996-00
Chair, Faculty Sub-Committee of Accreditation Self-Study Committee, 1998-00, 2005-06
Member, Curriculum Committee, 2001-2003
Academic Affairs Committee, 2002-2005
Member, Dean Administrative Council, 2002-current
College curriculum Committee, 2005-current
College Assessment Committee, 2006-current

Department of Pharmaceutical Sciences committee responsibilities:

Member, Search Committee for Pharmacology Faculty Positions, 1995
Chair, Search Committee for Pharmacokinetics/Pharmaceutics faculty position, 1996
Member, Search Committee for Pharmaceutical Sciences Faculty Position, 1997
Member, Search Committee for Pharmaceutical Sciences Faculty Position, current
Chair, Search Committee for Pharmaceutics Faculty position, 2000
Chair, Search Committee for Director, CBRP, 2010
Chair, Department of Pharmaceutical Sciences, 2002-current

Service to profession:

Member, United States Pharmacopeia, 1995-current
Member, American Association of Pharmaceutical Scientists, 1993-current
Member, New York Academy of Sciences, 1999-2002
Member, American Association of Colleges of Pharmacy, 1994-current
Member, Controlled Release Society, Inc., 1994-current
Member, American Association for Advancement of Science, 2002-current

Journals/Grants Reviewer:

Member NIH Biomaterials, Delivery Systems and Nanotechnology IMST (13) Panel, June 2009, October 2009, March 2010, October 2010., October 2011, February 2012, October 2012

Adhoc grant reviewer, Florida Department of Health

Adhoc grant reviewer, Kentucky Science and Engineering Foundation

Adhoc grant reviewer, American Chemical Society-Petroleum Research Fund

Adhoc grant reviewer, USDA ARS Competitive Grant Program

Pharmaceutical Research

Journal of Pharmaceutical Sciences

International Journal of Pharmaceutics

Journal of Controlled Release

Biophysica Biochemica Acta

Pharmaceutical and Biomedical Analysis

Pharmaceutical Development and Technology

PharmSciTech

AAPS Pharm Sci

Journal of Pharmacy and Pharmacology

External Examiner:

-External examiner for Ph.D. thesis of the Department of Medicine, University of Queensland, Australia, 1999, 2001

-External examiner for Ph.D. thesis of Pharmacy, National University of Singapore, 2002, 2006

-External examiner for Ph.D. thesis of Banaras Hindu University, India, 2001, 2003, 2008

-External Examiner for Ph.D. thesis, Biomedical Engineering, Indian Institute of Technology, New Delhi, 2004, 2007

-External Examiner for Ph.D. thesis, Pharmacy, University of Manitoba, Canada, 2012

Publications (A Total List of 170):

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Sanjay Arora and Jagdish Singh. Gene Delivery through GLUT-1 and Penetratin Targeted Nanoparticles to Brain: In Vitro Characterization for Particles Size, Charge, Cell Uptake and Transfection Efficiency. Presented at AAPS Annual Meeting and Exposition, November 4-8, 2018, Washington D.C.

Divya Sharma and Jagdish Singh. Dual Functionalized Chitosan Nanomicelles Mediated Gene Delivery for Targeting Pro-Inflammatory Macrophages for the Treatment of Insulin Resistance. Presented at AAPS Annual Meeting and Exposition, November 4-8, 2018, Washington D.C.

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Sanjay Arora, Jagdish Singh. Targeted Drug Delivery to Brain via GLUT-1 Receptors using 4-aminophenyl α -D-Mannopyranoside Modified Liposomes. Presented at AAPS-NDSU Pharmaceutical Research Symposium, September 12, 2017, Fargo, ND.

Sushant Lakkadwala, Jagdish Singh. Dual-Functionalized Liposomes for Co-delivery of Anti-Cancer Chemotherapeutics to Brain. Presented at AAPS-NDSU Pharmaceutical Research Symposium, September 12, 2017, Fargo, ND.

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Lindsey Lipp, Jagdish Singh. Synthesis and characterization of diblock copolymers for controlled release nanoparticles to control the release of water soluble drug. Presented at Collegiate Convention for Interdisciplinary Advances in Biomedical Sciences, September 01, 2015, NDSU, Fargo, ND.

Mayura Oak and Jagdish Singh, Modification of Insulin Molecule for Controlled Delivery at Basal Level for Type 1 Diabetes. Invited Lecture at Indo-Global Pharma and Medical Expo & Summit 2015, Hyderabad, India, July 23-26, 2015.

Layek B, Singh J, Hexanoic Acid Grafted Mannosylated Chitosan for Targeted DNA Vaccine Delivery to Dendritic Cells. Presented at AAPS Annual Meeting and Exposition, November 2-6, 2014, San Diego, CA.

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Sharma G, Singh J, Polyarginine tethered receptor-targeted liposomes for gene delivery to brain: in-vitro and in-vivo evaluation, presented at AAPS Annual Meeting and Exposition, October 14-18, 2012, Chicago, IL.

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Sharma G, Singh J, Design of an in-vitro blood brain barrier model to evaluate the transport of dual-modified liposomes, presented at AAPS Annual Meeting and Exposition, October 14-18, 2012, Chicago, IL.

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Layek B, Singh J, Synthesis and characterization of phenylalanine grafted chitosan for gene delivery, presented at AAPS Annual Meeting and Exposition, October 14-18, 2012, Chicago, IL.

Layek B, Singh J, Effect of amino acid alkyl chain length on cellular uptake and transfection efficiency of hydrophobically modified chitosan, presented at AAPS Annual Meeting and Exposition, October 14-18, 2012, Chicago, IL.

Oak M, Singh J, Controlled delivery of basal insulin from chitosan-zinc-insulin complex incorporated thermosensitive copolymer: in vivo evaluation in diabetic rat, presented at AAPS Annual Meeting and Exposition, October 14-18, 2012, Chicago, IL.

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Hughes K, Lehman P, Singh J, Raney S, Franz T, In vitro correlation of skin barrier integrity tests with the structure and function of the stratum corneum barrier, presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Hughes K, Lehman P, Raney S, Singh J, Franz T, The novel development of a dual Octanol/Water skin barrier test, presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Mandke R, Singh J, In vivo delivery of plasmids encoding Interleukin-4 and Interlukin-10 using N-acyl derivatives of low-molecular weight chitosan for prevention of autoimmune diabetes, , presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Mandke R, Singh J, Effect of DNA addition on physicochemical properties of N-acyl modified soluble chitosan nanomicelles and in vitro transfection of pDNA encoding therapeutic proteins, , presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Oak M, Singh J, In vitro and in vivo biocompatibility of the thermosensitive delivery systems containing chitosan, presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Oak M, Singh J, Enhanced stability of insulin in thermosensitive copolymer based injectable delivery system using chitosan, presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Oak M, Singh J, Formulation factors controlling insulin release from thermosensitive polymeric delivery systems, presented at AAPS Annual Meeting at Exposition, October 23-27, 2011, Washington, DC.

Jagdish Singh, Cationic nanoparticles/nanomicelles for delivery of pDNA encoding IL-10 and IL-4 to prevent autoimmune diabetes. Invited lecture presented at Third International Conference on Drug Discovery & Therapy, February 7-10, 2011 in Dubai, U.A.E.

Mayura Oak, Jagdish Singh, Thermosensitive copolymer based injectable delivery system for insulin: Effect of chitosan on in vitro release and stability, Presented at AAPS National Biotechnology Conference, San Francisco, May 2011, Abstract No: T2020.

Buddhadev Layek, and Jagdish Singh, Evaluation of hydrophobically modified low molecular weight chitosan as a potential non viral vector for gene delivery, PGSRM, June 2011 at University of Wisconsin-Madison, Madison WI 53705

Gitanjali Sharma and Jagdish Singh, Synthesis and evaluation of liposomal vector for delivery of gene across bold brain barrier, PGSRM, June 2011 at University of Wisconsin-Madison, Madison WI 53705

Al-Tahamin, Khaled and Singh, Jagdish, Continuous basal level delivery of insulin in vitro and in vivo; presented at 37th Annual Meeting & Exposition of the Controlled Release Society, Oregon convention Center, Portland, Oregon, July 10-14, 2010.

Hughes K, Singh J, Lehman P, Raney S, Franz T, Evaluating Hydrophobic-Hydrophilic Penetration Pathways through Ex Vivo Human Skin. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Layek B, Singh J, Cationic Nanomicelles to Deliver DNA Vaccine. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Mandke R, Singh J, In vitro toxicity, atomic force microscopy and confocal microscopic studies of unsaturated fatty acyl derivatives of depolymerized chitosan in HEK 293 cells. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Mandke R, Singh J, Synthesis and physicochemical characterization of unsaturated fatty acyl derivatives of depolymerized chitosan for gene delivery. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Mandke R, Singh J, Protection ability and transfection efficiency of nanomicelles-pDNA polyplexes. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Oak M, Singh J, Thermosensitive copolymer based injectable delivery system for insulin: In vitro release and stability. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Oak M, Singh J, Stability of insulin in the thermosensitive polymeric delivery systems at storage and body temperatures. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Sharma G, Singh J, Formulation and characterization of stearically stabilized nano-liposomes. Presented at AAPS Annual Meeting and Exposition, Morial Convention Center, New Orleans, LA, November 14-18, 2010.

Yu Tang and Jagdish Singh, Controlled release of salmon calcitonin from thermosensitive polymeric system. Presented at 36th Annual Meeting & Exposition of the Controlled Release Society, July 12-16, Copenhagen, Denmark, 2009.

Jagdish Singh, pDNA encoding IL-10 nanomicelles/nanoparticles for prevention of autoimmune diabetes. Invited for presentation on International symposium on "Emerging Trends in Biomedical and Nanobiotechnology: Relevance to Human Health", Guntur, India, December 19-21, 2009.

Mandke R and Singh J, Synthesis and in vitro evaluation of fatty acyl chitosan derivatives for gene delivery. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Mandke R and Singh J, Nanomicelles loaded with pDNA encoding for GFP for delivery and expression in HEK293 cells. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Mandke R and Singh J, Characterization and buffering ability of cationic nanomicelles for non-viral gene delivery. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Manoharan C, Singh J, *In vivo* evaluation of biodegradable p(CPH:SA)microspheres for basal insulin delivery. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Oak M, Singh J, Effect of zinc and insulin concentration on the *in vitro* release and stability of insulin from *in situ* gel forming copolymer systems. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Tang Y, Singh J, *In vivo* absorption of Salmon Calcitonin from Thermosensitive Polymer Based Injectable Delivery Systems and their Biocompatibility. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Manoharan C, Singh J, Protective effect of zinc on insulin stability during PLGA microsphere preparation. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Oak M, Layek B, Singh J, Synthesis and characterization of triblock copolymers for the controlled delivery of insulin. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Oak M, Singh J, Effect of chitosan on the *in vitro* release of insulin from thermosensitive smart polymer based delivery system. Accepted at AAPS Annual Meeting and Exposition, Los Angeles Convention Center, Los Angeles, CA, November 8-12, 2009.

Basarkar A and Singh J, pDNA encoding IL-10 delivery using cationic nanoparticles for prevention of type 1 diabetes. Invited presentation at First international Conference on Nanostructured Materials and Nanocomposites , Kottayam, Kerala, India, April 6-8, 2009.

Basarkar A and Singh J, *In vitro* and *in vivo* characterization of poly (lactide-co-glycolide)-polymethacrylate nanoparticles for interleukin-10 gene delivery. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Basarkar A and Singh A, Interleukin-10 gene delivery using cationic nanoparticles for prevention of type 1 diabetes in mice. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Al-Tahami A and Singh J, Controlled release of insulin from thermosensitive polymeric delivery systems: *in vivo* evaluation. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Al-Tahami A and Singh J, *In vitro* and *in vivo* biocompatibility of PLA-PEG-PLA delivery systems. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Mandke J and Singh J, Synthesis and evaluation of cationic chitosan derivatives for gene delivery. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Manoharan C and Singh J, Effect of formulation factors on insulin loading, release, and physical aging of PLGA microspheres. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Manoharan C and Singh J, Encapsulation, stabilization, and release of insulin from P(CPH:SA) microspheres. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Manoharan C and Singh J, Enhanced stability of insulin in PLGA microspheres using zinc salts. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Tang Y and Singh J, Controlled release of salmon calcitonin from polymer based thermosensitive injectable implant. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Tang Y and Singh J, Stability of salmon calcitonin in thermosensitive gel formulation. Presented at AAPS Annual Meeting and Exposition, Georgia World Congress Center, Atlanta, GA, November 16-20, 2008.

Basarkar A and Singh J, Intramuscular gene delivery using cationic nanoparticles for prevention of type 1 diabetes. Presented at 35th Annual Meeting & Exposition of the Controlled Release Society, July 12-16, New York, 2008.

Manoharan C and Singh J, Preparation and characterization of insulin loaded polyanhydride microspheres, presented at 35th Annual Meeting & Exposition of the Controlled Release Society, July 12-16, New York, 2008.

Tang Y and Singh J, Thermosensitive injectable implants: A good candidate for long term controlled delivery of protein, presented at 35th Annual Meeting & Exposition of the Controlled Release Society, July 12-16, New York, 2008.

Singh J, Key note address on Novel delivery systems for protein, gene, and DNA vaccine at 3rd Workshop and Training on "Advance Techniques of Molecular biology, March 7-9, Varanasi, India, 2008.

Al-Tahami, K., Singh, J. Poly lactic acid based injectable delivery systems for controlled release of insulin. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Al-Tahami, K., Singh, J. Thermosensitive polymers for the controlled release of basal insulin. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Al-Tahami, K., Singh, J. Development of thermosensitive delivery systems for controlled release of proteins: synthesis, characterization, and in vitro release. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Basarkar, A., Singh, J. Poly (lactide-co-glycolide)-polymethacrylate nanoparticles for plasmid DNA delivery to cells. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Basarkar, A., Singh, J. In vitro evaluation of Poly (lactide-co-glycolide)-polymethacrylate nanoparticles for gene delivery. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Tang, Y., Singh, J. Triblock copolymer: structure modification, biocompatibility evaluation and in vitro release of a model protein. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Tang, Y., Singh, J. Controlled delivery of model proteins from triblock copolymer formulations: in vitro release and protein stability studies. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Manoharan, C., Singh, J. Insulin Stability in primary emulsion for PLGA microsphere preparation. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Manoharan, C., Singh, J. Preparation and characterization of insulin loaded polyanhydride microspheres. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Manoharan, C., Singh, J. Stability of insulin in biodegradable polyanhydride microspheres. Presented at AAPS Annual Meeting and Exposition, San Diego, CA, November, 11-15, 2007.

Khaled AL-Tahami and Jagdish Singh, Thermosensitive copolymers for controlled release of insulin: in vitro release and stability” accepted for presentation at the 34th Annual Meeting of the Controlled Release Society, Long Beach, California, July 7 – 11, 2007.

Ashwin Basarkar and Jagdish Singh, Poly (lactide-co-glycolide)-polymethacrylate nanoparticles for gene delivery, accepted for presentation at the 34th Annual Meeting of the Controlled Release Society, Long Beach, California, July 7 – 11, 2007.

A. Basarkar, J. Singh, Poly (lactide-co-glycolide)-polymethacrylate nanoparticles for gene delivery: In vitro evaluation, Presented at 39th Pharmaceutics Graduate Student Research Meeting (PGSRM), June 21-23, 2007, Kansas City, MO.

Y. Tang, J. Singh, An injectable implant system for protein controlled delivery: in vitro release, protein stability and system biocompatibility studies, Presented at 39th Pharmaceutics Graduate Student Research Meeting (PGSRM), June 21-23, 2007, Kansas City, MO.

C. Manoharan, J. Singh, Evaluation of polyanhydride microspheres for controlled delivery of insulin, Presented at 39th Pharmaceutics Graduate Student Research Meeting (PGSRM), June 21-23, 2007, Kansas City, MO.

K. Al-Tahami, J. Singh, Factors affecting the in vitro release and stability of insulin from temperature sensitive polymers, Presented at 39th Pharmaceutics Graduate Student Research Meeting (PGSRM), June 21-23, 2007, Kansas City, MO.

Medi, B., Singh, J. Effect of electroporation on electrical properties of skin and DNA delivery. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Chen, S., Singh, J. In vivo absorption and biocompatibility study of testosterone in castrated rabbits from in situ gel forming systems. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Singh, J., Chen, S. Controlled release of levonorgestrel from Smart polymer delivery systems: in vivo evaluation. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Al-Tahami, K., Singh, J. Insulin release from gel-forming phase sensitive polymers. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Al-Tahami, K., Singh, J. Thermosensitive copolymers for controlled release of a model proteins: synthesis, characterization, and *in vitro* release. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Basarkar, A., Singh, J. Cationic nanoparticles for gene delivery: formulation and in vitro evaluation. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Basarkar, A., Singh, J. Effect of surfactant concentration on physical characteristics and in vitro transfection efficiency of cationic nanoparticles. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Tang, Y., Singh, J. Controlled Delivery of a Model Protein from Thermosensitive Polymers mPEG-PLGA-mPEG. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Tang, Y., Singh, J. Controlled Injectable Delivery System for Aspirin: Characterization and in vitro release of aspirin from phase sensitive in situ forming gel. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Manoharan, C., Singh, J. Encapsulation, stabilization and release of insulin from PLGA microspheres. Presented at AAPS Annual Meeting and Exposition, San Antonio, TX, October 2006.

Basarkar, A., Singh, J. Effect of polymer ratio and dose on transfection efficiency and toxicity of cationic nanoparticles. Presented at the 38th Annual Pharmaceutics Graduate Student Research Meeting (PGSRM), Minneapolis, MN, June 2006.

Al-Tahami, K., Singh, J. Gel-forming phase sensitive polymers for the controlled release of insulin. Presented at the 38th Annual Pharmaceutics Graduate Student Research Meeting (PGSRM), Minneapolis, MN, June 2006.

Tang, Y., Singh, J. Formulation factors affecting in vitro aspirin release from phase sensitive gel forming systems. Presented at the 38th Annual Pharmaceutics Graduate Student Research Meeting (PGSRM), Minneapolis, MN, June 2006.

Manoharan, C., Singh, J. Insulin loaded PLGA microspheres: Effect of formulation factors on encapsulation and initial burst. Presented at the 38th Annual Pharmaceutics Graduate Student Research Meeting (PGSRM), Minneapolis, MN, June 2006.

Basarkar, A., Singh, J. Formulation and characterization of Poly(DL-lactide-co-glycolide) and Poly(DL-lactic acid) cationic microparticles for controlled delivery of plasmid DNA. Presented at AAPS National Biotechnology Conference, Boston, MA, June, 2006.

Basarkar, A., Singh, J. Formulation and characterization of cationic microparticles for gene delivery. Accepted for presentation at the 33rd Annual Meeting of the Controlled Release Society, Vienna, Austria, July 2006.

Al-Tahami, K., Singh, J. Effect of metal ions and polymer concentration on insulin release from in situ gel forming polymers. Accepted for presentation at the 33rd Annual Meeting of the Controlled Release Society, Vienna, Austria, July 2006.

B. Medi and J Singh, Electroporation mediated cutaneous DNA vaccine delivery in rabbits: effect of dose of DNA vaccine. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

B. Medi and J Singh, Electroporation, sonoporation and liposome mediated cutaneous DNA vaccine delivery. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

Khaled Al-Tahami and Jagdish Singh, Factors affecting insulin release from in situ gel forming polymers. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

Sibao Chen and Jagdish Singh, In vitro release and in vivo absorption of growth hormone from thermosensitive triblock copolymer systems. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

Khaled Al-Tahami and Jagdish Singh, Lysozyme release from phase sensitive smart polymers: Conformational stability, biological activity, and biocompatibility. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

Somnath Singh, Dean Webster and Jagdish Singh, Suppression of testosterone level in vivo in rabbits by smart polymer-based controlled release formulations of leuprolide acetate. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

Ashwin Basarkar and Jagdish Singh, Transfection efficiency and cytotoxicity of cationic microparticles containing plasmid DNA. AAPS Journal, 7(52), Presented at AAPS 2005, Nashville, TN. November 6-10, 2005.

B. Medi and J Singh, Electroporation is Superior to Liposome and Sonoporation for Cutaneous DNA Vaccine Delivery. To be presented at 32nd Annual Meeting and Exposition of the Controlled Release Society, Miami Beach, Florida, USA, June 18-22, 2005.

S. Chen and J Singh, Controlled Release of Growth Hormone from Thermosensitive Triblock Copolymer: In Vitro and In Vivo Evaluation. To be presented at 32nd Annual Meeting and Exposition of the Controlled Release Society, Miami Beach, Florida, USA, June 18-22, 2005.

Khaled Al-Tahami and Jagdish Singh, In vitro release of insulin from in situ gel forming smart polymers. Presented at 4th Engebretson Symposium on Drug Discovery and Development, University of Minnesota, Minneapolis, June 9, 2005.

A. Basarkar and J Singh, Controlled gene delivery using cationic microparticles in vitro. Presented at 4th Engebretson Symposium on Drug Discovery and Development, University of Minnesota, Minneapolis, June 9, 2005.

S Chen and J Singh, Controlled release of growth hormone from thermosensitive triblock copolymer: In vitro and in vivo evaluation. Presented at 4th Engebretson Symposium on Drug Discovery and Development, University of Minnesota, Minneapolis, June 9, 2005.

S Singh, DC Webster and J Singh, Smart polymer-based controlled release formulations of leuprolide acetate for suppression of testosterone level in vivo in rabbits. Presented at 4th Engebretson Symposium on Drug Discovery and Development, University of Minnesota, Minneapolis, June 9, 2005.

B Medi and J Singh, Electroporation mediated cutaneous DNA vaccine delivery. Presented at 4th Engebretson Symposium on Drug Discovery and Development, University of Minnesota, Minneapolis, June 9, 2005.

J Singh, Electronically facilitated delivery of proteins and DNA vaccines, Plenary lecture, Indian Pharmaceutical Congress, Kolkata, December 3-5, 2004.

J Singh, Skin targeted DNA vaccine delivery by electroporation, invited lecture, Exogenous Dermatology Symposium II, Weimar, Germany, July 10-11, 2004.

J Singh, Electronically facilitated transdermal delivery of protein and gene, invited lecture, College of Pharmacy, University of Marburg, July 8, 2004.

J. Singh, NDSU Economic Development Day: Pharmacy/Bitech perspectives. Invited lecture, NDSU Tech Park 1, August 12, 2004.

J. Singh, B. Medi. Cutaneous gene delivery using electroporation: effect of electroporation parameters. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

S. Rastogi, J. Singh. *In vitro* and *in vivo* iontophoretic transdermal delivery of lispro insulin: effect of chemical enhancers. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

S. Singh, T. Gustad, J. Singh. Biocompatibility and biodegradability of smart polymer based *in situ* gel forming controlled release drug systems. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

J. Singh, F. Kang. *In vivo* absorption of insulin from microspheres and biocompatibility. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

S. Chen, R. Pieper, D. Webster, J. Singh. Biodegradable *in situ* gel forming copolymers for delivery of contraceptive hormone. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

F. Kang, J. Singh. *In vitro* insulin release from *in situ* forming gel system for basal insulin delivery. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

S. Chen, R. Pieper, D. Webster, J. Singh. Controlled release of a model protein from biodegradable thermosensitive triblock copolymers. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

B. Medi, J. Singh. Skin targeted DNA vaccine delivery using electroporation: efficacy and safety. Presented at AAPS 2004, Baltimore, MD. November 7-11, 2004.

Sibao Chen, Robert Pieper, Dean C. Webster and Jagdish Singh. Biodegradable thermosensitive triblock copolymer PLGA-PEG-PLGA for delivery of protein. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Sibao Chen, Robert Pieper, Dean C. Webster and Jagdish Singh. Controlled release of contraceptive hormones from *in situ* gel forming thermosensitive copolymers. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Feirong Kang and Jagdish Singh. The biocompatibility and *in vitro* insulin release from *in situ* forming gel system. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Feirong Kang and Jagdish Singh. *In vivo* absorption and biocompatibility of insulin-loaded microspheres. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Babu M. Medi and Jagdish Singh. *In vivo* non-viral cutaneous gene delivery using electroporation. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Babu M. Medi and Jagdish Singh. Skin targeted DNA vaccine delivery using electroporation: efficacy and safety. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Sumeet K. Rastogi and Jagdish Singh. Percutaneous absorption enhancement of insulin in diabetic rabbits. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

Somnath Singh, Dean C. Webster and Jagdish Singh. Controlled release of protein and peptide from *in situ* gel forming thermosensitive polymers. Presented at ENGBRETSON SYMPOSIUM 2004, Fargo, ND, May 10-11, 2004.

J. Singh, B. M. Medi. Effect of Electroporation on Skin Barrier Function, Irritation and Viability In Vivo. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

J. Singh, S. K. Rastogi. Effect of Limonene on the In Vitro Iontophoretic Transport of Insulin Through Porcine epidermis. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

S. Chen, J. Singh. Iontophoretic Transport Enhancement of Growth Hormone-Releasing Hexapeptide (GHRP-6) Through Dermatomed Porcine Skin. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

S. K. Rastogi, J. Singh. In Vivo Percutaneous Absorption Enhancement of Lispro Insulin In Rabbits. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

B. M. Medi, J. Singh. In Vivo Cutaneous Delivery of Hepatitis B DNA Vaccine Using Electroporation. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

B. M. Medi, J. Singh. Electroporation Mediated Non-Viral Cutaneous Gene Delivery In Vivo in Rabbits. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

S. Chen, J. Singh. Controlled Release of Levonorgestrel from Biodegradable and Injectable Smart Polymer Formulations. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

F. Kang, J. Singh. Basal Insulin Delivery from Biodegradable and In Situ Forming Gel Formulations. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

J. Singh, T. R. Gustad, S. Singh. Biocompatible and In Situ Gel Forming Phase Sensitive Smart Polymer Formulations for Controlled Release of Proteins in Biologically Active Form. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

S. Singh, T. R. Gustad, D. C. Webster, J. Singh. Controlled Release of Model Proteins from Biocompatible and Thermosensitive Smart Polymer Formulations. Presented at 2003 AAPS Annual Meeting and Exposition, Salt Lake City, Utah, October 26-30, 2003.

S. Chen, J. Singh. Iontophoretic Transport Enhancement of Growth Hormone-Releasing Hexapeptide (GHRP-6) Through Dermatomed Porcine Skin. Presented at 4th Biennial ND/SD Joint EPSCoR Conference, Fargo, ND, September 5, 2003.

B. M. Medi, J. Singh. Non-Viral Gene Delivery to Skin using Electroporation. Presented at 4th Biennial ND/SD Joint EPSCoR Conference, Fargo, ND, September 5, 2003.

J. E. Suchor, S. Chen, J. Singh. Smart Polymer Based Controlled Release Drug Delivery System for Testosterone. Presented at 4th Biennial ND/SD Joint EPSCoR Conference, Fargo, ND, September 5, 2003.

Babu Medi and Jagdish Singh, In vivo cutaneous gene delivery using electroporation. 30th Annual meeting of Controlled Release Society, Glasgow, Scotland, July 19-23, 2003.

S. Singh and J. Singh, Smart polymer based controlled release formulation of a model protein bromelain. 30th Annual meeting of Controlled Release Society, Glasgow, Scotland, July 19-23, 2003

J. Singh: **Invited lecture** on "Conformational stability and delivery of proteins from biodegradable microspheres", International Symposia "PARTICLES 2002", 20-23 April 2002, Orlando, Florida.

J. Singh: **Invited Plenary Lecture** on "Electronically facilitated transdermal delivery of biotechnologically derived molecules", 54th Indian Pharmaceutical Congress, Pune, India, December 13-15, 2002.

N. R. Shitut, S. Singh, and J. Singh. Preparation, characterization and targeting of 5-fluorouracil loaded PLGA microspheres suitable for passive targeting to the lungs. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

S. Chen and J. Singh. *In vitro* iontophoretic delivery of Growth Hormone-Releasing hexapeptide (GHRP-6) through the porcine skin. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

B. M. Medi, S. Chen, R. K. Yan, and J. Singh. Effect of the concentration and valence of electrolytes on electroosmotic water flow during Transdermal Iontophoresis. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

B. M. Medi and J. Singh. Electroporation/Iontophoresis Facilitated Transdermal Delivery of Human Parathyroid Hormone (1-34). Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

J. Singh and S. Singh. *In situ* gel depot forming polymer as controlled drug delivery system for a model protein lysozyme. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

S. Singh and J. Singh. Evaluation of preservatives for protein formulations by differential scanning calorimeter using a model protein lysozyme. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

S. Singh and J. Singh. Skin barrier perturbation, irritation, and microscopic alterations *in vivo* in rabbit from JP-8 jet fuel. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

S. K. Rastogi and J. Singh. Transdermal transport enhancement of leuprolide acetate by depilatories: permeability and FT-IR studies. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

J. Singh and S. K. Rastogi. Effect of iontophoresis and fatty acids on the *in vitro* transdermal transport of leuprolide acetate. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

J. Singh and F. Kang. Conformational stability and biological activity of chymotrypsin during PLGA microspheres synthesis. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

F. Kang and J. Singh. Effect of SDS on the conformational stability of a model protein during w/o emulsification process. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

DeLuca PP, Kang F, Singh J and Jiang G, Protein extraction from PLGA microspheres using PEG: Protein content determination and stability assessment. Presented at the 2002 AAPS Annual Meeting and Exposition, in Toronto, Ontario, Canada on November 10-14, 2002.

J Singh and SK Rastogi, Formation of electrically conductive polar pathways by SC lipid extraction for passive and iontophoretic transport of peptides, 8th International Conference on Perspectives in Percutaneous Penetration, 2-6 April, 2002, Antibes Juan-Les Pins, France.

S Singh and J Singh, Evaluation of stabilizers against destabilization of a model protein lysozyme due to oxidation by hydrogen peroxide. Presented at 29th Annual meeting of Controlled Release Society, Seoul, Korea, July 20-25, 2002.

G Jiang, F Kang, K Na, J Singh and P DeLuca, Strategies for protein extraction from PLGA microspheres: Protein content and stability. Presented at 29th Annual meeting of Controlled Release Society, Seoul, Korea, July 20-25, 2002.

J Singh and SK Rastogi, Passive and iontophoretic transepidermal transport enhancement of peptides. Presented at 29th Annual meeting of Controlled Release Society, Seoul, Korea, July 20-25, 2002.

F. Kang, A. Hinderliter, and J Singh, Stability study of a model protein during PLGA microspheres synthesis by differential scanning calorimetry. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

F. Kang, A. Hinderliter, and J Singh, Stability study of lysozyme toward water/organic solvent interface by differential scanning calorimetry and enzymatic activity assay. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

N. Shitut, A. Sharma, and J. Singh, Passive targeting of a model water-soluble compound to the rat lungs using biodegradable PLGA microspheres. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

G Jiang, BH Woo, F Kang, J Singh, PP DeLuca, Assessment of protein release kinetics, stability and protein-polymer interaction of lysozyme encapsulated poly (d,l-lactide-co-glycolide) microspheres. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

SK Rastogi and J Singh, Effect of stratum corneum lipid extraction on skin resistance. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

SK Rastogi and J Singh, Effect of fatty acids and iontophoresis on the in vitro transdermal transport enhancement of insulin. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

S. Singh and J Singh, Percutaneous absorption and binding to stratum corneum of model aliphatic and aromatic components of JP-8 jet fuel. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

J Singh and S. Singh, Effect of polyols on deamidation of a model protein lysozyme. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

S Singh and J Singh, Polyols stabilize lysozyme against destabilization due to salting out by sodium chloride. Presented at AAPS Annual Meeting and Exposition, Denver, Colorado, October 21-25, 2001.

SK Rastogi and J Singh, Iontophoretic transdermal delivery of insulin: Effect of depilatory lotions. presented at the 28th International Symposium on Controlled Release of bioactive materials, San Diego, USA, June 24-27, 2001.

J Singh and F Kang, Effect of additives on the release of protein from PLGA microspheres. Presented at the 28th International Symposium on Controlled Release of bioactive materials, San Diego, USA, June 24-27, 2001.

S Singh and J Singh, Percutaneous absorption of model aliphatic and aromatic solutes. Presented at the 28th International Symposium on Controlled Release of bioactive materials, San Diego, USA, June 24-27, 2001.

SK Rastogi and J Singh, Effect of fatty acids on the in vitro iontophoretic transport of leuprolide acetate through porcine epidermis. Presented at the 28th International Symposium on Controlled Release of bioactive materials, San Diego, USA, June 24-27, 2001.

Somnath Singh and Jagdish Singh, Percutaneous absorption, biophysical, macroscopic, and microscopic barrier perturbation from six major components of JP-8 jet fuel. Presented at JP-8 Conference, Tucson, Arizona, January 10-12, 2001.

J Singh and F Kang, Influence of polyethylene glycol on the physico-chemical characteristics and in vitro release of a model protein from PLGA microspheres. Presented at Pharmaceutical congress of Americas, Orlando, FL, March 24-29, 2001. Abstract # 2205, p. 112.

J Singh and S Singh, Effect of naphthalene and 1-methylnaphthalene on biophysical, macroscopic and microscopic properties of skin. Presented at Pharmaceutical congress of Americas, Orlando, FL, March 24-29, 2001. Abstract # 2300, p. 118.

S Singh and J Singh, Effect of aliphatic constituents of JP-8 on skin lipid and protein biophysics, and in vitro transepidermal water loss. Presented at Pharmaceutical congress of Americas, Orlando, FL, March 24-29, 2001. Abstract # 2301, p. 118.

SK Rastogi and J Singh, Effect of unsaturated fatty acids on the in vitro iontophoretic transport of insulin through porcine epidermis. Presented at Pharmaceutical congress of Americas, Orlando, FL, March 24-29, 2001. Abstract # 2217, p. 116.

J Singh and SK Rastogi, Effect of lipid extraction by alkyl acetates on the in vitro iontophoretic transdermal transport of leuprolide acetate. Presented at Pharmaceutical congress of Americas, Orlando, FL, March 24-29, 2001. Abstract # 2218, p. 116.

J. Singh and M.J. Schaefer, Polymer degradation and release of etoposide, presented at the 27th International Symposium on Controlled Release of bioactive materials, Paris, France, July 7-13, 2000.

S.K. Rastogi and J. Singh, Lipid extraction enhances iontophoretic transport of solutes, Presented at the 27th International Symposium on Controlled Release of bioactive materials, Paris, France, July 7-13, 2000.

J Singh and F Kang, Characterization and in vitro release of a model protein from PLGA microspheres. presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

J Singh and S Singh, Effect of JP-8 on the biophysical, macroscopic and microscopic properties of the skin. presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

S Singh, K Zhao, and J Singh, Pig skin as model for humans to study in vitro percutaneous absorption of chemicals. presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

S Singh, and J Singh, Ultrastructural changes in the porcine skin due to JP-8 exposure. Presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

J Singh, K Zhao, and S Singh, Barrier function and irritation from chemicals in vivo in weanling pigs. Presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

N Shitut, and J Singh, Synthesis of biodegradable microspheres containing water soluble tracer compound for passive targeting to the lung. Presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

SK Rastogi and J Singh, Percutaneous absorption enhancement of insulin by iontophoresis. Presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

SK Rastogi and J Singh, Effect of dilipidization on the in vitro iontophoretic transport of model polar solutes. Presented at annual AAPS meeting, Indianapolis, October 29-November 2, 2000.

Jagdish Singh, Mechanisms of iontophoretic transdermal delivery of peptides, presented at the First Engebretson Symposium on Drug Discovery and Development, Minneapolis, May 19-20, 2000.

J. Singh, Skin lipid and protein biophysics, ultrastructure and dermatotoxicity from JP-8 jet fuel. Presented at AFOSR JP-8 Jet Fuel Toxicology Workshop, The Univ. of Arizona, Tucson, Jan. 11-12, 2000.

SK Rastogi, Somnath Singh, and Jagdish Singh, Iontophoretic transport of polar non-ionic and ionic solutes, presented at the First Engebretson Symposium on Drug Discovery and Development, Minneapolis, May 19-20, 2000.

MJ Schaefer, Feirong Kang, Nikhil Shitut, and Jagdish Singh, Synthesis and characterization of etoposide-PLGA microspheres suitable for targeting to lung, presented at the First Engebretson Symposium on Drug Discovery and Development, Minneapolis, May 19-20, 2000.

J. Singh and K. Zhao, Mechanism(s) of percutaneous absorption by alkyl esters, presented at the 26th International Symposium on Controlled Release of bioactive materials, Boston, June 20-25, 1999.

K. Zhao and J. Singh, Enhancement in skin permeability of tamoxifen, presented at the 26th International Symposium on Controlled Release of bioactive materials, Boston, June 20-25, 1999.

M.J. Schaefer and J. Singh, Release kinetics of etoposide from PLGA Microspheres, presented at the 26th International Symposium on Controlled Release of bioactive materials, Boston, June 20-25, 1999.

J. Singh and K. S. Bhatia, Iontophoretic skin permeability of LHRH and lipid extraction, presented at the 26th International Symposium on Controlled Release of bioactive materials, Boston, June 20-25, 1999.

J. Singh and K.S. Bhatia, Percutaneous Absorption Enhancement of Peptides by Chemical Enhancers/Iontophoresis, presented at the 1999 Macromolecular Drug Delivery Conference, Breckenridge, Colorado, July 14-17, 1999.

K. Zhao and J. Singh, Mechanisms of percutaneous absorption of tamoxifen by alkyl esters/ethanol, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

A. K. Orn and J. Singh, Effect of unsaturated fatty acids and propylene glycol on the in vitro percutaneous absorption of tamoxifen and macroscopic barrier properties of porcine epidermis, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

M. J. Schaefer and J. Singh, Effect of isopropyle-myristic acid ester on physico-chemical characteristics and etoposide release from PLGA microspheres, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

M. J. Schaefer and J. Singh, Synthesis and characterization of etoposide-loaded poly (lactic-co-glycolic acid) microspheres, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

J. Singh, Skin barrier function and irritation from JP-8 in weanling pigs, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

S. K. Rastogi, J. S. Bhatia, and J. Singh, Quantification of leuprolide acetate by High Performance Liquid Chromatography, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

K. S. Bhatia and J. Singh, In vitro percutaneous absorption enhancement of LHRH by chemical enhancers/iontophoresis, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

S. K. Rastogi and J. Singh, Effect of dilipidization on the in vitro percutaneous absorption of polar solutes, presented at annual AAPS meeting, New Orleans, November 14-18, 1999.

M. Schaefer and Jagdish Singh, Etoposide microspheres for targeting to the lung, Proceeding International Symposium Controlled Release Bioactive Materials, 24: 441-442, 1998. Presented at 25th International Symposium on Controlled Release of Bioactive materials, June 21-24, 1998, Las Vegas, USA.

Jagdish Singh and K.S. Bhatia, Mechanism of enhanced percutaneous absorption of LHRH, Proceeding International Symposium Controlled Release Bioactive Materials, 24: 577-578, 1998. Presented at 25th International Symposium on Controlled Release of Bioactive materials, June 21-24, 1998, Las Vegas, USA.

M. Bi and J. Singh, Degradation of LHRH in biological tissues, Proceeding International Symposium Controlled Release Bioactive Materials, 24: 693-694, 1998. Presented at 25th International Symposium on Controlled Release of Bioactive materials, June 21-24, 1998, Las Vegas, USA.

Jagdish Singh, Effect of JP-8 on the percutaneous absorption and toxicity of other chemicals: Biophysical and physiological aspects, International Conference on the Environmental Health & Safety of Jet Fuel, 1-3 April, 1998, San Antonio, USA.

J. Singh, Skin permeability, biophysics, and irritation from JP-8, Invited lecture at AFOSR JP-8 Jet Fuel Toxicology workshop, The University of Arizona, Tucson, December 2-3, 1998.

J. Singh and M. Bi, Effect of enzyme inhibitors on the degradation of vasopressin in the skin, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

J. Singh and K. Zhao, Effect of JP-8 on the lipid biophysics and macroscopic barrier properties of the skin, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

M. Bi and J. Singh, A HPLC method for quantification and separation of arginine containing vasopressin, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

M. Bi and J. Singh, Stability of vasopressin in aqueous solution, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

J. Bhatia and J. Singh, Biodegradable porous microspheres for pulmonary delivery of proteins and peptides, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

J. Singh and K. Zhao, Effect of jet fuel on the percutaneous absorption of model solutes, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

K. Zhao and J. Singh, In vitro percutaneous absorption enhancement of propranolol hydrochloride by enhancers, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

K. Zhao and J. Singh, Effect of terpenes in combination with propylene glycol or ethanol on the percutaneous absorption of tamoxifen, presented at annual AAPS meeting, San Francisco, November 15-19, 1998.

J. Singh, Skin permeability, biophysics, and irritation from JP-8, Invited lecture at AFOSR JP-8 Jet Fuel Toxicology workshop, The University of Arizona, Tucson, December 2-3, 1998.

S. Gao, K.S. Bhatia and J. Singh, Effect of menthol on 5-fluorouracil permeability, skin biophysics, and integrity, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-305, 1997.

K. Zhao and J. Singh, Effect of terpenes in combination with co-solvent propylene glycol on the percutaneous absorption of tamoxifen, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 14, S-304, 1997.

K.S. Bhatia and J. Singh, In vitro skin permeation enhancement effects of terpenes and iontophoresis on the LHRH permeability through porcine skin, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-311, 1997.

M. Bi and J. Singh, Degradation of synthetic luteinizing hormone-releasing hormone in aqueous solution, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-345, 1997.

M. Bi and J. Singh, Modified HPLC method for quantification of luteinizing hormone-releasing hormone, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-585, 1997.

K.S. Bhatia and J. Singh, Synergistic effect of unsaturated fatty acids and iontophoresis on LHRH permeability through porcine skin, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-311, 1997.

S. Gao, K.S. Bhatia and J. Singh, Effect of terpenes on in vitro percutaneous absorption of tamoxifen, accepted for presentation at annual AAPS meeting, Boston, November 2-6, 1997. Abstracted in *Pharmaceutical Research*, 13, S-304, 1997.

J. Singh and K.S. Bhatia, Mechanisms of percutaneous penetration enhancement of peptides by chemical enhancer/iontophoresis, Presented at joint Dakota EPSCoR conference, September 26-27, 1997.

J. Singh and K.S. Bhatia, Iontophoretic enhancement of LHRH by series of fatty acids through porcine skin, Presented at joint Dakota EPSCoR conference, September 26-27, 1997.

K. Zhao, K.S. Bhatia, and J. Singh, Effect of terpenes on transdermal transport of tamoxifen, Presented at joint Dakota EPSCoR conference, September 26-27, 1997.

J Singh and S Gao, Effect of penetration enhancer on 5-FU permeability, skin biophysics and integrity, *Proceeding International Symposium Controlled Release Bioactive Materials*, 23: 283-284, 1996. Presented at 23rd International Symposium on Controlled Release of Bioactive materials, July 7-10, 1996, Kyoto, Japan.

KS Bhatia and J Singh, Effect of penetration enhancers and iontophoresis on the LHRH permeability and FT-IR spectroscopy, *Proceeding International Symposium Controlled Release Bioactive Materials*, 23: 287-288, 1996. Presented at 23rd International Symposium on Controlled Release of Bioactive materials, July 7-10, 1996, Kyoto, Japan.

K.S. Bhatia and J. Singh, Effect of penetration enhancers on the LHRH permeability through porcine skin, Presented at Midwest Regional Meeting, May 20, Chicago, 1996.

KS Bhatia and J Singh, Effect of iontophoresis and penetration enhancers on LHRH permeability, skin biophysics and ultrastructure. Presented at Midwest Regional Meeting, May 20, Chicago, 1996.

Shen Gao and J Singh, Mechanisms of action of penetration enhancers: Effect of dimethyl sulfoxide and dimethyl formamide on the skin biophysics and integrity, Presented at Midwest Regional Meeting, May 20, Chicago, 1996.

S Gao and J Singh, Fourier transform infrared spectroscopy and macroscopic barrier integrity of porcine stratum corneum: Effect of oleic acid and propylene glycol, Presented at Midwest Regional Meeting, May 20, Chicago, 1996.

S Gao and J Singh, Mechanisms of action of penetration enhancers in transdermal transport of 5-Fluorouracil, PGSRM, Minneapolis, June, 1996.

KS Bhatia and J Singh, Mechanisms of iontophoretic transport of LHRH through porcine epidermis in the presence of oleic acid/propylene glycol, PGSRM, Minneapolis, June, 1996.

J Singh and KS Bhatia, Influence of iontophoresis and penetration enhancers on the transdermal delivery of CCK-8 and biophysical changes in skin., presented at AAPS Annual Meeting, Seattle, October 27-31, 1996. Abstracted in *Pharmaceutical Research*, 13, S-362, 1996.

J Singh and S Gao, Mechanisms of transdermal transport of 5-FU by Oleic acid/Propylene glycol. Presented at AAPS Annual Meeting, Seattle, October 27-31, 1996. Abstracted in *Pharmaceutical Research*, 13, S-251, 1996.

KS Bhatia and J Singh, The effect of N-methyl-2-pyrrolidone and isopropyl myristate on the LHRH permeability through the skin. Presented at AAPS Annual Meeting, Seattle, October 27-31, 1996. Abstracted in *Pharmaceutical Research*, 13, S-86, 1996.

S Gao and J Singh, Effect of dimethyl sulfoxide, dimethyl formamide and dimethyl acetamide on the stratum corneum lipid biophysics and barrier integrity. Presented at AAPS Annual Meeting, Seattle, October 27-31, 1996. Abstracted in *Pharmaceutical Research*, 13, S-381, 1996.

KS Bhatia and J Singh, Effect of dimethyl acetamide and 2-pyrrolidone on the iontophoretic permeability of LHRH through porcine epidermis, Presented at AAPS Annual Meeting, Seattle, October 27-31, 1996. Abstracted in *Pharmaceutical Research*, 13, S-362, 1996.

Kuljit Bhatia and Jagdish Singh, Pig skin as a model for predicting percutaneous absorption for humans, Presented at AAPS Regional Meeting, Chicago, May 1995.

J Singh and S Ganga, Facilitation of in vitro percutaneous absorption of metoprolol through human epidermis by iontophoresis. Presented at AAPS Annual Meeting, Miami Beach, November 5-9, 1995. Abstracted in *Pharmaceutical Research*, 12 (9) S-247, 1995.

K S Bhatia and J Singh, Iontophoretic transport of non-electrolytes through pig skin as a model for humans. . Presented at AAPS Annual Meeting, Miami Beach, November 5-9, 1995. Abstracted in *Pharmaceutical Research*, 12(9), S-284, 1995.

J Singh and M S Roberts, Factors affecting iontophoretic transport of amphoteric solutes through human epidermis. Presented at AAPS Annual Meeting, Miami Beach, November 5-9, 1995. Abstracted in *Pharmaceutical Research*, 12(9), S-284, 1995.

N. Kannikannan, J. Singh and P.R. Rao, Comparison of in-vitro transdermal iontophoretic transport of timolol maleate across the skin of different species; International Seminar on the Recent Trends in Pharmaceutical Sciences, Ootacamund, February 1995.

J Singh, M Gross, M O'Connell, B sage, and H I Maibach, Effect of iontophoresis in different ethnic groups' skin function. Proceeding International Symposium Controlled Release Bioactive Materials, 21, pp 365-366, 1994. Presented at 21st International Symposium on Controlled Release of Bioactive materials, June 27-30, 1994, Nice, France.

J Singh, M Gross, M O'Connell, B Sage and H I Maibach, Effect of skin preparation and iontophoresis on skin functions and irritation in human volunteers., CS 3011, 9th Annual AAPS Meeting, San Diego, November 6-10, 1994. Abstracted in Pharmaceutical Research, 11(10), S-101, 1994.

J Singh, M S Roberts and H I Maibach, Iontophoretic transport of non-electrolytes through human epidermis, PDD 7067, 9th Annual AAPS Meeting, San Diego, November 6-10, 1994. Abstracted in Pharmaceutical Research, 11(10), S-191, 1994.

N Kannikkannan, J Singh and P Rama Rao, Influence of penetration enhancers pretreatment on the transdermal iontophoretic delivery of timolol maleate.; 46th Indian Pharmaceutical Congress, Chandigarh, India, December 1994.

Jagdish Singh, S. Singh and S.B. Jayaswal, Effect of penetration enhancer and iontophoresis on the surface characteristics and invitro transport of methotrexate through human epidermis. AAPS Regional meeting, March 29-30, San Francisco, 1993.

Jagdish Singh, S. Karunakar and S. Madhu Sudhan, Optimization of Physico-chemical characteristics of drug loaded albumin microspheres for passive targeting to lung. AAPS Regional meeting, March 29-30, San Francisco, 1993.

J. Singh and M.S. Roberts, Transdermal transport of amphotericin through human skin by iontophoresis. Indian Pharmaceutical Congress (IPC), CP 6, 1991.

S. Ganga and J. Singh, Evaluation of physico-chemical factors affecting the iontophoretic delivery of metoprolol tartrate, IPC , I12, 1991.

S.B. Jayaswal, J. Singh and B. Uma Surekha, Hydrodynamically balanced systems of captopril in -vitro studies., IPC, C22,1991.

N. Ganguli, S.B. Jayaswal, J. Singh and M.M. Verma, Preparation and evaluation of controlled release capsules of glibenclamide. IPC, C19, 1991.

R.P. Singh and J. Singh, Optimization of drug loading and particle size in aminophylline microspheres. K.P. Tripathi, IPC , C17, 1991.

S. Singh, S.B. Jayaswal, J. Singh and S.N. Upadhyay, Iontophoretic transport of methotrexate: effect of penetration enhancers. IPC, C9, 1991.

R.K. Pandey, S.B. Jayaswal, J. Singh and S. Satyanarayana, Transport of piroxicam through synthetic membrane and rat skin from ointment bases. IPC, C6, 1991.

J Singh and D.H. Robinson, Ethyl cellulose viscosity grades on coating thickness characteristics and permeation of captopril microcapsules. 7th International Symposium on microencapsulation, Glasgow, Scotland, 2-4 April, 1990.

S. Ganga, S.B. Jayaswal, P.N. Singh and J. Singh, Formulation and evaluation of matrix based sustained

release tablets of propranolol hydrochloride. IPC, 42, IP 04, P.93,1990.

J. Singh, K.P. Tripathi, S. Singh and A.K. Srivastava, Optimization of physico-chemical properties of aminophylline loaded albumin microspheres. IPC, 42, IP 03,P.93, 1990.

S. Singh, S.B. Jayaswal and J. Singh, Transdermal delivery of methotrexate by iontophoresis. IPC, 42, CP42, P.82, 1990.

J. Singh, A.K. Srivastava, S. Singh and T.R. Saky, Formulation and in-vitro evaluation of transdermal patches of ephedrine. IPC, 42,CP16, P.76, 1990.

J. Singh and M.S. Roberts, Iontophoretic and passive transport of TRH across human skin. 41st , IPC, IK5, 1989.

S. Singh, J. Singh, S.B. Jayaswal and S.N. Upadhyay, Transdermal delivery of propranolol hydrochloride by iontophoresis. 41st IPC, C24, 1989.

J. Singh and M.S. Roberts, Facilitated transport of non-electrolytes by iontophoresis. Seminar on recent advances in biochemical engineering, Banaras, 1989.

A.S. Das, S. Singh and J. Singh, Drugs affecting in-vitro captopril protein binding. 40th IPC, 1988.

J. Singh and D.H. Robinson, Controlled release kinetics of captopril microcapsules. Controlled Release Technolgy Symposium, Brisbane, Australia,1986.

O.N. Singh, J. Singh, and S.B. Jayaswal , Formulation, bioavailability and pharmacokinetics of phenytoin sodium suppositories. 36 IPC,C39,1985.

O.N. Singh, J. Singh, S.B. Jayaswal and H.S. Srivastava, Effects of nymcel on the formulation, bioavailability and pharmacokinetics of phenytoin sodium tablets. 36th IPC,31, 1985.

J. Singh and S.B. Jayaswal, Bioavailability and pharmacokinetics of lorazepam tablets containing sodium lauryl sulphate and tween 80. 35th IPC,40, 1984.

J. Singh and S.B. Jayaswal, Relative bioavailability of lorazepam from rectal suppositories with respect to oral solution. 35th IPC, 39, 1984.

H.S. Srivastava, J. Singh and S.B. Jayaswal, Biopharmaceutical evaluation of glibenclamide tablets and their correlation with suppository dosage forms. 33 IPC, F8, 1982.

A.K. Srivastava, J. Singh and S.B. Jayaswal, Formulation of sustained release chlorpheniramine maleate tablets. 33rd IPC F7, 1982.

J. Singh and S.B. Jayaswal, Sustained release tablet formulation of diethyl carbamazine citrate. 31st IPC, 1980.

Marketa Marvanova, Pharm.D., Ph.D., BCGP, BCPP

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PROFESSIONAL SUMMARY

I am an experienced and skilled leader, administrator, clinician, educator and researcher, committed to quality education, research and patient-centered care grounded in sound evidence and attained through effective, inter-professional and multi-disciplinary teamwork, particularly in the areas of geriatrics, neurological and psychiatric disorders.

LEADERSHIP, TEACHING AND SUPERVISION PRIORITIES

- Apply sound analytical, organizational, and decision-making concepts to practical problem-solving.
- Be a valuable member of the team, especially when team leader.
- Ensure evidence drives performance improvement efforts.
- Make expectations clear.
- Participate while teaching and teach while leading.
- Communicate clearly, effectively and with sensitivity.
- Pay attention to detail to maximize effectiveness and efficiency.
- Demonstrate expertise and develop mastery.
- Build community and a culture of positive change.
- Foster creativity and innovation.
- Maintain an environment open to criticism and innovation.
- Safeguard the worth of every individual.
- Utilize resources effectively.
- Work to ensure successful cooperative relationships and partnerships.
- Ensure priorities support strategic, accreditation and mission-driven goals.
- Utilize technology wisely to enhance program outcomes.

PHARMACY SKILLS SUMMARY

- Excellent critical thinking and consulting skills for the provision of patient-centered care,
- Manage patient safety in out- and inpatient settings using well-developed technical and analytical skills,
- Highly detail-oriented in monitoring, dispensing and administration of medications,
- Communicate effectively and with sensitivity with individuals from diverse backgrounds,
- Effectively explain and discuss pharmacology, dosing, contraindications/precautions, ADEs and interactions with health professionals,
- Expert delivery of pharmacy-based immunizations, immunization and prevention consulting,
- Excellent interpersonal and team skills for multi-disciplinary care,
- Very knowledgeable in gerontology, geriatric pharmacy, management of psychiatric and neurologic disorders,
- Highly skilled and trained in advanced care management of Parkinson's disease motor/nonmotor symptoms, epilepsy and epilepsy syndromes, dementia, multiple sclerosis and amyotrophic lateral sclerosis
- Analyze treatment options in consideration of pathophysiology, drug-related etiology, and therapeutic guidelines,
- Provide information and advice on self-care management.

PROFESSIONAL EXPERIENCE

COLLEGE OF HEALTH PROFESSIONS, SCHOOL OF PHARMACY, NORTH DAKOTA STATE UNIVERSITY, FARGO, ND

Chair of the Pharmacy Practice Department

July 2015-present

Associate Professor

- Departmental leadership/management: oversight for 25 full-time faculty, 2 part-time faculty, and 3 staff members; the Office of Experiential Education and the Office of Continuing Pharmacy Education Program;
- ACPE accreditation progress, interim, and self-study reports.
- Faculty teaching assignment; faculty/staff annual performance-based evaluation; Department budget management; curriculum management (alignment/integration across the disciplines and based on ACPE 2016 standards, curricular changes in content); faculty development in teaching, scholarship and service; College Executive Council member
- Development/Coordination of IPE simulation in opioid overdose with UND School of Medicine and one hour initial group discussion for P3 pharmacy and M2 medical learners.
- Secured teaching enrichment funds (\$52,857.60) for durable equipment from a competitive NDSU Provost's Office call.
- Course Coordinator and Instructor in Pharm.D. curriculum dealing with pathophysiology, etiology, clinical manifestation, diagnostic and management of neurological, psychiatric disorders, and pain management
- Development of training in Alzheimer's disease/dementia for pharmacists in North Dakota
- Community-based initiative in stroke/TIA recognition, prevention, and education in North Dakota
- Neuropsychiatry research (PI, Co-PI) and clinical consulting in the area of neuropsychiatry

NORTHWESTERN UNIVERSITY, FEINBERG SCHOOL OF MEDICINE, DEPARTMENT OF NEUROLOGY, CHICAGO, IL

Adjunct Associate Professor of Neurology

2014-present

- Neuropsychopharmacology education for neurology medical residents (2013-2015)
- Speaker at Neurology Grand Rounds: Epilepsy
- PI, Medication Errors in Hospitalized Parkinson's Disease Patients
- Research supervision/mentoring, 4th year neurology medical residents, fellow and undergraduate students: leadership for quality improvement initiatives associated with Inpatient management of PD
- Therapeutic updates for neurologists and epileptologists

RUSH UNIVERSITY MEDICAL CENTER, CHICAGO, IL

Clinical Pharmacy Specialist, Neurology

2013-2015

- Inpatient and outpatient neuropsychiatric clinical services for the RUMC Epilepsy Center
- Pharmacy clinical consult service for the RUMC General Neurology (inpatient/outpatient), Multiple Sclerosis, the Memory Clinic and MS specialty pharmacy services
- Monographs and applications for inpatient formulary inclusion: Ampyra© (2014), Fycompa© (2014), Aptiom© (2015), & Amytal© (2015)
- Primary preceptor for hospital-based IPPEs & elective APPEs in neuropsychiatry
- Facilitation of pharmacy resident discussion topics in neurology
- Medication education for neurology practitioners and nursing staff (RN, NP, neurology residents)

and fellows), and members of epilepsy support group

PROFESSIONAL EXPERIENCE (Continued)

COLLEGE OF PHARMACY, CHICAGO STATE UNIVERSITY, CHICAGO, IL

***Associate Professor (Neurology and Psychiatry), Pharmacy Practice* 2012-2015 (June)**

- Clinical Course Coordinator and Instructor for clinical part of curriculum dealing with management of neurological, psychiatric disorders, pain management and neuropsychiatric issues in elderly.
- Specialist in neuropsychiatry and comprehensive management of epilepsy and neurodegenerative disorders: ALS, MS, dementia/neurocognitive disorders, primary parkinsonism and HD.
- Instructor in Disease and Medication Therapy Management (DMTM) II (interactive lectures and case studies in the area of neuropathic pain, geriatric psychiatry)
- Instructor in physical assessment course and clinical conference sessions in internal medicine
- Course Development/Instructor of specialty elective course/s in neurology and psychiatry for 3rd year pharmacy students: Management of Brain Degenerative Disorders
- Mentor for new pharmacy faculty/educators
- Capstone Research Mentor
- Preceptor/Clinical Pharmacy Specialist at Rush University Medical Center (RUMC), Department of Neurology
- PI, Health disparities in assessment of access to and prescribing in community dwelling PD patients within NPF Centers of Excellence
- Co-PI, Chicago Neurological Medication Availability Study
- Co-PI, Northern Plains Cognitive Enhancer Access Study
- Co-PI, Appalachian Rural Pharmacy Disparities Study

SCHOOL OF PHARMACY, MIDWAY COLLEGE, PAINTSVILLE, KY

Assistant Professor, Pharmacy Practice

2011-2012

- Bridging biomedical and pharmaceutical sciences with clinical sciences and application
- Clinical Course Coordinator for neurological disorders, pain management, psychiatric disorders, addiction, basic nutrition, metabolic and endocrine disorders, kidney diseases, acid/base balance disorders, anemia, women's reproductive health, patient care delivery and patient safety
- IPPD Case-Based Skills Lab 2 and 3
- Coordinator/Trainer for Pharmacy-Based Immunization Delivery Program
- Creator and Director of Women's Health Track
- Co-chair of Department of Pharmacy Practice Curriculum Development Committee
- Scientific lead for prescription drug abuse working group
- Mentor for new pharmacy faculty/educators

PROFESSIONAL EXPERIENCE (Continued)

HEALTH SERVICES, VANDERBILT UNIVERSITY SCHOOL OF MEDICINE, NASHVILLE, TN

Assistant Clinical Professor of Medicine, Clinical Pharmacy **2009–2013**

- Clinical Pharmacist/Researcher on Harvard-Vanderbilt PILL-CVD Study and Geriatric Dashboard Study
- Founding Member, Medication Use that is Safe and Effective (MUSE) group
- Member, Geriatrics and Gerontology Interest group
- Instructor, CE credit program for clinical pharmacists at Vanderbilt University
- Consultant on animal models of Parkinson's disease

VANDERBILT UNIVERSITY MEDICAL CENTER and HOSPITAL, NASHVILLE, TN

Clinical Pharmacy Specialist, inpatient and outpatient geriatric services **2009-2011**

- Precepting pharmacy students during their geriatric medicine services
- Conducted comprehensive medication review and counseling
- Participated on multi-disciplinary patient rounds team
- Consult and drug information service

COLLEGE OF PHARMACY, BELMONT UNIVERSITY, NASHVILLE, TN

Assistant Professor, Clinical Pharmacology **2007–2011**

- Bridging biomedical and pharmaceutical sciences with clinical sciences and application
- Course Director/Instructor for Clinical and Pharmaceutical Science Courses (infectious diseases, neurological and psychiatric disorders, pharmacogenomics, clinical microbiology and immunology, medical gerontology and geriatrics, emerging and reemerging Infectious disease in the US, advanced care management for patient with Parkinson's and Alzheimer's disease)
- Coordinator/Trainer for Pharmacy-Based Immunization Delivery and Web-Based Immunization Training programs
- Faculty representative and group coordinator of External Advisory Board for Pharmacotherapy Curricular Concentration
- Nominated for Belmont's Chaney Distinguished Professor Award
- Founding Member, College of Health Sciences Interdisciplinary Simulation Committee
- Member of Faculty Senate at Belmont University
- Mentor for new and junior pharmacy faculty/educators

KROGER PHARMACY, BRENTWOOD, TN

Pharmacist **2006–2007**

Certified Immunizer **2007-2011**

PROFESSIONAL EXPERIENCE (Continued)

SCHOOL OF MEDICINE, VANDERBILT UNIVERSITY, NASHVILLE, TN

Medical Research Fellow (Department of Pharmacology)

2005–2006

- CNS research studies targeted at development of new therapeutic interventions for neurodegenerative and psychiatric disorders using various animal models. The primary focus was on development and pre-clinical testing and evaluation of agents acting on metabotropic glutamatergic receptors, mGluR 4, 5 and 8.

Medical Research Fellow (Department of Anesthesiology)

2004–2005

- Research in the field of Parkinson's disease and alpha-synucleinopathies using cell cultures, transgenic *C. elegans*. The main focus was identification of pathways and networks associated with vulnerability of dopaminergic neurons and screen for neuroprotective agents.
- Laboratory personnel, projects and supply management
- Supervision of graduate and undergraduate students
 - Alisha Joy Russel (PhD neuroscience rotation); November 2004- December 2004
 - Brannon Verret (PhD neuroscience rotation); January 2005-February 2005
 - Cara Roxanne McManus (NSC 292 course, summer student-40h/wk); January 2005-May 2005; June 2005-August 2005
 - David Lund (PhD neuroscience rotation); November 2004- December 2004
 - Jennifer Andersen (Princeton University, Summer Science Academy-40h/wk); June 2005
 - Jennifer Edl (PhD neuroscience rotation) January 2004-February 2004
 - Jennifer Reiner (PhD neuroscience rotation), Jan. 2005-Feb. 2005
 - Katherine Delisio (summer student-12h/wk); June 7th-June 20th 2005
 - Katherine Lee Fallen (work study-20h/wk, summer student-40h/wk); January 2005-June 2005
 - Katrina A. Mattingly (Meharry Medical College, Summer COE grant-25h/wk); June 2005
 - Kristen Deboise (NSC 292 course); January 2005-May 2005
 - Michelle Fullard (NSC 292; summer student 40h/wk and work study-20h/wk); May 2004-May 2005
 - Mika Garret May (graduate student); May 2004-April 2005
 - Tiffany Feltman (work study-12h/wk, summer student- 40h/wk); May 2004-August 2004
 - Veronica Nicole Patterson (work study-12h/wk); January 2005-May 2005
 - William Paul Nobis (MD/PhD neuroscience rotation); January 2005-May 2005

SANOFI-AVENTIS, VITRY SUR SEINE, FRANCE

Visiting Research Fellow

2001

- Neurogenomic research study with human and non-human primate brain tissue
- Scientific interaction and idea/information exchange with Drs. Ervan Bezard and Laurent Pradier

PROFESSIONAL EXPERIENCE (Continued)

SCHOOL OF PHARMACY, UNIVERSITY OF EASTERN FINLAND, KUOPIO, FINLAND

Medical Researcher

2000–2004

- Neurogenomics and neuropharmacology research in the field of Parkinson's disease and dementias in collaboration with Merz Pharmaceuticals, LLC. One of the focus was the identification of potential neuroprotective effect of memantine and characterization of genes and network involved in its effect in the CNS.
- Organizer and lecturer of various undergraduate and graduate level courses

SCHOOL OF PHARMACY, CHARLES UNIVERSITY, CZECH REPUBLIC

Doctoral Clinical and Research Fellow

1999–2003

1ST MEDICAL FACULTY HOSPITAL PHARMACY, PRAGUE, CZECH REPUBLIC

Clinical Pharmacy Fellow, psychiatry and neurology

1999

- Inpatient and outpatient services

EDUCATION/TRAINING

NORTHWESTERN UNIVERSITY, FEINBERG SCHOOL OF MEDICINE, PARKINSON'S DISEASE AND MOVEMENT DISORDERS CENTER, CHICAGO, IL

American Society of Consultant Pharmacists Pharmacotherapy Traineeship (2010)

VANDERBILT UNIVERSITY, SCHOOL OF MEDICINE, NASHVILLE, TN

Medical Research Fellow (2004-2006) in neuroscience and neuropsychopharmacology

UNIVERSITY OF EASTERN FINLAND (formerly known as KUOPIO UNIVERSITY), SCHOOL OF PHARMACY, A.I. VIRTANEN INSTITUTE FOR MOLECULAR SCIENCES, KUOPIO, FINLAND

Doctor of Philosophy in Neuropharmacology (2004)

- Dissertation: "Genomic approaches to understand the effects of neuroprotective drugs and validity of nonhuman primate models of neurodegenerative diseases."

SCHOOL OF PHARMACY, CHARLES UNIVERSITY, HRADEC KRALOVE, CZECH REPUBLIC

Doctor of Philosophy in Pathological Neurobiochemistry and Xenobiochemistry (2003)

- Dissertation: "*Caenorhabditis elegans*, microarrays and expressed sequence tags in genomic neurobiochemistry."

Doctor of Pharmacy (2003)

Master of Science in Pharmacy (1999)

- Thesis: "Physiological regulation of tyrosine hydroxylase: influence by atipamezole."

CURRENT LICENSES / CERTIFICATIONS / TRAININGS

2018 Pain Management (American Society of Health-System Pharmacists)
2017 Pain Management (Arizona Pharmacy Association)
2017 Self-Study Training Workshop (Accreditation Council for Pharmacy Education)
2016 Mental Health First Aid USA Certificate (National Council For Behavioral Health)
2015 Chairs and Academic Administrators Management Program (Academy for Academic Leadership)
2014 Board Certified Psychiatric Pharmacist (BCPP)
2014 Anticoagulation Therapy Management for Pharmacists (UF College of Pharmacy)
2013 Physical Assessment for the Pharmacist Clinician (UNM College of Pharmacy)
2013 The Pharmacist & Patient-Centered Diabetes Care (APhA)
2012 Registered Pharmacist, Illinois
2012 American Heart Association (AHA) - Basic Life Support (BLS) for Healthcare Providers
2012 Board Certified Geriatric Pharmacist (BCGP)
2010 Immunization Training for Pharmacists, Immunizer and Trainer (Drug Store News)
2010 Parkinson's Disease Pharmacotherapy Traineeship (ASCP/NW University Feinberg SOM)
2008 Certified Immunization Trainer (APhA)
2008 Registered Pharmacist, Tennessee
2007 Certified Immunizer (APhA)

HONORS AND AWARDS

- 2018 Best Poster/Original Research Study (3rd place) ACCP Virtual Poster Symposium
 - the research paper entitled “Benefits of Structured Interactive Workshop in Alzheimer’s and Parkinson’s Disease as an Add-on to Didactic Lectures for Third-Year Pharmacy Students”
- 2018 The Clinical Teacher’s annual IMPACT Award (Improving Practitioners as Clinical Teachers)
 - the article entitled “Collaborating on medication errors in nursing” was selected as the top downloaded paper with a significant contribution to the field.
- 2017 Best Poster/Original Research Study (3rd place) ACCP Virtual Poster Symposium
 - The research paper entitled “Can Use of the Standard and Revised Winter-Tozer Formula Accurately Predict Free Phenytoin Concentrations in Non-Critically Ill Hospitalized Patients?”
- 2016 Apple Polisher, North Dakota State University
- 2015 Teacher of the Year P3 class, Chicago State University College of Pharmacy
- 2015 The Most Enthusiastic Professor, Class 2015, Chicago State University College of Pharmacy
- 2014 Teacher of the Year P1 class, Chicago State University College of Pharmacy
- 2009 Nomination for Belmont's Chaney Distinguished Professor Award
- 2004 Enhancement Award of Vanderbilt University.
- 2003 European Science Foundation (ESF) award for young scientists.
- 2003 Grant award from the Finnish Cultural Foundation.

HONORS AND AWARDS (Continued)

- 2003 Grant award from the University of Kuopio.
- 2001 Center for International Mobility (CIMO) scholarship for young researchers.
- 2000 Aventis/Embassy of France (“Prix de Pharmacie 2000”), International research competition “Prize for Pharmacy”, Certificate of Merit.
- 2000 CIMO scholarship for young researchers.

PROFESSIONAL MEMBERSHIPS

- American Association of Colleges of Pharmacy (AACP)
- American Pharmacists Association (APhA)
- College of Psychiatric and Neurologic Pharmacists (CPNP)
- American Society of Consultant Pharmacists (ASCP)
- The Rho Chi Delta Xi

TEACHING EXPERIENCE

Coordinator/Co-Creator, high-fidelity clinical simulation on unintentional opioid overdose in emergency department for second-year medical students from University of ND and third-year pharmacy students from NDSU, UND Simulation Center, Grand Forks, April 9, 2018.

Interdisciplinary discussion panelist for 2nd year medical students from University of North Dakota (UND) regarding opioid addiction and overdose, UND School of Medicine and Health Sciences, Grand Forks, ND, March 26, 2018.

Instructor, ND Pharmacy-Based Immunization course (PHRM 565), immunization skill check for P2 PharmD students (3 hours), North Dakota State University School of Pharmacy, February 21, 2018.

Course Instructor, Pharmacotherapy Capstone (PHRM 580), Case- and team-based learning sessions on epilepsy and Parkinson’s disease, North Dakota State University School of Pharmacy, Spring 2018.

Course Coordinator, Pharmacy Practice Improvement and Project Management (PHRM 570), North Dakota State University School of Pharmacy, Spring 2018.

Course Coordinator/Instructor (Neurologic and Psychiatric disorders), Pathophysiology II (PHRM 341), North Dakota State University School of Pharmacy, Spring 2018.

Course Instructor, Management of Neurologic and Psychiatric Disorders (PHRM 536), North Dakota State University School of Pharmacy, Fall 2017.

Course Instructor, Pharmacotherapy Capstone (PHRM 580), Case- and team-based learning sessions on epilepsy and Parkinson’s disease, North Dakota State University School of Pharmacy, March 28 & April 11, 2017.

Facilitator, high fidelity simulations on opioid overdose and debriefing sessions, instruction of second year medical students, UND School of Medicine and Health Sciences, Grand Forks, ND, April 5, 2017.

TEACHING EXPERIENCE (Continued)

Panelist on the interdisciplinary panel discussion for 2nd year medical students from University of North Dakota (UND) regarding opioid addiction and overdose, UND School of Medicine and Health Sciences, Grand Forks, ND, March 27, 2017.

Instructor, ND Pharmacy-Based Immunization Delivery Program-Skill Check Section for P2 (PHRM 565) and P3 (PHRM 565) PharmD students (4 hours), North Dakota State University School of Pharmacy, February 16, 2017.

Preceptor, Advanced Professional Practice Experience (APPE) in academia/administration, NDSU School of Pharmacy, Fargo, ND, January-February 2017.

Course Coordinator/Instructor, Pathophysiology II (PHRM 341), Neurologic and Psychiatric disorders, North Dakota State University School of Pharmacy, Spring 2017.

Course Instructor, Management of Neurologic and Psychiatric Disorders (PHRM 536), North Dakota State University School of Pharmacy, Fall 2016.

Course Coordinator/Instructor, Human Pathophysiology II (PHRM 341), Neurologic, Psychiatric, Cardiovascular, and Hematologic Disorders, North Dakota State University School of Pharmacy, Spring 2016.

Course Instructor, Management of Neurologic and Psychiatric Disorders (PHRM 536), North Dakota State University School of Pharmacy, Fall 2015.

Course Instructor, Introduction to Clinical Pharmacology: Clinical Concepts and Applications in Pharmacokinetics, Pharmacodynamics and Pharmacogenomics (3 hr) in Advanced Nursing Pharmacology (NURS 831), NDSU School of Nursing, Nursing Doctorate Program, September 14, 2015.

Instructor, Psychopharmacology (4 h), Northwestern University Feinberg School of Medicine, educational series for neurology residents (PGY2-PGY4), March 13 & 20, 2015.

Educational session for registered nurses on clinical pharmacology of antiepileptic drugs (3 h), Rush University Medical Center, the Epilepsy Center, February 6, 2015

Course Instructor, lecture with problem-based learning: 1) Management of epilepsy in older adults; 2) Management of neuropsychiatric issues in older adults, 3) Management of neuropathic pain, Disease and Medication Therapy Management (DMTM), Chicago State University College of Pharmacy, February 2, 13 & 20, 2015

Course Instructor/Lab Facilitator, Patient Assessment (3 cr.), Chicago State University College of Pharmacy, Spring 2015

Course Coordinator/Instructor, Management of Brain Degenerative Disorders (MS, ALS, dementia/neurocognitive disorders, parkinsonism; & Huntington's disease (2 cr., elective course), Chicago State University College of Pharmacy, Spring 2015

Course Coordinator/Instructor, Drug Action, Structure, and Therapeutics VI - CNS II and Acute Care (4 cr.), Chicago State University College of Pharmacy, Fall 2014

Course Coordinator/Instructor, Drug Action, Structure, and Therapeutics V- Gastrointestinal, Immunological, and CNS I (4 cr.), Chicago State University College of Pharmacy, Fall 2014

Preceptor, Advanced Professional Practice Experience (APPE) in neuropsychiatry, RUMC Epilepsy Center, Chicago, IL, 2013-2015

Preceptor, Research Advanced Professional Practice Experience (APPE) in neuropsychiatry, Chicago State University College of Pharmacy, Chicago, IL, 2013-2015

Preceptor, Professional Practice-VI (IPPE 6), RUMC, RUMC Epilepsy Center, Chicago, IL, 2014-2015

TEACHING EXPERIENCE (Continued)

Facilitator/Instructor in discussion topic titled "Management of Parkinson's Disease: Emphasis on Non-Motor Symptoms", RUMC PGY1 and PGY2 pharmacy residents and P4 pharmacy students, Rush University Medical Center (RUMC), July 18, 2014.

Course instructor, Medicine Case Conference, Advanced Pharmacy Practice Rotation (APPE) modules 6 and 7 in internal/general medicine, Chicago State University College of Pharmacy, Spring 2014

Course Instructor, lectures with clinical workshops: 1) Management of epilepsy in older adults; 2) Management of neuropathic pain, Disease and Medication Therapy Management (DMTM), Chicago State University College of Pharmacy, February 3 & 21, 2014

Course Instructor/Lab Facilitator, Patient Assessment (3 cr.), Chicago State University College of Pharmacy, Spring 2014

Course Coordinator/Instructor, Management of Brain Degenerative Disorders (MS, ALS, dementia/neurocognitive disorders, parkinsonism; & Huntington's disease: 2 cr., elective), Chicago State University College of Pharmacy, Spring 2014

Instructor, Basic Science: Psychopharmacology (4 hrs), Northwestern University Feinberg School of Medicine, Educational series for neurology residents (PGY2-PGY4), January 10 & 17, 2014.

Invited Lecturer, 2-hour session on active- and problem-solving learning in management of depression in patient with cardiovascular problems, Issues in Ambulatory Care (2 cr. Elective), Chicago State University College of Pharmacy, Fall 2014

Course Coordinator/Instructor, Drug Action, Structure, and Therapeutics VI-CNS II and Acute Care (4 cr.), Chicago State University College of Pharmacy, Fall 2013

Course Coordinator/Instructor, Drug Action, Structure, and Therapeutics V-Gastrointestinal, Immunological, and CNS I (4 cr.), Chicago State University College of Pharmacy, Fall 2013

Instructor, Applied Patient Care (APC), APhA Pharmacy-Based Immunization Delivery Program-Skill Check Section, Chicago State University College of Pharmacy, September 10, 2013

Course Instructor, Medicine Case Conference, Advanced Pharmacy Practice Rotation (APPE) modules 5, 6 and 7 in internal/general medicine, Chicago State University College of Pharmacy, Spring 2013

Course Coordinator/Instructor, Management of Brain Degenerative Disorders (MS, ALS, dementia and parkinsonism and Huntington's disease: 2 cr., elective), Chicago State University College of Pharmacy, Spring 2013

Course Instructor/Cases Creator, Disease and Medication Therapy Management (DMTM) II course, Spring 2013

Instructor of S.O.A.P. Note Workshop for P3 pharmacy students, Chicago State University College of Pharmacy, November 2012

Course Coordinator/Instructor, Drug Action, Structure, and Therapeutics VI - CNS II and Acute Care (4 cr.), Chicago State University College of Pharmacy, Fall 2012

Course Instructor, Drug Action, Structure, and Therapeutics V - Gastrointestinal, Immunological, and CNS I (4 cr.), Chicago State University College of Pharmacy, Fall 2012

Instructor, Applied Patient Care (APC), APhA Pharmacy-Based Immunization Delivery Program-Didactic Section: Vaccine Compensation, Marketing, Providing Vaccinations to Patients, Patients Making Decisions, Chicago State University College of Pharmacy, September 4th, 2012

TEACHING EXPERIENCE (Continued)

Instructor, Applied Patient Care (APC), APhA Pharmacy-Based Immunization Delivery Program-Skill Check Section, Chicago State University College of Pharmacy, September 5th, 2012

Instructor, SNaPhA Pharmacy-Based Immunization Delivery Program, the 38th Annual Meeting of the Student National Pharmaceutical Association, certification of 30 national pharmacy students, Atlanta, July 27th, 2011

Lecturer, the series entitled “Bug and Drug: Update and Clinical Cases” (6h), Pathophysiology & Therapeutics IV: (PHM 6340), Belmont University College of Pharmacy, May 2-3, 2011

Lecturer, the series entitled “Geriatric Pharmaceuticals”, (5 h) Belmont University School of Occupational Therapy, graduate program, March 23rd, 2011

Director/Instructor, Advanced Care Management for Patients with Parkinson’s and Alzheimer’s Disease (PHM6990.10, elective, 2 cr.), Belmont University College of Pharmacy, Spring 2011

Director/Instructor, Emerging Infectious Diseases (PHM6990.15, elective, 2 cr.), Belmont University College of Pharmacy, Spring 2011

Director/Instructor, Microbiology and Immunology for Pharmacy (PHM6150, 3 cr.), Belmont University College of Pharmacy, Spring 2009; 2010; 2011

Director/Instructor, Pharmacodynamics 2 – Pharmacological Basis of CNS Therapeutics (PHM6145, 3 cr.), Belmont University College of Pharmacy, Spring 2009; 2010; 2011

Director/Instructor, Introduction to Medical Gerontology and Geriatrics (PHM6990.20, elective, 2 cr.), Belmont University College of Pharmacy, Spring 2010; Fall 2010

Director/Instructor, Pharmacodynamics 3-Antibiotics and Chemotherapeutics (PHM6210, 3 cr.), Belmont University College of Pharmacy, Fall 2009; 2010

Co-Director/Instructor, Pathophysiology & Therapeutics 1-CNS Disorders (PHM6215, 4 cr.), Belmont University College of Pharmacy, Fall 2009; 2010

Director/Instructor, Biochemistry for Pharmacy (PHM6115, 4 cr.), Belmont University College of Pharmacy, Fall 2008; 2009; 2010

Instructor, Pharmacogenomic lecture series for Pharmacodynamics 1 (PHM6110, 3 cr.), Belmont University College of Pharmacy, November 2008; 2009; 2010

Coordinator/Instructor, Web-Based Immunization Training for Pharmacists, certification of 80 pharmacy students and 2 pharmacists/faculty, August 24th, 2010

Coordinator/Instructor, Pharmacy-Based Immunization Delivery Training, certification of 71 pharmacy students and 1 pharmacist/faculty, August 26th, 2009

Co-Instructor, Interprofessional high-fidelity clinical simulation scenarios for patient safety and medication errors, Leadership & Management course, Belmont University College of Pharmacy, November 2007; February 2008; April 2008; November 2008.

Organizer/Guest Lecturer, Functional Genomics Course, University of Kuopio, Kuopio, Finland, April 22-29, 2003. Lecture on Microarray Technology in Comparative Genomics.

Organizer/Lecturer/Laboratory Instructor, Array Week 2003: Microarray Techniques and Applications” and Laboratory “Microarray Techniques and Applications”, Kuopio, Finland, January 27-January 31, 2003. Lecture in Single nucleotide polymorphism (SNP) and DNA arrays for SNPs analysis.

TEACHING EXPERIENCE (Continued)

Organizer/Guest Lecturer, Functional Genomics Course, University of Kuopio, Kuopio, Finland, April 25-May 7, 2002. Lectures in Comparative genomics and Expressed sequence tags (ESTs).

Director/Instructor, Chip Track Laboratory of the NorFA course “Array Week 2002: Microarray Techniques and Applications”, Kuopio, Finland, January 27-February 1, 2002.

Guest Lecturer, Lectures in *C. elegans* and Nonhuman primates and their use in biomedical research (5 h), Model Organisms in Biomedical Research Course, August 21-30, 2002

PROFESSIONAL SERVICE

WOLTERS KLUWER, LEXICOMP

Clinical Specialist/Consultant, Neurology/Psychiatry February 2018-present

PHARMACY, EDITORIAL BOARD

Member 2018-present

BOARD OF PHARMACY SPECIALTIES (BPS)

Specialist Member, Psychiatric Pharmacy Specialty Council 2017-2019

PHARMACY QUALITY ALLIANCE (PQA), MEASURE DEVELOPMENT TEAM (MDT)

Member, PQA MDT 12 (Inappropriate Duplicate Therapy) 2017-2018

AMERICAN SOCIETY OF CONSULTANT PHARMACISTS (ASCP) EDUCATION ADVISORY COUNCIL

Member, Opioid Stewardship Task Force 2018-2019

Member, Educational Affairs Committee 2017-2019

Reviewer of PQA measures “Use of DMT in Relapsing Forms of MS” January 2017

Council Faculty Member 2012-2013

Alumna (Support/Instruction) in the PD Pharmacotherapy Traineeship 2012-present

Scientific Abstract Reviewer 2010-2013

COMMISSION IN CERTIFICATION IN GERIATRIC PHARMACY (CCGP)

Member, the CGP Examination Development Committee 2014-2017

Item Writer, the CGP examination June 2013

Reviewer, the CGP Examination Preparatory Course (Hematology Section) April 2013

NORTH DAKOTA PARKINSON’S DISEASE SUPPORT GROUP

Speaker 2016-2017

BRITISH JOURNAL OF CLINICAL PHARMACOLOGY

Reviewer 2016-present

RUSH GENERATIONS, RUSH UNIVERSITY

Organizer/participant of the “Brown Bag” outreach program for older adults February 2015

THE AMERICAN ACADEMY OF NEUROLOGY (AAN), CONTINUUM: LIFELONG LEARNING IN NEUROLOGY

Member of Editorial Board Member: Pharmacotherapeutics 2013-present

PROFESSIONAL SERVICE (Continued)

COLLEGE OF PSYCHIATRIC AND NEUROLOGIC PHARMACISTS (CPNP)

<i>Program Committee</i>	2018-2019
<i>Student Mentor, CPNP Connect Mentorship program</i>	April 2017
<i>Reviewer, BCPP Review Prep. Course 2018-2019 (Neurocognitive Disorders)</i>	December 2016
<i>Reviewer, BCPP Review Prep. Course 2016-2017 (Neurocognitive Disorders)</i>	November 2015
<i>Manuscript Peer-Reviewer, Mental Health Clinician (MHC)</i>	2013-present
<i>Abstract & Research/Practice Award Reviewer</i>	2012-present

EISAI Inc.

<i>The Perampanel Pharmacy Advisory Board</i>	2014-2015
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AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY (AACP)

<i>CPE Strategic Planning Committee</i>	2014-2015
<i>Scientific Abstract Reviewer</i>	2010-2011
<i>COF Faculty Affairs Committee</i>	2010-2011
<i>House of Delegates</i>	2010-2011

DEPRESSION AND BIPOLAR SUPPORT ALLIANCE (DBSA) FOR GREATER CHICAGO AREA

<i>"Brown-bag" review session organizer for DBSA membership</i>	March 2015
<i>Speaker at support group educational session</i>	June 2013

AMERICAN COLLEGE OF CLINICAL PHARMACY (ACCP)

<i>Tester for PSAP 2018 Book 3 (Neurology/Psychiatry) Module 1</i>	July 2018
<i>Expert Reviewer for PSAP 2015 Book 2 (CNS/Pharmacy Practice).</i>	2014-2015
<i>Tester for ACSAP 2017 Book 2 (Neurologic/Psychiatric Care)</i>	March 2017
<i>Tester for piloted PSAP2013 Handbook (Special Populations Section)</i>	May 2013

NATIONAL ASSOCIATION OF BOARDs OF PHARMACY (NABP), CHICAGO, IL

<i>The Pharmacy Curriculum Outcomes Assessment (PCOA)/FPGEE item writer</i>	2016-present
<i>North American Pharmacist Licensure Examination (NAPLEX) item writer</i>	2014-present
<i>Foreign Pharmacy Graduate Equivalency Examination (FPGEE) item writer</i>	2010

PHARMACY TECH TOPICS™ PUBLISHED, ILLINOIS COUNCIL OF HEALTH-SYSTEM PHARMACISTS

<i>Reviewer of clinical module</i>	May 2013
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ILLINOIS RURAL HEALTH ASSOCIATION (IRHA)

<i>Member, Mental Health Committee</i>	2013-2014
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JONES & BARTLETT LEARNING

<i>Textbook Reviewer</i>	2013
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LAW OFFICE OF BENTON, BENTON & LUEDEKE

<i>Clinical Pharmacy/Clinical Neuropharmacology Consultant</i>	2012-2013
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GRUNDY COUNTY HEALTH DEPARTMENT (PUBLIC HEALTH EMERGENCY PROGRAM)

<i>Pharmacist for Emergency Response Program</i>	2012-2013
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PROFESSIONAL SERVICE (Continued)

STUDENTS NATIONAL PHARMACEUTICAL ASSOCIATION (SNaPhA)

Immunization Trainer, 38th Annual SNaPhA Meeting, Atlanta, GA July 2011

PICTURE RX

Clinical Pharmacy/Clinical Pharmacology Consultant 2010-2012

LAW OFFICE OF ARNZEN, MOLLOY & STORM, P.S.

Clinical Pharmacy/Clinical Neuropharmacology Consultant 2009–2012

VANDERBILT UNIVERSITY MEDICAL CENTER

Member of Medication Use that is Safe and Effective (MUSE) Group 2009-2011

TENNESSEE POISON CENTER, VANDERBILT UNIVERSITY, NASHVILLE, TN

Community Advisory Board Member 2008–2011

NATIONAL PARKINSON'S DISEASE ASSOCIATION, MIDDLE TN CHAPTER, NASHVILLE, TN

Board Member 2005–2006

UNIVERSITY SERVICE

NORTH DAKOTA STATE UNIVERSITY, SCHOOL OF PHARMACY: 2015-present

- School of Pharmacy Executive / Leadership Council 2018-present
- Co-Curriculum Task Force, Pharmacotherapy Lab (new course/lab) 2018
- Faculty Ambassador, College Graduation 2017
- Residency (PGY-1 NDSU / Lake Region) Advisory Council (RAC) 2016- present
- SOP Curricular Task Force, Disease state alignment and coverage 2016-2017
- Concept Laboratory Task Force 2016
- Progress and Interim ACPE report task force 2015-present
- Chair of the Department of Pharmacy Practice 2015-present
- College of Health Professions Administrative Council 2015-present
- Curriculum Committee 2015-present
- ACPE 2016 Standards working group 2015-present
- Continuing Professional Education (CPE) Committee 2015-present
- Academic Students Advisor (P1-P4) 2015-present

UNIVERSITY SERVICE (Continued)

CHICAGO STATE UNIVERSITY COLLEGE OF PHARMACY: 2012-present

- Chair, Student's Grievance Committee, September 2013-2015
- Department Personnel Committee (DPC), Pharmacy Practice, September 2013-2015
- DPC promotion sub-committee 2013
- Program, Measurement, and Effectiveness (PME) *ad hoc* Committee for Pharmacy Practice Department, 2012-2014
- Search Committee for the Office of Experiential Education, Experiential Education Program Specialist, May 2013-August 2013
- Co-Chair, Marketing and Development Committee, September 2012-2015
- Search Committee for faculty in the Department of Pharmaceutical and Pharmacy Practice Departments, 2012-2015
- Continuing Pharmacy Educational Program Committee, 2012-2013
- Faculty and Staff Development Committee, 2012-2013
- Academic student advisor (P1-P4), 2012-2015

MIDWAY COLLEGE SCHOOL OF PHARMACY (MCSOP): 2011-2012

- Midway College Faculty Curriculum Committee, 2011-2012
- Social Event Committee, 2011-2012
- Faculty Development Committee, 2011-2012
- Practice Standards Committee, 2011-2012
- Research Advisory Council, 2011-2012
- Substance Abuse and Misuse in Rural Area (SAMiRA) Group, 2011-2012
- Curriculum development
- Course coordinator of various clinical and integrated courses
- Bridging general sciences with clinical sciences and practice
- Faculty mentor

BELMONT UNIVERSITY COLLEGE OF PHARMACY (BUCOP): 2007-2011

- Immunizer and student's immunization advisor for "Flu Shot" clinics organized for Belmont University and Skyline Medical Center, 2009-2011
- Representative for School of Pharmacy, Belmont University Faculty Senate, 2010-2011
- Belmont University College of Pharmacy delegate at AACP House of Delegates, 2010-2011
- Faculty mentor for new clinical and pharmaceutical sciences faculty, 2009-2011
- Coordinator & Instructor: Web-Based Immunization Delivery for Pharmacists (Drug Store News), August 2011
- External Advisory Board for Pharmacotherapy Curricular Concentration, 2010-2011

UNIVERSITY SERVICE (Continued)

- Pharmacy Practice Faculty Search Committee, 2010
- Pharmacy Manager Search Committee, 2009
- Coordinator & Co-instructor: Pharmacy-Based Immunization Delivery Training, August 2009
- Curricular Subcommittee for Pathophysiology and Pharmacotherapy course series, 2009
- Design and maintenance of BUSOP professional website to fulfill requirements for AACP accreditation and AACP annual visit, 2009
- School of Pharmacy website management, 2009-2010
- Designer of simulation suites for new School of Pharmacy building, 2009
- Department of Pharmacy Practice Search Committee, 2008-2009
- Student's Affair Committee, 2008-2010
- Curricular Committee, 2008-2009
- College of Health Sciences Interdisciplinary Simulation Committee, 2008-2011
- Technical Services and Resources Committee, 2008-2011
- Student academic advisor (11 PharmD students), 2008-2011
- Admissions Committee, 2008-2009
- Experiential Education Advisors Committee, 2008-2009
- Department of Pharmaceutical Sciences Search Committee, 2008-2010
- Students Interviews for entering PharmD professional program, 2008-2011

RESEARCH AND TEACHING FUNDING

PI and Coordinator of “Interprofessional Education between Pharmacy (NDSU) and Medical (UND) Learners”

- CHP funding (2019): \$3,520

Recipient, RCA NDSU Internal Funding

- Research Development Travel Award (2017): \$1,416

PI, “Targeted Education in Dementia Care for ND Pharmacists”

- ND Board of Pharmacy (2017-2018): \$3,785.

Principal Investigator (PI), “Pharmacist-Led Community-Based Educational, Screening and Service Initiative for Stroke/TIA Risk Identification, Prevention and Care-Seeking in Eastern North Dakota”.

- Dakota Medical Foundation (2017-2018): \$9,000

Principal Investigator (PI), “The 12-Week Prospective Interventional Study of Cognitive and Motor Benefits of Integrated Listening System (iLs) in Adult Ambulatory Parkinson’s Disease Patients: A Pilot Study”

- Integrated Listening System (iLs) funding (2017-2019): \$14,000

Principal Investigator (PI), “Caring For Our Aging Population: Assessment of CPE in Chronic Disease Management Among Community Pharmacists in the Upper Midwest.”,

- NABP/AACP 2016 District V grant (2016-2017): \$3,000
- Data received from 1400 pharmacists in District V states are currently analyzed

Principal Investigator (PI), “Pharmacist-Led Community-Based Educational, Screening and Service Initiative for Stroke/TIA Risk Identification, Prevention and Care-Seeking in Fargo, North Dakota”.

- NDSU CHP Clinical/Translational Research Seed Grant (2016-2017): \$2,500
- Two large educational/screening sessions in Olivet Church and First Lutheran Church, Fargo, ND: 97 individuals (≥ 40 years) educated in stroke/TIA prevention and recognition, and screened for stroke risks, and missing primary or secondary stroke prevention.

Teaching enrichment funds for durable equipment from a competitive NDSU Provost’s Office call

- NDSU Provost Office (2015-2016): \$52,857.60

Co-Principal Investigator, “Jazz and Health: A Targeted Health Promotion Strategy to Educate Underserved Populations”

- 2012 NACDS Foundation, Community Health Fair Outreach (2012): \$1,000

Principal investigator (PI), “Exploring DA Neurodegeneration and Neuroprotection In *C. elegans* Models of Parkinson’s Disease”

- National Parkinson Foundation International Research Grant (2005-2006): \$32,000

PEER-REVIEWED PUBLICATIONS

Marvanova M, Henkel PJ, Allen J. Implementation and Assessment of High-Fidelity Interprofessional Simulation between Pharmacy and Medical Students on Unintentional Opioid Overdose in Emergency Care Setting. [Manuscript in preparation for the *Journal of American Pharmaceutical Education*; submission planned for November 2018]

Henkel PJ, **Marvanova M**. Utilization of the Information Sources on Population and Community Needs by Rural Pharmacists in the Upper Midwest. [Manuscript under review in *the Journal of Rural Health*; submitted on August 19, 2018]

Marvanova M, Henkel PJ. CE. Continuing Pharmacy Education Practices in Geriatric Care Among Pharmacists in the Upper Midwest. [Manuscript under review in *the Journal of American Pharmacists Association*; submitted on August 14, 2018]

Henkel PJ, **Marvanova M**. Basic Disaster Preparedness of Rural Community Pharmacists in Five States [Manuscript under review in the *Disaster Medicine and Public Health Preparedness*; June 25, 2018]

Werremeyer A, Skoy E, **Marvanova M**, Jarajapu Y, Brynjulson R, Wilhelm R, Eukel H. A PharmD Program Curricular Approach to Addressing the Opioid Crisis. [Revision 1 under review in *Currents in Pharmacy Teaching and Learning*; submitted on September 21, 2018]

Marvanova M. Perampanel-Induced, New-Onset Food Aversion in a 29-Year-Old Female with Medically Refractory Frontal Lobe Epilepsy. [Revision 1 under review in *Mental Health Clinician*; submitted on September 12, 2018]

Marvanova M, Henkel PJ. Design, Implementation and Impact Assessment of the Community-based Stroke Education and Screening Program for Community-Dwelling Older Adults. [Manuscript accepted on September 21, 2018]. *Consult Pharm*. 2018.

Marvanova M, Henkel PJ. Design, Implementation, and Evaluation of a Workshop in Management of Alzheimer's and Parkinson's Disease for the 3rd Year Pharmacy Students [Accepted February, 2018]. *Currents in Pharmacy Teaching and Learning* 2018; 10(8).

Marvanova M, Gramith K. Role of antidepressants in the treatment of adults with anorexia nervosa. *Ment Health Clin* [Internet]. 2018;8(3):127-37.

Henkel PJ, **Marvanova M**. Maintaining Vitality: Pharmacists' Continuing Professional Education Decision-Making in the Upper Midwest. Special Issue entitled the Labor Market for Pharmacists. *Pharmacy* 2018; 6(1). pii: E14. doi: 10.3390/pharmacy6010014.

Henkel PJ, **Marvanova M**. Community Pharmacy-Based Health Services Disparities in Rural Communities. *Journal of Rural Health* 2018, 34:347-358.

Sunkaraneni S, Blum D, Ludwig E, Chudasama V, Fiedler-Kelly J, **Marvanova M**, Bainbridge J, Phillips L. Population Pharmacokinetic Evaluation and Missed Dose Simulations for Eslicarbazepine Acetate Monotherapy in Patients With Partial Onset Seizures. *Clinical Pharmacology in Drug Development* 2017. DOI: 10.1002/cpdd.382. [Epub ahead of print]

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Marvanova M, Henkel PJ. Community Pharmacists' Knowledge of Alzheimer's Disease Care in High- and Low-Income Chicago. *J Am Pharm Assoc*. 2017;57(5):596-600.

Marvanova M, Henkel PJ. Collaborating on Medication Errors in Nursing. *The Clinical Teacher* 2017; 14:1-6.

PEER-REVIEWED PUBLICATIONS (Continued)

- Marvanova M.** Introduction to Parkinson Disease (PD) and its Complications. *Mental Health Clinician* 2016; 6(5):229-235.
- Marvanova M.** Current & Emerging Therapies & Strategies in the Management of Epilepsy. Peer-reviewed CE module (0.3 CEUs) for pharmacists and nurses, *Specialty Pharma Education Center*, published online on April 2016. Available at <http://spec.learnercommunity.com/products/4063/current-emerging-therapies-strategies-in-the-management-of-epilepsy>
- Marvanova M.** Drug-Induced Cognitive Impairment: Effect of Cardiovascular Agents. *Mental Health Clinician* 2016; 6(4):201-206.
- Marvanova M.** Pharmacokinetics of Antiepileptic Drugs (AEDs). *Mental Health Clinician* 2016; 6(1):8-20.
- Marvanova M.** Treatment of Multiple Sclerosis (MS): A Case-Based Approach, Geriatric Pharmacy Review: Advanced Case Study. Peer-reviewed CGP-Recertification CE module (0.25 CEUs), *American Association of Consultant Pharmacists*, published online on September 5, 2015. Available at http://learning.ascp.com/diweb/catalog/item/id/1316512/sid/27648833/q/q=multiple*20sclerosis&c=306
- Peterson J, Kripalani S, Danciu I, Harrell D, **Marvanova M**, Rodriguez C, Powers J. Electronic Surveillance and Pharmacist Intervention for Vulnerable Hospitalized Geriatric Inpatients on High-Risk Medication Regimens. *J Am Geriatr Soc.* 2014; 62(11):2148-2152.
- Marvanova M.** Antipsychotic Use in Patient with Dementia: Efficacy and Safety Concerns. *Mental Health Clinician* 2014; 4(4):170-176.
- Marvanova M.** Managing Multiple Sclerosis and Its Symptoms. *Pharmacy Tech TopicsTM* 2013; 18(4).
- Marvanova M.** Management of Second-Generation Antipsychotic-Induced Metabolic Side Effects. *Mental Health Clinician* 2013; 3(3):154-161.
- Johnson KA, Jones CK, Tantawy MN, Bubser M, **Marvanova M**, Baldwin RM, Conn PJ, Niswender CM. The metabotropic glutamate receptor 8 agonist (S)-3,4-DCPG reverses motor deficits in prolonged but not acute models of Parkinson's disease. *Neuropharmacology* 2013; 66:187-195.
- Marvanova M.**, Roumie Ch., Eden S., Cawthon C., Schnipper J., Kripalani S. Health literacy and medication understanding among hospitalized adults. *J Hosp Med.* 2011; 6(9):487.
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- Marvanova, M**, Nichols C. Identification of neuroprotective compounds of *C. elegans* dopaminergic neurons against 6-OHDA. *J Mol Neurosci.* 2007; 31(2):33-44.
- Marvanova M**, Lakso M, Wong G. Identification of Genes Regulated by Memantine and MK-801 in Adult Rat Brain by cDNA Microarray Analysis. *Neuropsychopharmacology* 2004; 29(6):1070-1079.
- Marvanova M.** Genomic Approaches to Access the Effects of Neuroprotective Drugs and Validity of Nonhuman Primate Models in Neurodegenerative Diseases. Doctoral dissertation. 2003. *Kuopio University Publications* G. A.I. Virtanen Institute for Molecular Sciences 11. 104 p., append.
- Marvanova M**, Storvik M, Wong G. Microarray data analysis - applications for studies on gene expression in addiction and human/nonhuman primates. In: Kotila S, Haataja J, Forsström P-L, Ignatius J, Jukka L, Laine MM, Runeberg N, Råback P, Savolainen V, eds. *CSC Report on Scientific Computing 2001-2003*, p. 151-154. [Espoo]: *CSC-Scientific Computing*, 2003
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PEER-REVIEWED PUBLICATIONS (Continued)

Marvanova M, Ménager J, Bezard E, Bontrop R, Pradier L, Wong G. Microarray analysis of nonhuman primates: validation of experimental models in neurological disorders. *FASEB J* 2003; 17(8): 929-931.

Törönen P, Storvik M, Lindén AM, Kontkanen O, **Marvanova M**, Lakso M, Castrén E, Wong G. Expression profiling to understand actions of NMDA/glutamate receptor antagonists in rat brain. *Neurochem Res.* 2002; 27(10):1209-1220.

Marvanova M, Törönen P, Storvik M, Lakso M, Castrén E, Wong G. Synexpression analysis of ESTs in the rat brain reveals distinct patterns and potential drug targets. *Brain Res Mol Brain Res.* 2002; 104(2):176-183.

Marvanova M, Lakso M, Pirhonen J, Nawa H, Wong G, Castrén E. The neuroprotective agent memantine induces brain-derived neurotrophic factor (BDNF) and trkB receptor expression in rat brain. *Mol Cell Neurosci* 2001; 18(3):247-258.

NON-PEER-REVIEWED ARTICLES

Marvanova M. The H1N1 “Swine” Flu: What is it? Can We Treat It? *Inquire* 2009; 2(4).

Marvanova M. Pharmacogenetics: Potential Basis for Variable Patient Response to Selective Serotonin Reuptake Inhibitors (SSRIs). *Inquire* 2008; 1(2).

PUBLISHED SCIENTIFIC PEER-REVIEWED CONFERENCE PAPERS AND ABSTRACTS

Marvanova M, Henkel PJ. Benefits of Structured Interactive Workshop in Alzheimer's and Parkinson Disease as an Add-on to Didactic Lectures for Pharmacy Third-Year Students. [Abstract]. *Pharmacotherapy* 2018; 38(6).

Henkel PJ, **Marvanova M**. Continuing Professional Education Practices Related to Older Adults Among Community and Hospital/Clinic-based Pharmacists in the Upper Midwest. [Abstract]. *Pharmacotherapy* 2018; 38(6).

Henkel PJ, **Marvanova M**. Continuing Professional Education Selection Criteria for Hospital and Clinic-based Pharmacists Practicing in the Upper Midwest. [Abstract]. *Pharmacotherapy* 2018; 38(6).

Marvanova M, Henkel PJ. Differences in Blood Pressure Reading Assessments based on JNC8 and New 2017 Blood Pressure Guideline among Community-Dwelling Adults in Fargo, North Dakota. [Abstract]. *Pharmacotherapy* 2018; 38(6).

Marvanova M, Henkel PJ. Continuing Professional Education Practices of Community and Hospital/Clinic Pharmacists in the Upper Midwest: Professional Specialization, Population-Driven Self Education, or Something Else? [Abstract]. *Journal of the American Pharmacists Association* 2018 (May/June issue 2018).

Marvanova M, Henkel PJ. Pharmacist-Led Community Stroke Education and Screening Program. [Abstract]. *Journal of the American Pharmacists Association* 2018 (May/June issue 2018).

Marvanova M, Henkel PJ. Pharmacist-Led Community-Based Stroke Program to Identify Individuals in Need of Intervention to Decrease Stroke Risk. *The Consultant Pharmacists* 2017; 32(10).

Marvanova M, Henkel PJ. Impact of Pharmacist-Led Community-Based Stroke Education Program on Participants' Knowledge of Major Modifiable Stroke Risk Factors and Acute/Warning Signs of Stroke. *The Consultant Pharmacists* 2017; 32(10).

Marvanova M, Khan A. Can Use of the Standard and Revised Winter-Tozer Formula Accurately Predict Free Phenytoin Concentrations in Non-Critically Ill Hospitalized Patients? [Abstract]. *Pharmacotherapy* 2017; 37(6).

Marvanova M, Henkel PJ. Association of Terminal Pharmacy Degree on Community Pharmacists' Counseling on Common Adverse Effects of Donepezil in Predominantly Rural Areas of the U.S. [Abstract]. *The Journal of Pharmacy Practice* 2017; 6.

Marvanova M. Dose-dependent Perampanel-induced Food Aversion in a Young Female with Frontal Lobe Epilepsy: A Case Report. [Abstract]. *The Journal of Pharmacy Practice* 2017; 6.

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Marvanova M, Kianirad Y. Risk for Medication Errors in Parkinson's Disease (PD) Patients during Hospitalization. [Abstract]. *The Consultant Pharmacist* 2016; 31(10):572.

Marvanova M, Henkel PJ. Ability of Community Pharmacists in Rural Areas across the U.S. to Provide Pharmacy-Related Care to Alzheimer's Disease. [Conference Paper]. *Journal of the American Pharmacists Association* 2016; 56(3):217-348, e1-e141.

Marvanova M, Henkel PJ. Are Rural Community Pharmacies Effectively Serving Community Dwelling Elderly with Alzheimer's Disease in the U.S.? [Abstract]. *American Journal of Pharmaceutical Education* 2015; 79(5).

Kianirad Y, **Marvanova M**. Medications Reconciliation in Hospitalized Parkinson's Disease Patients. [Abstract]. *Movement Disorders* 2015; 30 Suppl 1:249.

**PUBLISHED SCIENTIFIC PEER-REVIEWED CONFERENCE PAPERS AND ABSTRACTS
(Continued)**

Marvanova M, Henkel PJ, Ondimu D, Meskelu H. Community Pharmacists and Alzheimer's Disease Pharmaceutical Care in Chicago. [Abstract]. *American Journal of Pharmaceutical Education* 2014; 78(5).

Marvanova M, Henkel PJ, Nakitende B, Andriopoulos A. Graduate Pharmacy Education's Association with Improved Health Knowledge and Health Behavior among Students of African Descent. [Abstract]. *American Journal of Pharmaceutical Education* 2014; 78(5).

Marvanova M, Peterson J, Kripalani S, Danciu I, Harrell D, Rodriguez C, Powers J. Design and Implementation of a High-Risk Medication Decision Support System for Hospitalized Geriatric Patients. *Pharmacotherapy* 2013; 33(5):e50-e80.

Marvanova M., Peterson J., Kripalani S., Danciu I., Harrell D., Rodriguez C., Powers J. Potentially Inappropriate Medications Dashboard: Real-Time Surveillance for High-Risk Medication Prescribing and Management in Vulnerable Geriatric Inpatients. [Abstract]. *American Journal of Pharmaceutical Education* 2013; 77(5).

Rodriguez C, Peterson J, Kripalani S, Danciu L, Harrell D, **Marvanova M**, Powers J. Surveillance and Pharmacist Intervention for Vulnerable Hospitalized Geriatric Patients on Highrisk Medication Regimens. [Abstract]. *Journal of Hospital Medicine* 2012;7 Suppl 2:209.

Marvanova M, Roumie CL, Eden S, Cawthon C, Schnipper JL, Kripalani S. Health Literacy and other Factors Associated with Patients' Understanding of their Pre-Admission Medication Regimen. [Abstract]. *American Journal of Pharmaceutical Education* 2010; 74(5).

Marvanova M., Henkel PJ. The Role and Effectiveness of Virtual Laboratory Exercises as a Pharmaceutical Sciences Learning Tool. [Abstract]. *American Journal of Pharmaceutical Education* 2010; 74(5).

Johnson KA, Jones CK, **Marvanova M**, Thompson AD, Tantawy MN, Baldwin RM, Conn PJ. (S)-3,4-DCPG has antiparkinsonian effects in chronic models of Parkinson's disease [Abstract]. *Neuropharmacology* 2008; 55:585-638.

Marvanova M, Jones CK, Conn PJ. Study of gene expression and modulation of group III metabotropic glutamate receptors (mGluRs) in the basal ganglia of normal and parkinsonian rodents: Investigation of potential drug targets to treat Parkinson s disease. [Abstract]. *Movement Disorders* 2005; 21(Suppl. 13):S52-S159.

Marvanova M, Nichols C, Wong G, Nass R. Pharmacogenetic analysis in a novel model of Parkinson's disease: Identification of genetic and chemical modulators of dopamine neuron degeneration in *C. elegans*. [Abstract]. *IDrugs* 2005; 7(12):1070-1073.

Marvanova M, Lakso M, Wong G, Castrén E. Effect of Memantine on Brain-Derived Neurotrophic Factor (BDNF) Level in Adult Rat Brain. [Abstract]. *Parkinsonism and Related Disorders* 2001;7(supplement).

Marvanova M, Lakso M, Wong G, Castrén E. Effect of Memantine on Brain-Derived Neurotrophic Factor (BDNF) Level in Adult Rat Brain. [Abstract]. *Eur J Pharm Sci.* 2001 Jun;13 Suppl 2:S1-48.

PODIUM PRESENTATIONS

Clinical/Educational Presentations:

Presentation (0.1 CEU) entitled “Patient-Centered Care for Major Depression”, ASCP Annual meeting, Dallas, Prince Georges, Maryland, November 4, 2018

Workshop (0.5 CEUs) entitled “Targeted Education in Dementia Care for Pharmacists”, NDSU School of Nursing Sanford Health, Bismarck, ND, September 22, 2018

Presentation entitled “Common Pitfalls: ACPE Accreditation Standards 2016”, Kick off Self-Study workshop and retreat, NDSU School of Pharmacy, August 20, 2018

Workshop (0.2 CEUs) entitled “Patient-Centered Pain Management in Primary Care 101”, the 71st Annual National Convention of National Pharmaceutical Association (NPhA), Charlotte NC, July 29, 2018.

Workshop (0.5 CEUs) entitled “Targeted Education in Dementia Care for Pharmacists”, NDSU School of Pharmacy, Fargo, ND, June 16, 2018

Workshop (0.5 CEUs) entitled “Targeted Education in Dementia Care for Pharmacists”, NDSU School of Pharmacy, Fargo, ND, June 9, 2018

Presentation (0.1 CEU) entitled “The Top 10: Clinical Pearls in Dementia Care and Counseling for Pharmacists”, The 133rd North Dakota Annual Pharmacy Convention of the North Dakota Pharmacists Association, Fargo, ND, April 24, 2018.

Presentation, “Business Card Rx”. Phi Lambda Sigma Etiquette Dinner, NDSU School of Pharmacy, Fargo, ND, April 12, 2018.

Presentation (0.1 CEU) entitled “Cognitive Enhancers in the Treatment of Irreversible Dementias”, ASCP Annual meeting, Kissimmee. FL, November 3, 2017.

Presentation entitled “Secondary Stroke Prevention: Why Do I Need to Take Medications?” Sanford Health Stroke Awareness Conference for Stroke Survivors “The Next Chapter: Helping Stroke Survivors to Move Forward”, Fargo, ND, October 12, 2017.

Presentation (0.1 CEU) entitled “Opioid-induced Respiratory Depression (OIRD) and Naloxone Use”, the 70th Annual National Convention of National Pharmaceutical Association (NPhA), Las Vegas, NV, July 31, 2017.

CGP-recertification Presentation (0.1 CEU) entitled “Psychiatric Complications of Idiopathic Parkinson’s Disease: Management of Psychosis and Impulse Control Disorders”, ASCP Annual meeting, Dallas, TX, November 16, 2016.

Presentation and workshop entitled “Me, You and Accreditation: Coding Assessment Questions using Blooms Taxonomy”, NDSU School of Pharmacy retreat, North Dakota State University, Fargo, ND, August 18, 2016.

Presentation (0.1 CEU) entitled “Use of Antiepileptic Drugs (AEDs) for Non-epileptic CNS Conditions”, the 69th Annual National Convention of National Pharmaceutical Association (NPhA), Atlanta, GA, July 31, 2016.

Presentation (0.1 CEU) entitled “Management of Relapsing-Remitting Multiple Sclerosis”, the 69th Annual National Convention of National Pharmaceutical Association (NPhA), Atlanta, GA, August 1, 2016.

Key Address entitled “Life-long Learning as Duty, Responsibility and Passion”, The Rho Chi society new member induction ceremony, North Dakota State University Memorial Union, March 22, 2016.

Presentation (0.1 CEU) entitled” Dementia with Lewy Bodies: What Is It and How Is it Clinically Managed”, the 68th Annual NPhA, Orlando, FL, July 26, 2015.

Clinical/Educational Presentations (Continued)

Key note speech entitled "Medications: The Tip of the Recovery Iceberg: What Should I Know about Psychotropic Medications?", Depression and Bipolar Support Alliance (DBSA) of Greater Chicago Area Education Symposium, Evanston Hospital, Evanston, IL, May 2, 2015.

Seminar entitled "Carbamazepine, Oxcarbazepine, Eslicarbazepine Acetate: What Do They Share? How Do They Differ?" Northwestern University, Department of Neurology, the Epilepsy Center, February 17, 2015.

Education session & seminar for nursing staff, entitled "Antiepileptic Medications: Pharmacology, Monitoring and Patient/Family Education", RUMC Epilepsy Clinic, February 6, 2015.

Presentation (0.1 CEU) entitled "The Other Face of Parkinson's Disease: Management of Non-Motor Symptoms", the 67th Annual NPhA, Arlington, VA, July 21, 2014.

Education session entitled "Psychotropic Medications: What Do I need to Know?", Depression and Bipolar Support Alliance-Greater Chicago Area, Chicago, June 9, 2014.

Clinical training for neurology practitioners entitled "Clinical Update on Aptiom (Eslicarbazepine Acetate)", Rush University Medical Center, Epilepsy Center, May 13, 2014

Education session entitled "Seizure Triggers: Emphasis on Medications and Nutraceuticals", Patient Epilepsy Support Group, Rush University Medical Center, Epilepsy Center, June 4, 2014.

Education session entitled "Brand Name and Generic Medications in Epilepsy: What You Should Need to Know", Patient Epilepsy Support Group, Rush University Medical Center, Epilepsy Center, May 6, 2014.

Clinical training for neurology practitioners entitled "Clinical Update on Fycompa (Perampanel)", Rush University Medical Center, Epilepsy Center, January 7, 2014.

Presentation (0.1 CEU) entitled "A Clinical Primer on Antidepressants: SSRIs, SNRIs and Bupropion", IRHA Annual Educational Conference, Effingham, IL, August 22-23, 2013.

Presentation (0.1 CEU) entitled "Clinical Pharmacology of Second-Generation Antipsychotics (SGAs)", IRHA Annual Educational Conference, Effingham, IL, August 22-23, 2013.

Presentation (0.1 CEU) entitled "Antipsychotic Drug Use in Dementia: Issues and Practice", the 66th Annual NPhA, New Orleans, July 29, 2013.

Presentation (0.1 CEU) entitled "Antipsychotic Use in Older Adults", the 24th Annual Midwest Regional ASCP Conference, Chicago, Oakbrook Hill Marriott, July 21, 2012.

Seminar entitled "Framing Faculty Professional Development for Academic and Institutional Excellence", University of Maryland Eastern Shore, School of Pharmacy and Health Professions, April 10, 2012.

Seminar entitled "Clinical Issues and Challenges in the Management of Parkinson's Disease", Husson University School of Pharmacy, February 23, 2012.

Seminar entitled "Pharmacotherapeutic Management of Major Depressive Disorder", Chicago State University College of Pharmacy, February 1, 2012.

Seminar entitled "Are All SSRIs the Same? A Pharmacological Profile of SSRIs", Edward Via College of Osteopathic Medicine, January 30, 2012.

Seminar entitled "Incorporating Women's Health into Pharmacy Curriculum", Faculty Development Series, Midway College School of Pharmacy, October 13, 2011.

Clinical/Educational Presentations (Continued)

Presentation (0.1 CEU) entitled “Clinical Issues and Challenges in Treatment of Advanced Stage of Parkinson’s Disease: Inpatient Care “Therapeutic Exchange Series for Clinical Pharmacists”, Vanderbilt University Medical Center, February 17, 2011.

Research Presentations:

Presentation entitled “Advancing ND Pharmacy Profession through Grants “, NDSU School of Pharmacy Advisory Board meeting, NDSU Memorial Union, April 19, 2018

Presentation entitled “Assessment of CPE in Chronic Disease Management among Community Pharmacists in the Upper Midwest”, the Annual Meeting of NABP/AACP District Five, West Des Moines, Iowa, August 5, 2017.

APhA-APRS ESAS Podium Session entitled “Ability of Community Pharmacists in Rural Areas across the U.S. to Provide Pharmacy-Related Care to Alzheimer’s Disease”, American Pharmacists Association (APhA) Annual Meeting and Exposition, Baltimore, MD, March 4, 2016.

Presentation entitled “Qualitative Analysis of Medication Understanding: Analysis of Most Common Incidences in Medications for Cardiovascular Disorders and Comorbidity”, Vanderbilt University, Center for Health Services Research February 2010.

Presentation for P1 Pharm.D. students entitled “*C. elegans* in Neuropharmacology”, Belmont University College of Pharmacy, Nashville, TN, May 2009.

Presentation entitled “Study of Group III Metabotropic Glutamate Receptors (mGluRs) in the Basal Ganglia of Rodent Animal Models of Parkinson’s Disease”, Vanderbilt University, Department of Pharmacology, Nashville, TN, June, 2006.

Seminar entitled “Study of Group III Metabotropic Glutamate Receptors (mGluRs) in the Striatum (CPu) of Healthy and Parkinsonian Rodents: Investigation of Potential Drug Targets to Treat Parkinson’s Disease”, Vanderbilt University, Department of Pharmacology, Nashville, TN, November, 2005.

Presentation entitled “A *C. elegans* Model of Parkinson’s Disease: Identification and Evaluation of Molecules and Pathways that Protect against DA Neuron Degeneration”, Vanderbilt University, Department of Anesthesiology, Nashville, TN, May, 2005.

Presentation entitled “Pharmacogenetic Analysis in a Novel Model of Parkinson's Disease: Identification of Genetic and Chemical Modulators of Dopamine Neuron Degeneration in *C. elegans*”, West Chester University of Pennsylvania, Department of Biology, West Chester, PA, February 2005.

Presentation entitled “Exploring DA Neurodegeneration in *C. elegans*: Generation of Novel Models of Parkinson’s Disease”, University of the Sciences in Philadelphia, Department of Biology, Philadelphia, PA, February 2005.

Presentation entitled: “Exploring the Role of Alpha-synuclein, Parkin, and the Dopamine Transporter in DA Neuron Degeneration in *C. elegans* Models of Parkinson's Disease”, the West Coast Worm Meeting Santa Barbara, CA, August 21- 24, 2004.

Presentation entitled “*C. elegans* as an Animal Models to Study Parkinson’s Disease”, Vanderbilt University, Department of Anesthesiology, Nashville, TN, June, 2004.

Presentation entitled “DNA Microarray Technology in Neurobiology”, the Institute of Entomology of Academy of Sciences, Ceske Budejovice, Czech Republic, May 12, 2003.

Presentation entitled “Microarray Analysis of Nonhuman Primates: Validation of Experimental Models in Neurological Disorders”, the 8th Annual A.I. Virtanen Institute Post-Graduate Symposium Hotel Tahkovo, Niisä, Finland, March 17-18, 2003.

Research Presentations (Continued):

Presentation entitled “Affymetrix Microarrays as a Platform for Cross-Species Gene Expression”, Molecular Biology Seminar, University of Kuopio, Finland, November 11, 2003.

Presentation entitled “Function Genomics and Bioinformatics Tools to Investigate Genes Involved in Effect of Non-competitive NMDA Receptor Antagonists”, the International practical course, “APEX on DNA Microarrays: Applications in SNP Analysis, Mutation Detection and DNA Resequencing” Tartu, Estonia, August 26-September 1, 2002.

Presentation entitled “Comparative Genomic Analysis of Nonhuman Primates: Validation of Experimental Models in Neurological Disorders”, the International Summer School “From Genome to Life”, Cargèse, Corsica, July 15-27, 2002.

Presentation entitled “Synexpression Analysis of ESTs in the Rat Brain Reveals Distinct Patterns and Potential Drug Targets”, the International Summer School “From Genome to Life”, Cargèse, Corsica, July 15-27, 2002.

Presentation entitled “Synexpression Analysis of ESTs in the Rat Brain Reveals Potential Drug Targets”, the 7th Annual A.I. Virtanen Institute Post-Graduate Symposium Hotel Tahkovouri, Nilsjä, Finland, February 12-13, 2002.

Presentation entitled “Qualitative Analysis Presentation entitled “Involvement of BDNF and TrkB Receptor Isoforms in the Pharmacological Actions of Memantine”, the 6th Annual A.I. Virtanen Institute Post-Graduate Symposium. Nilsjä, Finland, February 22, 2001.

PEER-REVIEWED SCIENTIFIC POSTER PRESENTATIONS

Thompson J, Dewey M, Friesner D, **Marvanova M.** Pharmacist Conducted Medication Regimen Review for Patients Returning to Independent Living Following Skilled Nursing Facility Stay. 49th Annual ASCP Meeting and Exhibition, the Gaylord National Harbor in National Harbor, Maryland, November 1-4, 2018.

Marvanova M, Henkel PJ. Assessment of Continuing Education Decision-Making, Providers Selection, and Select Topic Credit Hours among Community Pharmacists in the Upper Midwest. 49th Annual ASCP Meeting and Exhibition, the Gaylord National Harbor in National Harbor, Maryland, November 1-4, 2018.

Marvanova M, Henkel PJ. Benefits of Structured Interactive Workshop in Alzheimer’s and Parkinson Disease as an Add-on to Didactic Lectures for Pharmacy Third-Year Students. Encore poster presentation, The 2018 ACCP Global Conference on Clinical Pharmacy, Seattle, WA, October 20-23, 2018

Marvanova M, Henkel PJ. Benefits of Structured Interactive Workshop in Alzheimer’s and Parkinson Disease as an Add-on to Didactic Lectures for Pharmacy Third-Year Students. 2018 Virtual Poster Symposium (3rd place of best original research). 2018 ACCP Virtual Poster Symposium, May 24, 2018.

Henkel PJ., **Marvanova M.** Continuing Professional Education Practices Related to Older Adults Among Community and Hospital/Clinic-based Pharmacists in the Upper Midwest. 2018 ACCP Virtual Poster Symposium, May 24, 2018.

Henkel PJ, **Marvanova M.** Continuing Professional Education Selection Criteria for Hospital and Clinic-based Pharmacists Practicing in the Upper Midwest. 2018 ACCP Virtual Poster Symposium, May 23, 2018

PEER-REVIEWED SCIENTIFIC POSTER PRESENTATIONS (Continued)

Marvanova M, Henkel PJ. Differences in Blood Pressure Reading Assessments based on JNC8 and New 2017 Blood Pressure Guideline among Community-Dwelling Adults in Fargo, North Dakota. 2018 ACCP Virtual Poster Symposium, May 23, 2018.

Marvanova M, Henkel PJ. Continuing Professional Education Practices of Community and Hospital/Clinic Pharmacists in the Upper Midwest: Professional Specialization, Population-Driven Self-Education, or Something Else? American Pharmacists Association (APhA) Annual Meeting and Exposition, Nashville, TN, March 17, 2018.

Marvanova M, Henkel PJ. Pharmacist-Led Community Stroke Education and Screening Program. American Pharmacists Association (APhA) Annual Meeting and Exposition, Nashville, TN, March 17, 2018.

Marvanova M, Henkel PJ. Impact of Pharmacist-Led Community-Based Stroke Education Program on Participants' Knowledge of Major Modifiable Stroke Risk Factors and Acute/Warning Signs of Stroke. The 48th ASCP Annual Meeting and Exhibition, Kissimmee, FL, November 2-5, 2017.

Marvanova M, Henkel PJ. Pharmacist-Led Community-Based Stroke Program to Identify Individuals in Need of Intervention to Decrease Stroke Risk. The 48th ASCP Annual Meeting and Exhibition, Kissimmee, FL, November 2-5, 2017.

Marvanova M, Khan A. Can Use of the Standard and Revised Winter-Tozer Formula Accurately Predict Free Phenytoin Concentrations in Non-Critically Ill Hospitalized Patients? Encore Poster Presentation, 2017 ACCP Annual Meeting, Phoenix, AZ, October 10, 2017.

Marvanova M, Khan A. Can Use of the Standard and Revised Winter-Tozer Formula Accurately Predict Free Phenytoin Concentrations in Non-Critically Ill Hospitalized Patients? 2017 ACCP Virtual Poster Symposium (3rd place of best original research), May 17, 2017.

Marvanova M, Henkel PJ. Association of Terminal Pharmacy Degree on Community Pharmacists' Counseling on Common Adverse Effects of Donepezil in Predominantly Rural Areas of the U.S. College of Psychiatric and Neurologic Pharmacists (CPNP) conference, Phoenix, AZ, April 24, 2017.

Marvanova M. Dose-dependent Perampanel-induced Food Aversion in a Young Female with Frontal Lobe Epilepsy: A Case Report. College of Psychiatric and Neurologic Pharmacists (CPNP) conference, Phoenix, AZ, April 24, 2017.

Marvanova M, Khan A. Prediction Accuracy of Free Phenytoin Concentration in Older Non-Critically Ill Patients with Hypoalbuminemia or End Stage Renal Disease Using a Corrected Winter-Tozer Equation. The 47th ASCP Annual Meeting and Exhibition at the Hilton Anatole in Dallas, November 5, 2016.

Marvanova M, Kianirad Y. Risk for Medication Errors in Parkinson's Disease (PD) Patients during Hospitalization. The 47th ASCP Annual Meeting and Exhibition at the Hilton Anatole in Dallas, November 5, 2016.

Marvanova M, Henkel PJ. Rural Community Pharmacies/Pharmacists Responsiveness to Elderly Needs. Annual Rural Health Conference, Minneapolis, MN, May 10-11, 2016.

Marvanova M, Henkel PJ. Population and Community Pharmacist/Pharmacy Services in Rural Regions. Annual Rural Health Conference, Minneapolis, MN, May 10-11, 2016.

Henkel PJ, **Marvanova M**. Disaster/Continuity Preparedness of Rural Community Pharmacies. Annual Rural Health Conference, Minneapolis, MN, May 10-11, 2016.

Marvanova M, Henkel PJ. Are Rural Community Pharmacies Effectively Serving Community Dwelling Elderly with Alzheimer's Disease in the U.S.? The 116th AACP Annual Meeting, National Harbor, Maryland, July 11-15, 2015.

PEER-REVIEWED SCIENTIFIC POSTER PRESENTATIONS (Continued)

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Dean Charles Peterson Evaluation Committee Report

Submitted to Dr. Ingram on February 17, 2016 by committee members: Mark Strand, Don Miller, Norma Kiser-Larson, David Scott, Sanku Mallik, and Craig Schnell.

The Process

The Committee was coordinated by Charlene Wolf-Hall, Vice Provost for Academic Affairs. Committee members were selected by the procedure in Policy 327. On October 29, 2015, Provost Ingram charged the Evaluation Committee with its work.

The committee created a survey instrument pertaining to Dean Peterson's performance in the categories listed below. The online survey was open November 20 through December 7, 2015. The peer deans group was missed in the initial survey window, and the survey was reopened for them over the winter break.

In the survey, the scale used was 5= very good, 4=good, 3 = in-between, 2=poor, 1=very poor. Respondents could also select "no opportunity to observe", and such responses were not factored into numeric score statistics. For select questions in the survey, only targeted stakeholder groups were given the opportunity to respond to ensure that respondents had direct interaction with the Dean for those particular items of interest. Table 1 summarizes the response rates to the survey. Appendix A contains the aggregated data and responses to open-ended questions.

Table 1. Stakeholder response rates to survey.

Stakeholder Group	# Emailed	# Responded	Response Rate (%)
Dean	7	2	29
Department Chairs and Directors	6	6	100
Dean's Office Staff (Administrative Staff and Associate Deans)	13	6	46
Faculty	89	36	40
Staff	60	14	23
Ambassadors, Dean's Student Liaison Committee, Student members of PPRC	56	23	41
Identified as Other	0	3	
Department of Allied Sciences Advisory Board	8	5	63
Public Health		0	
School of Nursing Advisory Board	10	4	40
Development Foundation Personnel		0	
Pharmacy Advisory Board	21	9	43
Alumni Association Personnel		1	
ND Pharmacists Association		0	
ND Board of Pharmacy		2	
TOTAL	270	111	41

Vision, Leadership, Direction, and Communication

Dean Peterson received very high scores for his vision, leadership, direction, and communication skills from all survey participants in all categories consistently. For example, more than 97% of the

respondents ranked him either “very good” or “good” in providing visionary leadership for advancing the College mission in teaching, research, and service (scores: 4.81 ± 0.42 , 4.69 ± 0.55 , and 4.74 ± 0.44 out of 5.00, respectively). Consistently 98% of the participants ranked him either “very good” or “good” for clearly communicating the “mission, vision, and priorities” of the College, and NDSU (score: 4.81 ± 0.44 and 4.72 ± 0.25). More than 90% of the respondents also gave him “very good” or “good” ratings for effectively communicating expectations, administrative procedures, and for instilling trust in the College. The written comments from the participants complimented him for being an “excellent advocate” for the College who is “always at the forefront when it comes to his scope.” The students noted Dean Peterson for his “amazing job” in “encouraging and leading as an example.” The College faculty noted the Dean “as a model leader” who is “very personable in talking to anyone regardless of their title or position,” “very helpful” to new faculty members to “assure success in academic career.” The College staff commented that Dean Peterson “values each member of the team,” “instills a sense of pride,” and “motivates employees to perform to a high standard.” Another Dean at NDSU found Dean Peterson to be “a consummate professional who clearly grounds his actions in sound ethical principles.” Only two participants found that Dean Peterson does not have “much interactions with faculty and staff unless it happens during a faculty meeting,” and noted that the “Dean needs to get out of his office more.”

Planning, Administration, and Management

Numerical ratings in this category ranged from 4.36 to 4.72. The two lowest ratings were for “effective at conflict management” and “effectively oversees the PTE procedures.”

Open-ended comments in this section were mostly very positive, especially noting his ability to set direction and lead the College, but also to trust faculty, staff, and students to do the right thing without micro-managing. He receives respect for his leadership from all constituencies. To some extent this may explain the lowest numerical ratings, as one person mentioned that the Dean does not interfere with committees and chairs who are entrusted with those issues.

In general comments at the end of the survey, it was frequently noted that he is visionary, decisive, approachable, ethical, professional, and an outstanding leader.

Program Quality, Assessment, and Development

This section of the report involves six Likert scale (0=very poor to 5=very good) items and one open-ended response item. The mean scores ranged from 4.69 to 4.81 along with standard deviations from 0.39 to 0.63. Given the small range of both standard deviations and means indicates that respondents believe the Dean is effectively supporting and managing all aspects (including instruction, research, service, accreditation, program assessment, and program development) for the College.

Of the 13 open-ended response items in response to the question “please provide constructive comments regarding the Dean and instruction,” most of the responses were positive and cited his supportive nature for ambassadors, nursing department, public health, pharmaceutical sciences, and hiring effective faculty and staff. The positive and constructive responses of the Dean to the difficult accreditation process were also noted.

Outreach

Outreach was assessed by the use of three survey items, with opportunity for respondents to give open-ended responses to the statement, “Please provide constructive comments regarding the Dean and outreach.”

On a scale of 1-5, Dean Peterson scored highest on “responsive to external stakeholders” ($4.75 \pm .46$). This is supported by the fact that in 2014 he was selected by the profession of pharmacy in North Dakota to receive the prestigious Bowl of Hygeia Award. In open-ended comments it was mentioned that Dean Peterson has helped resolve contentious issues with external stakeholders, something that was deeply appreciated by the faculty member who reported it. His role in supporting Telepharmacy was also mentioned by several individuals.

The second-highest score was “provides a mechanism for the successful delivery of outreach programs” ($4.69 \pm .49$), and the third-highest was “effectively promotes the service component of the College mission” ($4.66 \pm .52$).

There were no negative comments or deficiencies reported by any of the respondents. As evaluated by survey respondents, Dean Peterson has fulfilled his role in Outreach and is to be commended for his efforts.

Development

In this survey, development was addressed through surveys sent to NDSU Development Foundation personnel (for whom there were no responses) and the topic was also included in each survey sent to all other groups as two questions:

45. The Dean effectively works with the Development Foundation and other organizations in identifying and pursuing philanthropic support, and
46. The Dean effectively develops stakeholders support for the college.

With regard to Development Foundation personnel, there were no responses, either to the Likert questions or any written comments. Given the timing and situation, this was not unusual in that nearly all Foundation personnel had left NDSU. Thus, there was a dearth of potential respondents.

With regard to the other respondent groups, there were 77 responses to question 45, providing a Likert value of $4.77 \pm .47$. For Question 46, the Likert value from 80 respondents was $4.79 \pm .19$. These values indicate very strong perception of the effectiveness of the Dean in development.

Written comments were also very positive and reflected that the Dean would need to have a very strong relationship with the Development Foundation with regard to funds for students' scholarships and in anticipation of building an addition to Sudro Hall.

It must be noted that during the evaluation period, there was no University-wide capital campaign. Fundraising was generally a College initiated effort. During this time, Dean Peterson continued with his innovative vision, being able, with Foundation support, to develop a Senior Director of Development position in order to provide more effort in fundraising. The first director was Sara Wald and, in her two years, more than \$1,000,000 of new funding was received. Sara left the College to become the Director of Engagement at the Development Foundation and Alumni Association. Dean Peterson then hired Amy Ruley to the director's position. Positive comments were received for this hire.

In summary, Dean Peterson has shown unusual acumen, effort, and innovation in fundraising and development for the college.

Overall Effectiveness

There were two open ended questions regarding Overall Effectiveness. They were: Question 48. What do you perceive as the Dean's strengths? And Question 49. What do you see as areas needing improvement related to the Dean's performance? The total number of respondents were 65 for Question 48, and 43 for Question 49.

Most frequent strengths indicated in response to Question 48 were: Personable/Approachable, Communication, Leadership Style, Visionary, and Trustworthiness. The following are several representative quotes. "His leadership in making progressive development of our college programs happen. He has also taken a positive stance and a 'Can Do' attitude on the building addition to Sudro Hall. Dean Peterson has done a great job of promoting the disciplines of pharmacy, nursing and public health." "Open to new ideas and change. Communicates well. Attends to issues in a timely manner. Attention to details. Knowledgeable about the policies and processes at NDSU. Personable. Highly ethical." "Open, fair, non-threatening. Dean Peterson has excellent character and performs his job with integrity and professionalism."

Of the 43 responses to Question 48, 15 indicated they had no improvement comments, effectively leaving 28 comments on areas needing improvement. The most frequently listed improvement areas were more interaction with students, more effective communication, and acknowledgement of faculty and staff. Representative comments are: "Visibility to other students, outside of leadership positions, would contribute to a more unified college." "Communication both internally and externally. Generally, the Dean does well in this area, but there is always room for improvement." "Communicating regularly with faculty & moving the pharmacy profession forward." "His one on one communication with faculty." "Acknowledge all staff in the department when he comes in. A little acknowledgment goes a long way to develop loyalty."

SECTION 14: What do you think is the Dean's most important achievement in the last three years.

This was an open-ended question eliciting 48 responses. Responses were quite variable and reflected the perception of the respondent.

Accomplishments cited included:

- faculty and staff hires – specific mentions of Carla Gross, Amy Ruley, Don Warne
- physical changes and movement of units within Sudro Hall
- building new programs and strengthening existing programs
- adding Public Health and strengthening and growth of Nursing
- addressing space issues
- funding for student scholarships
- change in name of College to Health Professions
- renewed accreditation status for Pharmacy and Nursing (meeting challenges)
- supporting growth in research funding
- leading College to high level of performance

SECTION 15: Any additional comments

To this open-ended question, there were 24 responses. As indicated previously, the responses were quite varied and quite positive. Citations were directed to his great leadership, wisdom, approachability, respect, dedication, an outstanding individual, and a pillar of the pharmacy community.

Appendix A is attached in the following pages.

Initial Report

Last Modified: 01/06/2016

1. 1. Your Primary Personnel Category:

#	Answer	Bar	Response	%
2	Dean		2	2%
3	Department Chairs and Directors		6	5%
4	Dean's Office Staff (Administrative Staff and Associate Deans)		6	5%
5	Faculty		36	32%
6	Staff		14	13%
12	Ambassadors, Dean's Student Liaison Committee, Student members of PPRC		23	21%
13	Other		3	3%
14	Department of Allied Sciences Advisory Board		5	5%
15	Public Health		0	0%
16	School of Nursing Advisory Board		4	4%
17	Development Foundation Personnel		0	0%
18	Pharmacy Advisory Board		9	8%
19	Alumni Association Personnel		1	1%
20	ND Pharmacists Association		0	0%
21	ND Board of Pharmacy		2	2%
Total			111	

Other

Lecturer and Committee

Nursing Advisory Board Member

Statistic	Value
Min Value	2
Max Value	21
Mean	8.85
Variance	25.97
Standard Deviation	5.10
Total Responses	111

2. Vision, Leadership, Direction and Communication

#	Question	Very Poor	Poor	In Between	Good	Very Good	Total Responses	Mean
13	2. The Dean provides visionary leadership for advancing the College mission in teaching.	0	0	1	17	84	102	4.81
14	3. The Dean provides visionary leadership for advancing the College mission in research.	0	1	1	24	68	94	4.69
15	4. The Dean provides visionary leadership for advancing the College mission in service.	0	0	0	25	72	97	4.74
16	5. The Dean effectively communicates the mission, vision, goals, and priorities of the college.	0	0	2	15	84	101	4.81
17	6. The Dean effectively communicates the mission, vision, goals, and priorities of the university.	0	0	2	24	73	99	4.72
18	7. The Dean effectively communicates expectations.	0	0	2	29	67	98	4.66
19	8. The Dean effectively communicates administrative procedures.	0	1	3	17	35	56	4.54
20	9. The Dean communicates effectively and openly	1	0	5	12	39	57	4.54
21	10. The Dean effectively instills trust in the College.	0	1	0	16	84	101	4.81
22	11. The Dean provides statewide visibility and recognition for the College.	0	0	2	16	83	101	4.80
23	12. The Dean provides national visibility and recognition for the College.	0	0	1	21	65	87	4.74
24	13. The Dean contributes to university leadership and advocacy.	0	0	1	19	79	99	4.79

Statistic	2. The Dean provides visionary leadership for advancing the College mission in teaching.	3. The Dean provides visionary leadership for advancing the College mission in research.	4. The Dean provides visionary leadership for advancing the College mission in service.	5. The Dean effectively communicates the mission, vision, goals, and priorities of the college.	6. The Dean effectively communicates the mission, vision, goals, and priorities of the university.	7. The Dean effectively communicates expectations.	8. The Dean effectively communicates administrative procedures.	9. The Dean communicates effectively and openly	10. The Dean effectively instills trust in the College.	11. The Dean provides statewide visibility and recognition for the College.	12. The Dean provides national visibility and recognition for the College.	13. The Dean contributes to university leadership and advocacy.
Min Value	3	2	4	3	3	3	2	1	2	3	3	3
Max Value	5	5	5	5	5	5	5	5	5	5	5	5
Mean	4.81	4.69	4.74	4.81	4.72	4.66	4.54	4.54	4.81	4.80	4.74	4.79
Variance	0.17	0.30	0.19	0.19	0.25	0.27	0.47	0.65	0.21	0.20	0.22	0.19
Standard Deviation	0.42	0.55	0.44	0.44	0.50	0.52	0.69	0.80	0.46	0.45	0.47	0.44
Total Responses	102	94	97	101	99	98	56	57	101	101	87	99

3. 14. Please provide constructive comments regarding the Dean's leadership.

Text Response
The Dean is an excellent advocate and seems to always be at the forefront when it comes to his scope.
Dean Peterson is a model leader. He is interested in what we do. He has an open door. He is always engaged when speaking with me. I appreciate having him as my dean.
The Dean is a very effective leader for the College of Health Professions. He encourages everyone in the College to think outside the box, growth and challenges the "this is the way we have always done it" mode of thinking to make recommendation for continuous improvements.
As a Student, the Dean does an amazing job with encouraging us and leading as an example. He always shows great leadership which helps us as students to strive to be leaders as well.
Good leader, seems to have a drive to make our college better all the time.
I very much enjoy working in the College of Health Professions under Dean Peterson's leadership. I find that he values each member of the team in the college and instills a sense of pride in the work that we do. These leadership traits, in turn, tend to further motivate employees to perform to a high standard.
Dean Peterson is an outstanding leader. He communicates on a regular and timely basis, maintains an "open door" policy and encourages feedback. He has created a very open, positive, inclusive environment where individuals thrive and stay motivated to perform. He recognizes effort and accomplishments on a consistent manner. He is very aware of and works to stay in step with the University mission. With the support he needs he will lead the College of Health Professions to an even more prominent level and successfully help in meeting the needs of the people as a student focused, land grant, research institution.
Dean Peterson is excellent when it comes to keeping us, in the College, informed.
Dean Peterson is a visionary leader who inspires all around him to excel in their roles within the College and the University. He is exceptionally effective in effectively communicating with alumni and friends of the College and University, involving them in advancing the goals of the College and spreading the word about the many initiatives and successes of all College programs.
I know very little about Dean Peterson as I am new to the University, but so far he appears to be easy to communicate with and a strong leader.
The Dean does a great job in communicating the College's vision. I do think our College could improve in sharing this vision with all students, and not just those in leadership positions.
Dean Peterson communicates the college and universities' goals/mission/values very effectively as well as very often!
Dedicated with a clear vision of the direction the college should take to remain at the top.
The Dean is an inspirational leader and positive role model for the College and University.
Leadership focus remains to be on pharmacy, but with nursing's growth and direct report to the Dean more leadership attention has been given that department in the past year
He has been very helpful to me as a new faculty member in trying to assure my success in my academic career.
Leads well
I sit on a committee with Dean Peterson regarding Pharmacy Technician education requirements and standards. He provides excellent oversight and direction to the committee with meaningful discussion points on appropriate education values and desired outcomes.
I had hoped with the increased numbers of nursing students/faculty we would see a balance between pharmacy and nursing. Maybe change is happening, we still appear to be the college of pharmacy not the college of health professions
Dean Peterson communicates very well within the state and is very busy. Because of the wide variety of education the school provides (leading to the name change) I'm not sure we are getting national recognition of that variety. Since ND has the ownership law, maybe consideration of him attending the NCPA annual meeting should be considered.
Dean Peterson is an excellent leader. He is well trusted and admired by faculty and staff in the College and has done an exceptional job of supporting the advancement of all disciplines.
Dean Peterson is very proactive in sharing information related to the advancement and achievements of the college.
I have never had a disappointing interaction with the Dean in almost 14 years of working with him. He is knowledgeable about systems and procedures and understands the art of working with people. I have found him to be a very inspiring leader. My thoughts often go back to ideas and outlooks he has communicated to me and I am able to apply these in my own leadership duties. He supports without micromanaging which is a fabulous model for the rest of us.
Dr. Peterson is an excellent leader and dean.
Interaction with the Dean is limited, but his passion for the College and University is unquestionable.
Our college has benefitted greatly due to Dean Peterson's leadership.
I feel that he makes his position known and is very personable when talking with anyone, regardless of their title or position. I feel that he communicates leadership and also truly cares about everyone.
Dr. Peterson is a great listener, and communicates effectively in simple yet professional words that even a nonprofessional can easily understand. I wish I had a chair like him! I also wish I had more interaction than I had so far as a Jr faculty!
Very involved with students and supportive!
Not much interaction with faculty and staff, unless it happens during a faculty meeting
My relationship with Dean Peterson has been mainly through my involvement with the nursing department and the allied sciences area. My interactions with the Dean have always been positive. He is a great ambassador for the College of Health Professions and for NDSU in general. He represents the College well at other functions sponsored by the University and actively participates in numerous functions such as Alumni and Foundation events.
Our Dean is a dedicated, strong advocate for our college within the university and at the state level. No changes in style or substance recommended!
Dean Peterson has an ability to excite all those who work for him directly and indirectly about the purpose in our positions. He shares his passion with our College which translates in faculty and staff pushing themselves to the next level. He can see all avenues when looking at a situation. He requires that faculty, staff, and students follow the guidelines/policies of the University. He can look at the big picture as well as the details needed to get there.
Dean needs to get out of his office more and view the workings of the college.
I think, He has some good leadership qualities such as good listener, understands what people want from him, spends time with students and staff, and asks for constructive suggestions how to make the college better. These qualities of him, makes him a good leader.
Dean Peterson is a consummate professional who clearly grounds his actions in sound ethical principles. He has been an excellent colleague among the deans, and I have found him to be a helpful source of guidance and support. He has a deep commitment to serving the university and his college. He also has very good leadership and interpersonal skills.

Statistic	Value
Total Responses	36

4. Planning, Administration and Management

#	Question	Very Poor	Poor	In Between	Good	Very Good	Total Responses	Mean
8	15. The Dean works effectively with personnel in identifying short-term goals.	0	1	2	25	45	73	4.56
9	16. The Dean works effectively with personnel in identifying long-term goals.	0	1	1	21	59	82	4.68
10	17. The Dean provides effective planning for advancing the College mission in teaching.	0	1	3	24	56	84	4.61
11	18. The Dean provides effective planning for advancing the College mission in research.	1	0	3	25	52	81	4.57
12	19. The Dean provides effective planning for advancing the College mission in service.	0	0	4	23	55	82	4.62
13	20. The Dean effectively oversees the recruitment process and ensures hiring of highly qualified personnel.	1	1	6	24	46	78	4.45
14	21. The Dean effectively implements mechanisms for attracting and retaining women and underrepresented groups.	0	1	2	21	47	71	4.61
15	22. The Dean effectively ensures an environment for the retention of personnel.	0	0	3	16	38	57	4.61
16	23. The Dean effectively provides support for personnel professional development.	0	0	4	14	39	57	4.61
17	24. The Dean is effective at conflict management.	1	0	7	12	27	47	4.36
18	25. The Dean effectively allocates resources.	0	1	1	17	33	52	4.58
19	26. The Dean effectively manages and reviews personnel who report to him directly, i.e. Dean's office staff and chairs.	0	0	0	2	10	12	4.83
20	27. The Dean effectively oversees the college's promotion, tenure and evaluation procedures.	1	0	3	13	20	37	4.38
21	28. The Dean effectively shares governance with personnel when appropriate.	1	0	2	20	27	50	4.44
22	29. The Dean is effective in building interdisciplinary relationships within the college.	1	0	8	25	53	87	4.48
23	30. The Dean works effectively with other colleges and interdisciplinary programs.	0	0	3	19	58	80	4.69
24	31. The Dean is effective in building inter-institutional relationships.	0	0	3	21	53	77	4.65
25	32. The Dean makes decisions in a timely manner.	0	1	2	17	66	86	4.72

Statistic	15. The Dean works effectively with personnel in identifying short-term goals.	16. The Dean works effectively with personnel in identifying long-term goals.	17. The Dean provides effective planning for advancing the College mission in teaching.	18. The Dean provides effective planning for advancing the College mission in research.	19. The Dean provides effective planning for advancing the College mission in service.	20. The Dean effectively oversees the recruitment process and ensures hiring of highly qualified personnel.	21. The Dean effectively implements mechanisms for attracting and retaining women and underrepresented groups.	22. The Dean effectively ensures an environment for the retention of personnel.	23. The Dean effectively provides support for personnel professional development.	24. The Dean is effective at conflict management.	25. The Dean effectively allocates resources.	26. The Dean effectively manages and reviews personnel who report to him directly, i.e. Dean's office staff and chairs.	27. The Dean effectively oversees the college's promotion, tenure and evaluation procedures.	28. The Dean effectively shares governance with personnel when appropriate.	29. The Dean is effective in building interdisciplinary relationships within the college.	30. The Dean works effectively with other colleges and interdisciplinary programs.	31. The Dean is effective in building inter-institutional relationships.	32. The Dean makes decisions in a timely manner.
Min Value	2	2	2	1	3	1	2	3	3	1	2	4	1	1	1	3	3	2
Max Value	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean	4.56	4.68	4.61	4.57	4.62	4.45	4.61	4.61	4.36	4.58	4.83	4.38	4.44	4.48	4.69	4.65	4.72	
Variance	0.39	0.32	0.39	0.47	0.34	0.64	0.39	0.35	0.38	0.80	0.41	0.15	0.74	0.58	0.58	0.29	0.31	0.32
Standard Deviation	0.62	0.56	0.62	0.69	0.58	0.80	0.62	0.59	0.62	0.90	0.64	0.39	0.86	0.76	0.76	0.54	0.56	0.57
Total Responses	73	82	84	81	82	78	71	57	57	47	52	12	37	50	87	80	77	86

5. 33. Please provide constructive comments regarding the Dean and planning, administration and management.

Text Response

The Dean is well respected both within NDSU and outside the organization. He effectively communicates the strategic plan for the College, while matching it with NDSU's strategic plan. The Dean is respectful of everyone regardless of race, gender, etc.

Through my time as an ambassador for the pharmacy program and as an ambassador for NDSU, I have witnessed the Dean do an exceptional job with his interprofessional skills when he interacts with other leaders across campus (for example when we are at Bidder's Bowl or Recognition Societies Dinner). Also, in being in the committee for the pharmacy practice department chair, I was very impressed with his willingness and trust in our committee. He allowed us to grab this by the horns and drive it rather than him making all the decisions and us following. He does a wonderful job in the hiring process.

His record says it all...moved from a College of Pharmacy to Pharmacy, Nursing and Allied Sciences to College of Health Sciences. Planned and coordinated implementation of the Masters of Public Health program, recruited top notch researchers and faculty bringing millions in grant money to NDSU.

Dean Peterson has taken on the Bismarck Nursing program with openness and willing to allocate resources to this area.

Dean Peterson's leadership in recruiting faculty and staff has been excellent. Hires from Dr. Warne to Amy Ruley have made NDSU an attractive place to work for other potential candidates.

Effective leadership and uses the talents of his staff.

Several of these items are difficult to assess generally, and as they might pertain to others in the College whose experiences with the Dean are unlike my own. #15-20 seem to be left up to department administration without the Dean micro-managing, which is a plus when you have effective leadership at the department level.

Unable to comment as faculty can be uninvolved in administration in management

Dean Peterson works with the Pharmacy Technician program at Wahpeton State School of Science. He is respectful of the current program at Wahpeton and has encouraged a teamwork approach to resolving a growing need in the State for Pharmacy Technicians. This has included discussion of a joint partnership between the two institutions.

Dean Peterson does a good job.

The Dean is very forthcoming concerning The College's participation and leadership in guiding the direction of NDSU.

The Dean has provided guidance for hiring my department and is always aware of the need to promote diversity within the staff, and more than promoting it, he wants to see concrete methods being used to achieve diversity in the staff.

Dr. Peterson is a good manager.

Solid, thoughtful, respectful, puts a good team together.

Evidence of the Dean's effectiveness in this area is apparent by the concepts we are asked to consider as part of the Advisory Board role.

While job performance reviews are required of faculty and staff, the periodic review of associate deans has not been done on a regular basis (particularly the senior associate dean, since the 1st one being done this year). As the College continues to grow, effective communication is essential. Both internally and externally there is room for improvement.

Dean Peterson has been very supportive of all programs at the College of Health Professions. He has been very supportive of the initiatives brought forward by Carla Gross, the chair of the nursing department. There have been many new and innovative strategies in the department such as the increased enrollment of nursing students, new program development and the merger of Med Center One School of nursing with NDSU. He has been actively involved, assisted Carla to navigate and bring these initiatives forward to the President to get them on the fast track and get them completed. I know he worked diligently to assist with the merger of the two nursing programs as I work at Sanford and was privy to the information and would see him come to Sanford with Carla to attend many meetings with much work done prior to those meetings to make the end result very successful.

Outside of public health, we could improve diversity in the other schools and departments.

Dean Peterson understands the importance of strategic planning.

Dean has made many very, very poor administrative hires.

Dean Peterson has excellent skills in the areas of planning, management, and administration. He ensures that his college sets and pursues clear strategic priorities.

Statistic	Value
Total Responses	21

6. Program Quality, Assessment and Development

#	Question	Very Poor	Poor	In Between	Good	Very Good	Total Responses	Mean
15	34. The Dean effectively supports quality instruction.	0	0	3	20	66	89	4.71
16	35. The Dean effectively supports quality research.	0	1	1	22	62	86	4.69
17	36. The Dean effectively supports quality service.	0	0	2	24	63	89	4.69
18	37. The Dean effectively ensures program accreditation.	0	0	0	18	77	95	4.81
19	38. The Dean effectively utilizes assessment of programs in the college.	0	0	4	17	34	55	4.55
20	39. The Dean effectively manages program development.	0	1	0	24	66	91	4.70

Statistic	34. The Dean effectively supports quality instruction.	35. The Dean effectively supports quality research.	36. The Dean effectively supports quality service.	37. The Dean effectively ensures program accreditation.	38. The Dean effectively utilizes assessment of programs in the college.	39. The Dean effectively manages program development.
Min Value	3	2	3	4	3	2
Max Value	5	5	5	5	5	5
Mean	4.71	4.69	4.69	4.81	4.55	4.70
Variance	0.28	0.31	0.26	0.16	0.40	0.28
Standard Deviation	0.53	0.56	0.51	0.39	0.63	0.53
Total Responses	89	86	89	95	55	91

7. 40. Please provide constructive comments regarding the Dean and instruction.

Text Response	
The Dean hires effective Faculty and Staff, and utilizes them. He communicates trust by delegating as needed. He supports recommendations after reviewing and asking the right questions.	
During ambassador meetings and DLC, the Dean always makes sure that he is keeping us updated on what is going on in the college. He lets us know what is going great and what isn't so pretty, but he always remains positive about it. He let us, the pharmacy class representatives, know that we might now have classes in Sudro with the Stem building opening. This allowed us to communicate with the other students in our class so that they were prepared in advance rather than having the news be a shock.	
Responded positively to accreditation issue regarding inadequate space by developing a comprehensive plan for adding space, gaining support from the University executive leadership and presenting the plan to state legislators for funding.	
The challenges with the pharmacy accreditation we handled extremely well. Dean Peterson was extremely professional in his communication and interaction with ACPE.	
Provides good input and support. Again, utilizes staff for ideas and implementation to keep programs strong.	
Dean Peterson is a good detail person and assures good classroom and instruction.	
Dean Peterson has been extremely supportive of Nursing during the unit's growth and has intervened on Nursing's behalf at various levels to assure there are needed resources for growth.	
Dean Peterson regularly shares the challenges of accreditation and successful recruitment of research funding. He engages the Advisory Board on short and long-term strategy to both harvest opportunities and cultivate relationships beneficial to NDSU.	
The Dean shows vision in his assessment of our program as it exists and where it is going. He has always been supportive of the innovations we have developed in our service area yet makes clear the constraints under which the University and we must operate.	
These topics are always on the Advisory Board agenda and it is apparent that their placement is a result of direction from the Dean.	
Quality research is well supported financially for pharmaceutical sciences and to a lesser degree for pharmacy practice.	
We have a well-rounded academic College with excellence in teaching, research, and service.	
Dean has favorites among depts.; high favorability in Pharmacy Practice and Public Health. Nursing-in between.	
Statistic	Value
Total Responses	13

8. Outreach

#	Question	Very Poor	Poor	In Between	Good	Very Good	Total Responses	Mean
6	41. The Dean effectively promotes the service component of the college's mission.	0	0	2	26	60	88	4.66
7	42. The Dean provides mechanisms for the successful delivery of outreach programs.	0	0	1	22	57	80	4.70
8	43. The Dean is responsive to the needs of external stakeholders.	0	0	1	16	58	75	4.76

Statistic	41. The Dean effectively promotes the service component of the college's mission.	42. The Dean provides mechanisms for the successful delivery of outreach programs.	43. The Dean is responsive to the needs of external stakeholders.
Min Value	3	3	3
Max Value	5	5	5
Mean	4.66	4.70	4.76
Variance	0.27	0.24	0.21
Standard Deviation	0.52	0.49	0.46
Total Responses	88	80	75

9. 44. Please provide constructive comments regarding the Dean and outreach.

Text Response
<p>The service component of the College's mission is very important, and easily seen through the work of the College through outreach programs, volunteering done by students and faculty, etc. The Dean has established and continues good relationships with alumni and supporters of the College.</p>
<p>The Dean is always there to listen. As a pharmacy student, Ambassador, Class Representative, and a member of committees throughout my time in the program, the Dean has listened when there was an issue and continually reminds me that his office is always open and to stop by when there is an issue. He treats everyone as an equal no matter their title they hold. He lends his knowledge, support, and word always and it is appreciated it so much.</p>
<p>Our College has a lot of moving parts. There always seems to be so much going on. The Dean is vividly aware of these things and is fantastic about promoting them!</p>
<p>Implementation of national advisory boards representing all stakeholders ensures external input to the College and fosters cross communication between students, faculty, and alumni.</p>
<p>very responsive to pharmacy sponsors</p>
<p>If the advisory committee is one of the "external stakeholders" he does a great job.</p>
<p>Under the leadership of Dean Peterson, College staff regularly share their outreach, recruitment and service activities with Advisory Board members for purposes of strategy development and evaluation.</p>
<p>My department has a large component of community service. The Dean is very accomplished in working with external stakeholders. I have had a number of opportunities to be part of interactions where there was the potential for a contentious situation to develop. He has always been able to handle these difficult conversations and offers smart ideas which benefit all. I have seen him work smoothly and patiently in some very difficult situations and he is good at negotiating good outcomes for our department. I have always felt that he is 'there' for us when we have had to deal with our external contacts and brings a confident, cooperative presence.</p>
<p>Communicates well with advisory board. Visible and inclusive.</p>
<p>No opportunity to observe.</p>
<p>Positively involved with student organizations and events such as scholarship ceremonies, retreats, and hooding/pinning ceremonies</p>
<p>Again, the work done with Med Center One school of nursing stands out to me. Great accomplishment. Also, I do see the Dean at the graduation of the Allied Science students as I have been invited to address this group as a graduate of the college and a representative from the Alumni Association Board of Directors. He makes certain that he works with all programs within the College, giving equally to each program. I am less familiar with seeing him interact with the pharmacy program but I know from others he is equally committed and works in a similar fashion in that area as it is a large and well respected program.</p>
<p>The Dean's door is always open. He understands the importance of outreach and supports the many outreach programs our College provides.</p>
<p>Dean has done a good job in supporting the TelePharmacy program.</p>

Statistic	Value
Total Responses	14

10. Development

#	Question	Very Poor	Poor	In Between	Good	Very Good	Total Responses	Mean
3	45. The Dean effectively works with the Development Foundation and other organizations in identifying and pursuing philanthropic support.	0	0	0	18	59	77	4.77
4	46. The Dean effectively develops stakeholder support for the College.	0	0	1	15	64	80	4.79

Statistic	45. The Dean effectively works with the Development Foundation and other organizations in identifying and pursuing philanthropic support.	46. The Dean effectively develops stakeholder support for the College.
Min Value	4	3
Max Value	5	5
Mean	4.77	4.79
Variance	0.18	0.19
Standard Deviation	0.43	0.44
Total Responses	77	80

11. 47. Please provide constructive comments regarding the Dean and outreach.

Text Response

The Dean works effectively with the Development Foundation and others. He has hired Amy Ruley as the Senior Director of Development to help grow this area within the College. While the college has been effective in philanthropic support, there are always opportunities for growth and expansion.

I have the great opportunity of being a Bison Ambassador so I get to see the Dean outside of Sudro's walls. I see him associating with the Alumni Association on multiple events and he is always showing his greatest professionalism. He does a great job with his communication and his support for the college. His pride in the College of Health Professions is always seen.

The partnership the college has with the alumni association is truly visionary. Keeping donors engaged in the college is critical to continued support for the colleges programs.

The Dean is fantastic with NDSU Pharmacy alumni in ensuring continued support.

Very actively involved

#45 is probably true for pharmacy

Foundation needs to step up and formulate a plan to get a Sudro Hall addition completed. The biggest problem for Dean Peterson is space.

My observation of funding is he depends on others for that part of the operation, which is OK.

Dean Peterson is well respected at the university and across the state.

Membership on the Advisory Board affords me first hand observation of Dean Peterson's efforts in the promotion of The College's external image and fostering pride within Alumni and partners.

No Opportunity to observe.

Always available, servant leadership approach.

We have representation from the Development Foundation and also internal Development presence at our Advisory Board meetings. The Dean also stresses these areas when he meets with us.

This is an area that should be targeted for growth. While scholarships are well supported, faculty development, study abroad, research/service improvement in North Dakota also need to be supported and developed.

I had worked closely with Sara Wald who was the foundation representative at the College of Health Professionals and left to work full time at the Alumni Center. I had many opportunities to observe Sara interact with the Dean and they worked very well together to garner support for the programs in the College. I have not observed this since Amy Ruley took that role but I would assume he would work with Amy in the same way.

Our College has an excellent relationship with the Development Foundations, and much of this has to do with the Dean's recognition of its importance and dedication to development.

The Dean has a great relationship with our stakeholders and alumni.

One of Dean's strengths

I can say that he tries his best to outreach to people to ask them for philanthropic support and also reach the stakeholder to support college.

Dean Peterson has strong skills in the area of development, and he has promoted ideas and practices that would help the Development Foundation be more successful in the future, particularly in drawing upon the talents and strengths of the deans and other administrative leaders.

Statistic	Value
Total Responses	20

12. Overall Effectiveness 48. What do you perceive as the Dean's strengths?

Text Response
His communication and understanding of what needs to be accomplished for a quality program
Personable, easy to talk to and work with
great at keeping the advisory board informed
Open, fair, non-threatening. Dean Peterson has excellent character and performs his job with integrity and professionalism.
Very personable with students, always willing to listen to students and provide encouragement and support
The Dean is an effective communicator and leader. He is compassionate and kind. The Dean has the ability to 'look at the big picture', and make the difficult decisions if needed that will benefit NDSU, faculty, staff and students.
He is exceptional at working with other University Administrators and external stakeholders.
Dean Peterson is a very effective and well respected leader. He is responsive to the needs of the medical community of North Dakota and utilizes the strengths of the college to address practice issues.
I perceive the Dean to have many strengths. He is a great role model for the College of Health Professions and all who make this college what it is. He is available when we need him, he is willing to support us in our adventures throughout the college, he takes the time to get to know people on a personal level, he encourages students, he participates in multiple events throughout the college, he has FUN. I don't know how many other college's have a Dean that participates in the ALS ice bucket challenge during school hours with a big smile on his face. He is a pleasure to work with in all aspects.
Approachable and seems assertive
approachable, personable, engaged
Outstanding leader, highly intelligent, thoughtful and processes extremely, collaborative. Thinks BIG but within a realistic realm. An optimist and individual who sees the glass as half full. Very much a team player in relationships across campus.
One of Dean Peterson's greatest strengths is that he is available, visible, and clearly invested in faculty, staff and students. He has genuine care for and interest in the people around him regardless of their role or rank. He makes it clear that he has an open door to all and it is true. I appreciate that a great deal.
Vision, leadership and communication.
He seems approachable and willing to grow the College of Health Professionals
The Dean is an effective communicator and ensures that the Advisory Board is kept up to date. He is also extremely good at sharing the accomplishments of the college.
He is patient, logical, and forward thinking.
He is a very approachable leader, which I believe is extremely important for students. My organization has always felt supported by him.
Leadership skills
He is well liked around Campus. He is a great advocate for all divisions in our college. He is supportive of personnel.
Dean Peterson is an inspirational leader in developing relationships with alumni and other stakeholders. He has a vision for the College and is able to move his vision forward.
Reliability, calm, and stable presence.
As a member of Ambassadors for Health Professions, I have not only observed but also been given the opportunity to know Dean Peterson. His strength would include: efficient, personal, and demonstrates knowledge about the college.
He is knowledgeable about nearly everything Academic. He is extremely approachable, by anyone and always willing to offer advice or general counsel. Every time I have asked to meet with him, he has been most accommodating.
People skills, exudes cooperation, constructive thinking, visionary. Goal driven.
vision, perseverance, focus
Visionary leadership Inspires confidence and trust in the College Trustworthy Dedicated Selfless Composed Approachable
Dean is very personable and easy to talk to!
Knowledgeable, supportive, calm and thoughtful demeanor.
He communicates well and is inclusive.
Open communication with faculty, staff and students. Pride in the college of health professions and its continued growth.
Fair and just leader
His leadership in making progressive development of our College programs happen. He has also taken a positive stance and a "Can Do" attitude on the building addition to Sudro Hall. Dean Peterson has done a great job of promoting the disciplines of pharmacy, nursing and public health.
Dean Peterson's ability to identify an issue, listen to concerns, develop a strategy and then move forward to resolution.
Networking capability and national reputation
Very collaborative and measured in his approaches to problems. Done a wonderful job of developing external relationships.
easy to discuss issues approachable
He is very effective in supporting instructors and staff and seems to be well-liked as a "boss." He communicates well with us as advisors and is open to new ideas. He has a good knowledge of the NDSU College of Pharmacy history. This serves us well in planning progress and new programs.
Open to new ideas and change. Communicates well. Attends to issues in a timely manner. Attention to details. Knowledgeable about the policies and processes at NDSU. He has a great relationship with other Deans and administrative leaders at NDSU. Personable. Good sense of humor. Highly ethical.
Involved in student development directly
He is very involved and loves to hear from the students.
I believe Dean Peterson demonstrates exemplary leadership through experience, accessibility and stability. From my time as a student to practicing pharmacist to Advisory Board sitting alumni, Dean Peterson has remained a solid advocate of professionalism, academics and NDSU.
Insight - he has an understanding of situations/relationships/programmatic issues and can bring forth all aspects which need consideration Honesty/trust- I have always had 100% confidence that the Dean operates with transparency Ability to make his direct reports accountable for their work Loyal- supports the University/College/Staff in is very open and public about that High standards- I don't feel that the Dean will ever cut corners or do anything deceptive- another great leadership quality Consistency- I always

know what to expect from the Dean. He has set a high standard and applies that to all situations.

I admire Dean's support to the department chairs in achieving the goal of the department(s) to reach the next level of excellence in teaching, research and service.

Thoughtful - calm - professional - genuine

*Availability *Respect for others *Knowledge of current issues

I was so impressed at how much influence he holds and yet how personable he is and interested in all levels of his duties and the college.

I just got elected and became part of the committee so do not know.

Great listener; great self-control; watches every word that he says therefore always comes out perfectly contextual n most of the times prevents further discussions/arguments.

Communication skills and abilities to listen to faculty's concerns

Support of students

Dean Peterson is very decisive and forthcoming. He provides good explanations and rationale for necessary processes, and is shows a high level of support for all of the programs within the College.

I have been involved with The Nursing Alumni Board for one two months,so I have never had the opportunity to observe the Dean.

Communication, trustworthiness, leadership and passion to improve the College and NDSU. Most faculty enjoy working here and have a trust in the Dean. We are fortunate to have Dean Peterson as our leader.

I don't have enough experiences to judge this.

The Dean is very personable and is a very good listener. He listens carefully to new ideas brought to him and trusts in the people who are the content experts to carry out ideas once he okays them. He also continues to support them as the initiatives develop.

Good voice and leader

Effective at advocating for College programs with University administration and outside stakeholders. Open door policy.

Leadership Trust Genuine Integrity

He's very honest; friendly & willing to talk to anyone in a respectful manner; willing to talk to students when he sees them when it is a setting outside of school/school function; visionary;

Dedication, vision, honesty, communication skills. We have regular, honest, and open communication.

Dean Peterson's biggest strength is his leadership style. He values all employees and students and this creates a team atmosphere. He's always positive and concerned about us as an individual.

Great supporter externally on campus and in state for certain programs.

Communication with alumni and supporting pharmacy in ND.

The Dean exhibits the professionalism of his position, with excellent communication skills and unwavering support for the college programs and the University.

Collegiality, vision, communication skills, long experience and good knowledge of college, university, and higher education in general.

As mentioned in earlier answers, Dean Peterson's actions are solidly grounded in ethical principles and he has very good interpersonal skills. He conveys a strong sense of commitment and compassion toward his colleagues, which makes him a trusted leader. He also has good working relationships with the deans in other colleges. Dean Peterson has excellent leadership skills as a dean.

Statistic	Value
Total Responses	67

13. 49. What do you see as areas needing improvement related to the Dean's performance?

Text Response
I think he just needs time to win over other stakeholders.
Provide opportunities for the departments within our college to collaborate more, break down silos.
I am not aware of any at this time.
Perhaps a bit more internal visibility, and a bit more interaction with the students and faculty in their daily activities (not just when there is an issue to be addressed or problem to solve) would be beneficial for the College.
I think continuing to encourage his faculty to be forward thinking on research and involvement in the profession will be important to assure we keep the pulse on the profession and its impact on patients for the future.
The only thing I would say could use a little improvement would his involvement with the "normal students" in the college. If I wasn't as involved as I am, I personally do not feel that I would be able to say so many great things about him because I wouldn't know him very much. Many students in my class have never had a one on one interaction with him; they only heard him speak during orientation. I think it would be cool for him to show students throughout the college that he is available because it's not just its student leaders that have feedback or issues, but every student has feedback and issues.
Needs to "toot his own proverbial horn" more. He is sometimes overly sensitive to the other units on campus in terms of not wanting to appear arrogant or boastful.
I don't see any at this point
Extend the reach for promoting accomplishments. It's great for everything to be shared with the Advisory Board; however, the information needs to be shared beyond the advisory boards and faculty in a more timely fashion.
His one on one communication with faculty.
N/A
Project his voice when speaking.
I'd like to see him become a little more familiar with staff from other departments in the college. Stop and greet staff when he comes in to see others in the departments. Staff would appreciate some acknowledgment occasionally as he is walking in the halls or stops in an office. Acknowledge all staff in the department when he comes in. A little acknowledgment goes a long way to developing loyalty.
Visibility to other students, outside of leadership positions, would contribute to a more unified college.
Communicating regularly with faculty & moving the pharmacy profession forward.
Nothing.
None-
Perhaps communicate more effectively using less words and avoiding the tendency to "process" out loud.
n/a
I have not been here long enough to really observe this.
None
more visibility in Nursing
There needs to be more support (money and services) for tenured faculty and faculty on tenure track. And he is not very interactive with faculty other than pharmacy.
None
Better knowledge about what is going on at the department level
I'd love to see him more involved at a national level in pharmacy leadership, however NDSU and the state of ND are holding back what he is capable of doing by not giving him the space he needs to do it. Further, he cannot push the pharmacy curriculum to a new level without this.
With the lack of solid building remodeling and expansion support from politicians he may need to consider getting a bit more involved with some personally. The alternative would be to make others, particularly the advisors and maybe students more knowledgeable about our serious dilemma of accreditation. This should start now, with some gentle lobbying. Few know that we are now in five locations. A short description of our key concerns to politicians could start the process a year or so before the next legislative session and a new governor is responsible for the capital budget of NDSU.
Sometimes he could be more concise in his verbal and written comments.
Today's media-rich, information-based world requires optimum placement of messaging with high impact. The College has relied on the success of it's alumni in placing Pharmacy as a highly sought degree, future recruitment of quality students, researchers and funding will depend more and more on effectively "marketing" the NDSU College of Health Professions to stakeholders key to the continued success of The College.
In all honesty, I can't answer this question. As I mentioned previously, I have NEVER been disappointed in any interaction I've had with the Dean and I have never heard a bad word spoken about him. I am unable to contribute an answer to this question.
Can think of nothing from my perspective -
NA
Nothing that I have adequate knowledge of.
I just got elected and became part of the committee so do not know.
Research in Pharmacy Practice is very poor compared to an equivalent School of Pharmacy in the country. While a few makes an effort in carrying out research in teaching/assessment/pedagogy-related aspects, no clinical research that can be delivered to patients' current needs. That is discouraging given the fact that we have so many talented faculty in this Dept.
Communication both internally and externally. Generally, the Dean does well in this area, but there is always room for improvement.
N/A
I don't have any.
Reaching out to all groups to participate in events
More focus on diversity would make our College stronger and would better meet the needs of the healthcare system.
N/A

Needs to treat units equivalently.

The Dean will need to garner high levels of support from alumni and friends to meet the space needs of the college and ensure continued accreditation of the school of pharmacy. I believe this is within his skill set but will be the greatest challenge of the next three years.

I don't see much that needs improvement.

He shares many useful thoughts and ideas, but at times he could talk less frequently to ensure that others have a chance for input.

Statistic	Value
Total Responses	45

14. 50. What do you think is the Dean's most important achievement in the last three years?

Text Response
Changing the overall organization of the Health Professions department
promoting the need to update and expand Sudro for the various colleges
Establishing the MPH program.
The name change of our College
The growth and expansion of the Nursing program and adding Public Health.
Assisting the School of Nursing faculty, staff and students through its recent growth.
Leading the growth especially in research, nursing and public health program has been impressive to me.
I have only known of 1 big push that the Dean made and that was for the building extension. He worked so hard for that and got us in a great position for the extension, it was unfortunate that the state did not approve any of the proposals state wide. Even though we didn't get it, he didn't give up. He worked really hard to make sure we got everyone where they needed to go to make sure students will still be able to graduate from an accredited college. I think that is a huge achievement. Even when all odds were against him, he pushed through and it made it look effortlessly from the outside. He did a great job with staying positive and continually pushing when he knows the needs the of the college.
Name change
gathering input and getting support for the Sudro expansion.
Faculty and staff hires. Research work with the three RO1 and soon to be announced additional grants. These are tremendous accomplishments that impact real people and the future of health care! The collaborative model to the College of Health Professions that will positively impact our students (particularly when they can study and learn under one roof when the Sudro addition becomes a reality or a larger facility is provided). Our students will continue to be leaders in the health professions with the foundation of teamwork that they experience from the moment they enter the CHP.
Gaining support for and approval of advancing to a College of Health Sciences thus cementing a multidisciplinary education for students. This is vital in order to deliver modern healthcare services to North Dakotans and the nation today and into the future.
Working on the construction and maintenance of the buildings needs and acquiring the Bismarck Nursing program
Renewed accreditation for the College of Pharmacy. Development of the MPH program.
Growth of the college.
Improvements to space in Sudro Hall Increasing the number of nursing students
Assisting with the expansion of the School of Nursing and MPH.
Working towards the completion of the Sudro building expansion.
Addressing space issues
Expansion of the nursing program and attempting to meet accreditation standards by advocating for a new building. Facilitating/leading a successful accreditation visit for the Pharm D program.
Funding for research.
Instituting the MPH degree (and subsequent School of Public Health)
Probably funding for the Sudro expansion?
unknown
The hiring of a director for Public Health Program and support for all that program has achieved and support for further development of the Nursing Program.
Movement of the College of Pharmacy forward to the College of Allied Health Services
Procurement of funding for student scholarships
Hiring Amy Ruley as his development director; I think she will do an outstanding job. He was very fortunate to have Sara Wald before that.
Growth of the school in student population and programs.
Supporting and overseeing the College's growth.
Meeting challenges of accreditation and anticipated success of cultivating the needs of The College to improve infrastructure to remain a leader in the provision of health profession education and research.
Being in a service area off campus, I am probably not aware of the on campus developments that have occurred. I have been able to observe the development of the physical facility of Sudro and now the new nursing area and I have heard from students and faculty about the developments in the academic curriculum.
I see him strengthening all the programs of the college in the last three years, especially building new programs (Public Health and Nursing).
Hiring Carla Gross - building the nursing program.
*Elevation of the need for additional space to the Legislative bodies.
I just got elected and became part of the committee so do not know.
Dean played an instrumental role in expanding the facilities for the college, and tried to find room by reaching out every corner available in the campus. He took the case to the state-level for procuring funds and he did a great job with that, yet we look forward for outcomes.
Maintaining a collaborative environment between the different Departments
Support and development of the Department of Public Health and the MPH program.
I don't have enough experience to judge this
From my perspective, it would be the support and trust he has given to the development and expansion of the nursing program.
Obtaining space for all programs to thrive.
Leading the College to high level of performance and outstanding students and faculty
Receiving the new accreditation status as the School of Pharmacy, School of Nursing, and the College of Allied Sciences.

Smooth transitions as the College undergoes tremendous growth.

His ongoing success in growing our College and handling the pains of that growth.

Establishing/strengthening programs in public health and nursing--in Bismarck

Achieving an unprecedented level of grant funding for research from the pharmaceutical sciences faculty.

I think one of the most important achievements has been the growth the nursing program and supporting the development of the MPH program.

Dean Peterson has moved the college forward in several critical areas, including enrollment growth, program development, fundraising, sponsored research, and alumni outreach. He has taken the steps necessary for the College of Health Professions to be a highly successful college.

Statistic	Value
Total Responses	51

15. 51. Any additional comments?

Text Response

I believe Dean Peterson is a great leader and we are very fortunate to have him as our Dean in the College of Health Professions.

I have been very impressed with Dean Peterson's leadership. He is clearly a leader that is worth following. He has clear goals for the growth of the College of Health Professions, and I believe the next 5 years will be an exciting time of growth.

I am very satisfied with Dean Peterson's leadership of the College.

Chuck is truly a pillar of the pharmacy community in our state. His impact is very widespread!

I really respect the Dean and all that he does for us. I thank him a lot because I know it cannot be easy to be in his position, but I appreciate all that he does.

Space for research, teaching, interaction and collaboration will provide the support the Dean needs to be allowed to grow the College of Health Professions to meet the potential it offers our students and ultimately our citizens.

I very much appreciate his leadership, wisdom and approachability.

Big job next to rally funds for physical plant expansion.

Dr. Peterson is outstanding and NDSU is very lucky to have him.

I think I've said all I can think of right now!

We are extremely fortunate to have a Dean of this high quality.

I'd like to commend The Dean on his dedication and leadership through a difficult period and encourage his continued devotion to the advancement of The College and NDSU.

As you may have noticed in my previous comments, I feel so fortunate to work directly for the Dean. I feel that he always 'has my back' yet he affords all of our department's staff the trust and support needed for us to move ourselves forward and continue to innovate in an independent manner. He has laid out expectations of how we are to conduct ourselves in our work and then steps back and lets us do it. I feel a great responsibility to never disappoint him. In 38 years in the pharmacy profession, I find him to be the person I respect the most.

I have had opportunity to work in different countries and I can say with confidence that this dean is very trustworthy.

It is a pleasure to serve on this Advisory Board. I have served on several others, many with much less support and acknowledgement from Administration. Thanks, Dean, for what you do everyday!

I just got elected and became part of the committee so do not know.

Dean is encouraged to meet with junior faculties once in a while n interact with them in different ways. I haven't seen him after I spoke with him during my interview!!!

More time to fish! However, I am not suggesting retirement. What you have accomplished in your nearly 20 years of Deanship is incredible.

N/A

Thanks for asking me to participate.

Blessed with an outstanding individual and leader!

Keep up the great work!

I feel what Dean Peterson has created with our College is something that is difficult to explain. So many people are so very thankful to be working in this College and under his direction. He makes us all feel valued and essential no matter what our position is.

Associate deans in pharmacy need better mentoring.

I feel very fortunate to have Chuck as a colleague.

Statistic	Value
Total Responses	25

North Dakota State University

College of Health Professions

School of Pharmacy Policy Manual

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BY-LAWS GOVERNING THE SCHOOL OF PHARMACY

GENERAL DESCRIPTION

The School of Pharmacy in the College of Health Professions, a major academic unit of North Dakota State University, serves the state and region through pharmacy education, research, patient care, and public service. The School is composed of two academic departments: the Department of Pharmacy Practice and the Department of Pharmaceutical Sciences. The pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE).

I. Governance

The Faculty of the School of Pharmacy (hereafter referred to as "The SOP") shall govern the SOP in accordance with the laws and regulations of the state of North Dakota, North Dakota State Board of Higher Education, and the policies and directives of the University.

II. Membership, Duties and Voting Privileges of the Faculty

A. Membership

Members of the Faculty will be instructors, lecturers, senior lecturers, assistant, associate, and professors of practice, research faculty, assistant, associate, and full professors who hold full-time, part-time or adjunct appointments in the SOP.

B. Duties of the Faculty

The immediate governance of the SOP shall be by the Faculty. Without limiting the generality of the foregoing statement, such power shall include adopting admission requirements; developing, evaluating, and implementing the academic programs of the SOP; determining requirements for graduation; recommending degree candidates; developing research and continuing education programs; and evaluating student progress and conduct.

C. Voting Membership

1. Voting membership of the SOP Faculty shall consist of members of the Faculty in the SOP who are benefited employees of the University.
2. Faculty members not meeting the above qualifications may be given a vote provided they have been approved for voting status by two-thirds of the eligible voting members present. A vote will be taken annually to determine voting status of non-full-time voting faculty.

III. Faculty Meetings

A. Frequency

1. Meetings of the Faculty shall be held at least one time per semester, or upon the written request of five members of the Faculty, or upon the call of the Dean or Associate Deans.
2. In lieu of additional meetings, business may be conducted via electronic notification and ballot providing a quorum number of electronic votes are cast.

B. Quorum

Fifty percent of the voting members of the Faculty shall constitute a quorum.

C. Order of Business

An agenda and associated documents shall be established by the Dean or the Dean's designee and shall be distributed one week prior to each meeting. Any member of the voting faculty may place an item on the agenda by contacting the Faculty Secretary. Robert's Rules of Order shall prevail at all faculty meetings.

D. Presiding Officer

The Dean shall be the presiding officer. In the Dean's absence or inability to preside, this function shall be exercised by an Associate Dean, or a faculty member designated by the Dean.

E. Secretary of the Faculty

The Secretary of the Faculty shall be elected by the Faculty annually. The Secretary shall be responsible to the Faculty for proper records, shall send notices of the meetings, and shall be responsible for presentation to the Faculty, in advance of any meeting, adequate information regarding matters to be considered. Further, the Secretary shall be responsible for maintaining and distributing the minutes of each faculty meeting, shall conduct all elections which require a written ballot, and shall keep a valid roster of the voting members of the Faculty.

F. Parliamentarian

A parliamentarian shall be elected by the Faculty annually and shall rule on all questions of parliamentary procedure.

IV. Committees (General Provisions)

The immediate governance of the SOP and its respective disciplines shall be by the Faculty. SOP level business shall be governed by SOP Faculty including but not be limited to the governance of SOP Standing Committees relative to their area of responsibility assigned by the SOP Faculty. Without limiting the generality of the foregoing statement, such power of the Faculty shall include adopting admission requirements; developing, evaluating, and implementing the academic programs of the discipline; determining requirements for graduation; recommending degree candidates; developing research and continuing education programs; and evaluating student progress and conduct. Such power and authority of the Faculty shall be executed in accordance with the rules, regulations, policies, and procedures established by the Faculty for the SOP and its respective disciplines. Ad-hoc committees of the Faculty may be appointed by the Dean of the SOP for such purposes as may be deemed necessary by the Dean or the Faculty. When appropriate all standing committees shall provide a progress report to the full faculty on any actions or informational items requiring faculty consideration.

V. School of Pharmacy Standing Committees

The faculty standing committees are empowered by the SOP faculty to reasonably apply the policies, procedures, and practices established by the SOP faculty for their given area of responsibility. The faculty standing committees are also responsible for bringing to the SOP faculty for discussion or action any agenda items that are considered substantive changes to the

existing policies, procedures, and practices that have the potential for significantly impacting faculty and students in the SOP.

A. Curriculum Committee

The Curriculum Committee shall consist of at least six faculty with a minimum of two faculty representatives from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences each serving a 3 year term with an option of term renewal. In addition, one student member each from the first, second, third, and fourth year professional pharmacy classes, and one pharmacy practitioner shall be voting members of the Committee. The Senior Associate Dean shall serve as an ex-officio member of the Committee. The Curriculum Committee shall function to manage the development, organization, delivery, evaluation, and improvement of the pharmacy program curriculum, including enhancement of teaching and student learning based upon assessment data generated by systematic reviews of curricular structure, content, process, and outcomes.

1. Experiential Education Committee

The Experiential Education Committee shall include at least 4 faculty, including the Director(s) of Experiential Programs, and one volunteer preceptor. The committee is a subcommittee of the Curriculum Committee. The functions of this committee are to review and make recommendations on all matters concerning experiential learning to ensure compliance with accreditation standards regarding experiential programs.

B. Admissions Committee

The Admissions Committee for the pharmacy professional program shall consist of at least two non-administrative faculty representatives from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences, and one community member, each serving a 3 year term with an option of term renewal. The Associate Dean for Student Affairs and Faculty Development shall chair the Committee. The Committee shall review and apply SOP of Pharmacy policies adopted by the faculty pertinent to admission requirements and enrollment restrictions in evaluating admission applications and making decisions on admission of students into the Pharmacy Professional Program. In addition, this Committee shall also concern itself with the development and implementation of an effective student recruitment strategy. The Department of Pharmaceutical Sciences and its faculty review applications for the graduate program and make recommendations to the Graduate SOP for admission of graduate students to the program.

C. Assessment Committee

The Assessment Committee shall include at least six faculty members (with a minimum of two from each of the Departments of Pharmacy Practice and Pharmaceutical Sciences) serving a 3 year term with an option of term renewal, the Director of Experiential Education Assessment and Outreach, one pharmacy student member, and one preceptor or alumnus. The Senior Associate Dean shall be an ex-officio member of the Committee. The functions of the Assessment Committee are to systematically assess student achievement of educational outcomes and institutional attainment of programmatic goals by a) developing, maintaining, executing and monitoring the PharmD Program Evaluation Plan; b) evaluating faculty assessment of student learning reports in conjunction with the Curriculum Committee course review process; and c) reviewing external feedback including, but not limited to, those from accrediting bodies and the University Assessment Committee. In addition, the Assessment Committee shall report

assessment results, provide recommendations for improvement, and identify critical assessment needs to the Faculty and University Assessment Committee.

D. Leadership Council and Executive Team

The Leadership Council is chaired by the Dean and consists of the SOP Executive Team (Dean, Associate Deans, Chairs of Pharmaceutical Sciences and Pharmacy Practice) and the Vice-Chairs of Pharmaceutical Sciences and Pharmacy Practice, Chairs of the SOP Standing Committees, and the SOP Faculty Secretary. The purpose of the Leadership Council is to recommend agenda items for the SOP faculty meetings, communicate with faculty important decisions made by the SOP Standing Committees, and to share information and collaborate with the Executive Team to address issues involving the SOP. The Executive Team shall be an advisory group to the Dean on administrative matters affecting the SOP. The Executive Team shall be responsible for periodic review and revision as well as administrative oversight of the SOP: Bylaws; Mission, Vision, and Core Values Statements; Strategic Plan; and Policies.

E. Academic Affairs and Student Progress Committee

The Academic Affairs and Student Progress Committee shall consist of a minimum of four members, including at least one from each academic department. The Senior Associate Dean shall chair the Committee. The Committee shall review and apply School of Pharmacy policies and standards established by the Faculty to evaluate and address academic issues (e.g. sanctions, suspension, termination) affecting pharmacy student progression and graduation requirements.

VI. Suspension of Rules

At any meeting of the Faculty, the rules of order governing the conduct of the meeting may be suspended by vote of the Faculty provided that not more than one-fourth of the voting members present object to such suspension and provided that a quorum is present.

VII. Amendment of the Bylaws Governing the Faculty of the SOP

These Bylaws may be amended at any meeting of the Faculty where a quorum is present by a two-thirds vote of the voting members present, provided written notice of the amendment with an accompanying statement of the purpose and effect was distributed to each member of the Faculty at least seven days prior to the meeting at which the amendment is to be moved, or provided the motion was originally presented at a preceding meeting of the Faculty.

Approved: April 23, 2018, November 13, 2018

Source: SOP Faculty Meeting Minutes

PHARMACY FACULTY RECOGNITION AWARDS

The pharmacy program has established the following awards to recognize individual faculty for achieving excellence in the area of teaching. These faculty recognition awards will be selected annually according to the following process:

TEACHER OF THE YEAR

The Teacher of the Year is selected by students in the didactic portion of the professional program to recognize an instructor who has demonstrated excellence and innovation in the classroom. The process for selection will be as follows:

1. Nominations for Teacher of the Year will be solicited from the P-1, P-2, & P-3 student body in early March by the Secretary for Academic Affairs.
2. Two weeks prior to nominations, selection criteria, procedure, and the date for in-class nominations will be communicated to the student body.
3. P-1 students will nominate a P -1 instructor; P-2 students will nominate a P-2 instructor; and P-3 students will nominate a P-3 instructor. Faculty having won the Teacher of the Year Award within the previous academic school year will be ineligible to receive the award.
4. Ballots will be collected and counted by the Secretary for Academic Affairs. The names of the instructors who score the most votes from each of the three classes will be forwarded to the Associate Dean for Student Affairs and Faculty Development (or a designee from the administrative council not nominated for the award) who shall serve as the Chair of the student selection committee. In the event of a tie among nominees, names of each "tied" nominee will be forwarded.
5. The Associate Dean for Student Affairs and Faculty Development will solicit, by class announcement or email, two student volunteer representatives from each of the P-1, P-2, P-3, & P-4 classes (for a total of 8 members) to serve on the student selection committee. In the event more than two students from a class volunteers to serve, their names will be placed in a hat and two names shall be drawn.
6. The Associate Dean for Student Affairs and Faculty Development (or designee) will convene the student selection committee to evaluate each of the nominated candidates using the following selection criteria:

Criteria	Evidence: The instructor
Expertise	Demonstrates a command of the subject material.
Communicates effectively	Presents information with clarity and provides clear well organized handouts.
High standards	Establishes and communicates high standards/ expectations for students.
Enthusiasm	Demonstrates enthusiasm for the subject matter.
Student Engagement	Encourages student participation.
Focus on higher order thinking skills	Encourages critical thinking.
Prompt feedback	Provides prompt feedback to students.
Accessible	Is available and willing to assist students.
Motivates	Motivates students academically and professionally.
Empathetic	Displays empathy and respect for students.

7. An open discussion of the nominees followed by student vote will be facilitated by the Associate Dean for Student Affairs and Faculty Development (or designee).
8. Each student on the selection committee will vote by written ballot for their preferred nominee by ranking them in order of preference and point value (e.g. if Dr. Bob is their top choice out of 5 candidates, they will assign him 5 points followed by 4 points to their next choice and so on). The Associate Dean for Student Affairs and Faculty Development (or designee) will tabulate the total assigned points and announce the nominee receiving the highest number of points.
9. The student selection committee will review the tabulated points and verify the final decision in discussion.
10. The Associate Dean for Student Affairs and Faculty Development (or designee) will inform the Dean of the selected candidate.
11. The selection process for Teacher of the Year must be completed by April 15th to ensure time for awards to be processed.

PRECEPTOR OF THE YEAR

The Preceptor of the Year Award is selected by students in the experiential portion of professional program and recognizes preceptors who have demonstrated a commitment to and excellence in their approaches to student learning. One faculty preceptor and one volunteer preceptor will be selected each year for the award. The process for selection will be as follows:

1. P4 students may submit written or e-mail nominations to the Director of the Experiential Program at any time during the year. The Director of the Experiential Program will send a final reminder to students during the 7th rotation, encouraging them to submit nominations if they have not done so.
2. The committee of P4 students will be selected by the rotations committee. The students will come from a volunteer pool established through the response to the email noted in item # 1. These students, along with the Experiential Director in attendance, will meet and select the award recipients.
3. The selection will be based on the nominations and recommendations from the entire class, and will not necessarily be based on raw numbers of votes.
4. The award recipient results will be forwarded to the Dean for final approval by March 15 of each year to ensure time for the awards to be processed.
5. Award winners are not eligible for consecutive year awards.

Approved: 5/5/99

Revised: 12/10/03, 8/11/04; 12/16/04; 1/28/09

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

REPETITION OF PRE-PHARMACY CORE COURSES

The total number of pre-pharmacy core courses which may be repeated shall be limited to three.

The grade received during the student's final attempt for any core pre-pharmacy course will be used in evaluation for admission.

A withdrawal is not considered an attempt.

A core course is one that is included in the GPA for admission purposes.

Approved: 4/26/95

Revised: 9/5/96; 4/2/97; 11/12/03; 3/26/12

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

MINIMUM GRADE POINT AVERAGE

A minimum cumulative GPA of 3.0 is required for consideration for admission review into professional pharmacy program.

Approved: 10/27/93

Revised: 4/13/94; 5/8/03

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

POINT SYSTEM FOR EVALUATION OF ADMISSION TO THE PHARM.D. PROGRAM

Students will be given information regarding general admissions criteria (grades, PCAT, essay/interview) as well as averages of the last admitted class. Evaluation of qualified candidates shall remain confidential within the admissions committee.

Approved: 3/3/99

Revised: 6/28/99; 5/9/00; 6/12/01; 12/18/02; 2/12/03; 11/12/03; 9/2/04; 11/30/05; 3/26/12

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

PROGRAM CAPACITY

Eighty five students are accepted into the pharmacy program; and up to eight of those slots may be specifically dedicated to enhancing the diversity of the pharmacy program.

Approved: 2/21/92

Revised: 3/3/99; 3/23/00; 3/06/02, 5/8/03, 11/30/05; 3/26/12

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

RE-APPLICATION

A student who has made application to the professional program but is not accepted, fails to complete the application procedures, or fails to enroll after being accepted, may reapply for admission to the professional program. Students may apply to the program twice. All academic and admission requirements in force at the time of his/her application must be met.

Students who desire to utilize previous scores on the PCAT must notify the Admissions Secretary in writing prior to the deadline for applications.

PCAT scores will be accepted up to three years from the date the test was written.

Approved: 10/27/93

Revised: 2/17/99, 12/10/03

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

READMISSION

Any student desiring readmission must file a petition with the Chair of the Academic Affairs Committee of the College of Health Professions at least 60 days prior to the beginning of the semester in which readmission is sought. Students must seek readmission to the professional program in Pharmacy through the Admissions Committee.

Any professional student who is not enrolled in the College of Health Professions for a period of one calendar year must file a petition with the Chair of Academic Affairs Committee within the College of Health Professions 60 days prior to the beginning of the program.

Approved: 10/27/93

Revised: 3/3/99

Housekeeping: 12/3/14; 4/29/15

Source: Faculty Meeting Minutes

CURRENT COMPETENCY IN COURSEWORK

Coursework in the areas of science and mathematics must be no more than seven years old at the time of application to the professional program.

Coursework presented in these areas that is older than seven years must have current competency demonstrated.

Current competency may be demonstrated by:

- A. Retaking a portion of the series in question, i.e. 122 of 121/122 Chem series;
- B. Enrolling in a formal audit that is indicated on a student's official transcript;
- C. Challenging coursework through the department in question; or
- D. Meeting with faculty in the areas of Science or Mathematics and having them determine current competency.

The means by which current competency is met must be approved by the Chair of the Pharmacy Admissions Committee. Students who intend to meet current competency requirements using item C or D must receive approval from the Chair of Pharmacy Admissions Committee prior to undertaking the current competency.

Approved: 12/10/2003

Revised: 11/28/2012

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

PHARM.D. STUDENT TRANSFER

Circumstances may warrant that a student enrolled in an ACPE-accredited college or school of pharmacy may seek to transfer to North Dakota State University's (NDSU's) Doctor of Pharmacy (Pharm.D.) program. Any individual seeking to transfer into NDSU's Pharm.D. Program must follow the procedures outlined below.

1. Students must currently be enrolled in an ACPE-accredited Pharm.D. Program. Students enrolled in non-pharmacy degree programs, or those enrolled in bachelor or masters-level pharmacy programs (ACPE-accredited or otherwise) are not eligible to transfer into NDSU's Pharm.D. Program. Those students must apply directly to the entry level Pharm.D. Program using the NDSU Pharm.D. Supplemental Application.
2. The student must submit a formal application to both North Dakota State University, and be accepted to study at the University. Applications to the University as a whole must be completed according to the guidelines established by the University (www.ndsu.edu/admission).
3. Students accepted to study at NDSU may subsequently submit a formal transfer request to the NDSU College of Health Professions, Pharmacy Admissions Committee. A formal request will contain (at a minimum) the following information:
 - i) A formal letter or equivalent written statement outlining the reasons for requesting the transfer;
 - ii) Documented evidence from the student's current institution (typically a formal letter on university letterhead written by the Dean of the current institution) demonstrating that the student is currently in good academic and professional standing;
 - iii) Documented evidence (including, but not limited to include official transcripts of all college work including pharmacy transcripts, PCAT scores and three letters of evaluation/reference from faculty members of a professional pharmacy program) that the student meets all admission requirements for NDSU's Pharm.D. Program.
4. The Pharmacy Admissions Committee will review transfer applications twice per year. Individuals wishing to transfer and begin classes in the fall semester must submit the entirety of their application materials by June 1 of that academic year. Students intending to transfer and begin classes in the spring semester must submit the entirety of their application materials by October 15 of the preceding semester/calendar year.
5. The Pharmacy Admissions Committee will convene to evaluate completed transfer applications within 30 days of the application deadline in question. If, upon review of the application materials, the Pharmacy Admissions Committee believes that the student's application merits further consideration, the Admissions Committee will schedule an interview with the applicant. The interview will be conducted within 45 days of the application deadline in question. The Pharmacy Admissions

Committee may exercise discretion in choosing the medium (in-person, telephone, video-conferencing, etc.) for, and the content of, the interview.

6. All decisions on transfer applications are made exclusively by the Pharmacy Admissions Committee. Decisions will be based on factors which include, but are not limited to: the student's academic record, an evaluation of the circumstances leading to the transfer request, the student's performance during the interview (if granted by the Pharmacy Admissions Committee), available space in the Pharm.D. Program, and the admission standards currently used to evaluate traditional Pharm.D. applicants. The Pharmacy Admissions Committee will generally not accept transfer applicants whose credentials fall substantially below those of the 85 students admitted to the entry-level Pharm.D. Program in the previous year. The Pharmacy Admissions Committee will generally not admit any transfer students if such admissions increase class sizes beyond the maximum capacity identified under College Policy 2.24.
7. The Associate Dean for Student Affairs and Faculty Development (who serves as Chair of the Pharmacy Admissions Committee) will notify the student in writing within 60 days of the application deadline regarding the outcome of the application.
8. In the event that the students request for a transfer is granted, the Pharmacy Admissions Committee will forward the student's academic transcript and contact information to the Senior Associate Dean. The Senior Associate Dean will review the student's transcript and collect other relevant information in order to assess whether (and if so, how much) credit may be granted for courses which are applicable to the courses outlined in the curriculum of the NDSU Pharmacy Program. This assessment will be completed at least one week prior to the start of the semester in which the student is set authorized to attend classes.

Students should be aware that not all ACPE-accredited Pharm.D. Programs have the same curricula. As a result, student should anticipate that some courses may not transfer and/or that remedial coursework may be necessary.

Students are responsible for ensuring that all information necessary to complete the assessment is provided to the Senior Associate Dean in a timely fashion. Failure to do so will result in fewer credits accepted for transfer and additional coursework to be completed by the student at NDSU.

9. The student must complete and submit a copy of the NDSU Student Conduct Policy prior to registering for any coursework at NDSU. The student must also provide documented evidence of health insurance, apply to the North Dakota Board of Pharmacy for a Pharmacy Intern License, successfully pass a multi-state background check and complete all other relevant paperwork/tasks expected of incoming Pharm.D. students (transfer or otherwise) prior to registering for any coursework at NDSU. Failure to do so will automatically lead to a revocation of the student's admittance. The student also is made aware the academic, professional and time-limit standards outlined in the College Policy Manual (www.ndsu.edu/healthprofessions/college_information/policy_manual/) which govern the student's continued participation in the NDSU Pharm.D. Program.

Approved: 10/21/2010

Housekeeping: 12/3/2014; 4/29/15

Source: Faculty Meeting Minutes

ACADEMIC REMEDIATION and REPETITION OF PROFESSIONAL COURSES

Professional pharmacy students failing to achieve a minimum grade of "C" in a graded course or "P" in a pass/fail course may be offered remediation at the discretion of the course instructor(s). Remediation is a privilege and should only be offered to students with regular course attendance and participation. Remediation is defined as any change in grade based on the established grading criteria and process that applies to all students.

Remediation will be tailored to the individual student and may include, but is not limited to, one or more of the following in conjunction with academic advising: re-examination, additional course work, independent study, and campus tutoring. If remediation is offered, it is the responsibility of the instructor to ensure the student demonstrates competence in the course material. Prior to offering remediation, the course instructor must notify the Senior Associate Dean with the student's name and proposed plan of remediation. The Senior Associate Dean will be responsible for tracking remediation opportunities offered to all professional students. Students will only be allowed to remediate one course per semester.

If students do not successfully complete a professional pharmacy course (i.e. grade less than a C), and remediation is not offered, they may repeat the course. Withdrawal (for reasons other than extenuating conditions*) from a professional pharmacy course with a grade less than a C is considered the same as a failure.

Failure to complete all Co-Curriculum semester requirements is considered a professional pharmacy course failure.

Students are limited to a total number of three (3) course failures and/or course remediation. A fourth occurrence of receiving a grade less than a C (or withdrawal due to a grade less than a C) or course remediation in a professional pharmacy course, didactic or experiential, will result in termination from the pharmacy program.

For example the established standard would result in dismissal from the professional pharmacy program if a student had the following results Remediation of 2 courses, failure of 1 course, and failure of 1 APPE.

Compliance with the University Class Attendance Policy 333 is still required by instructors. Appeals to this policy may be submitted to the Pharmacy Academic Affairs and Student Progress Committee which may grant exceptions due to extenuating circumstances.

*All extenuating circumstances must be approved by the Pharmacy Academic Affairs and Student Progress Committee before the withdrawal takes place.

Approved: 9/21/2011, 5/7/2014, 11/14/2019
Housekeeping: 12/3/2014
Source: Faculty Meeting Minutes

MINIMUM GRADE REQUIREMENT FOR PHARMACY COURSEWORK

A grade of C or better is required in **all** required courses in the pre-pharmacy and professional curricula (courses listed by name or number).

The College does not permit any course required with name and number to be taken pass/fail, with the exception of labs offered only this way. Course work utilized for NDUS general education credits must be taken for a letter grade.

Approved: 5/28/91

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

MAXIMUM TIME FRAME FOR COMPLETION OF ENTRY-LEVEL AND POST-B.S.

Eight (8) years is the maximum time frame to complete all requirements for the professional Pharm.D. Program. This policy does not apply to students enrolled in Pharm.D. dual degree programs.

Approved: 4/16/92

Revised: 3/3/99; 5/08/03; 2/23/10

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

PREREQUISITES FOR PROFESSIONAL COURSES

Prerequisites for all courses taught in the professional curriculum are to be established by the faculty and any changes made in prerequisites for professional program must be approved by the faculty.

All prerequisite course work in the professional program, whether offered from within or without the College of Health Professions, must be completed with a minimum grade of C in order for the student to progress.

It is the responsibility of individual course instructors to check and enforce their own course prerequisites.

Approved: 5/8/92

Revised: 2/18/94, 8/26/94 (as corrected 9/16/94), 12/10/03

Housekeeping: 12/3/14; 4/29/15

Source: Faculty Meeting Minutes

**PHARM.D.
Policy 3.24**

Approved: 10/27/93

Revised: 5/2/01, 12/10/03, 11/28/12, 12/13/12

Housekeeping: 12/3/14

Removed: 11/14/2019 – incorporated into 3.20

Source: Faculty Meeting Minutes

ADVANCED PHARMACY EXPERIENCE (APE)

1. Students will consider all information and activities relating to a pharmacy and patients as confidential and, under no circumstances, will knowledge so acquired be disclosed to unauthorized persons. Failure to comply with the rule will result in automatic dismissal from the program.
2. Students will be expected to be engaged in purposeful, learning activities for a minimum of 40 hours per week.
3. Students will not request or accept pay or remuneration. With the prior approval of the Experiential Program Director, students may accept from the preceptor/pharmacy reimbursement for room, and/or board and/or commuting expense.
4. Students are required to carry at least minimal limits of professional liability insurance and health/medical insurance coverage. Copies of this information will be kept in the Office of Experiential Programs.
5. During the Advanced Pharmacy Experience a maximum of 3 credits of elective coursework may be taken provided the course(s) are in the evening or otherwise pose no conflict.
6. Students may accept jobs not related to rotation experiences provided that such employment **does not** interfere with Advanced Pharmacy Experiences.
7. Students will not be assigned a Community/Hospital Pharmacy Experience Rotation in a pharmacy where the student has previously worked for a salary.
8. Students will be limited to no more than three 5-week Advanced Pharmacy Experiences out of the tri-state area (ND, SD, and MN).
9. Students are limited to no more than **one** 5-week Advanced Pharmacy Experience for which the College provides a stipend. Students must fill out a "Study Abroad Form" for the International Rotations.
10. Prior to the start of their next rotation, students are required to forward a copy of their resume and a cover letter to the preceptor by the Thursday or Friday of the second to the last week of the prior rotation. A phone call, the week prior to the next rotation, is also recommended so that questions such as where to report, what time, where to park, proper attire, are answered.
11. Students will present a neat, professional appearance at all times. Dress will be in conformation with the regulations of the institution/pharmacy. While on duty students will display their name badge provided by the College.

12. The student will comply with all regulations and practices specified by the pharmacy/institution. The student shall be punctual, perform all assigned tasks willingly and cheerfully, and maintain a friendly and professional relationship with employer(s), patients, and other health care providers.
13. Students must receive active immunization against Hepatitis B. If this immunization cannot be completed, the student must sign and submit to the Experiential Director, a "Waiver of Liability" form. A TB test is required on a yearly basis.
14. A criminal background check, on each student, will be completed prior to the start of rotations. Records will be kept on each student in the Experiential Programs office.
15. The College of Health Professions retains the right to remove a student from an Advanced Pharmacy Experience site and reassign the student if, in the opinion of the Experiential Program Director, and through consultation with the Dean or Pharmacy Practice Department Chair, an incompatibility exists between the student and the preceptor or other personnel.
16. Students must be registered interns in North Dakota as well as in the state(s) in which they practice.
17. Students may complete no more than two "like" rotations, i.e. no more than 2 elective psychology rotations or no more than 2 Community Advanced Pharmacy Experience rotations.
18. Students will be limited to one non-clinical rotation as part of the 45 week Advanced Pharmacy Experience.
19. The Rotations Committee has final authorization regarding the student's rotational selections and evaluation of new rotation sites. All recommendations for new sites will be forwarded to the Department of Pharmacy Practice for final approval.
20. The Annual Leave Form will be utilized for all time off (sick, personal, professional). A student is allowed 5 personal days during the 45 weeks, with no more than 2 days occurring during a 5 week rotation.
21. Students are responsible for the completion of the Advanced Pharmacy Experience evaluation forms. These forms are required for the processing of the semester grade.
22. Personal phone calls should be scheduled during break times. Avoid making or receiving personal telephone calls, especially in the prescription work designated area.
23. Upon failure of one or more rotations in the experiential year, a student will be required to successfully complete a remediation that will be designed to meet the individual student needs. All components of remediation must be successfully completed before return to rotations. Each plan will be based on the student's needs and stipulate a time line based on plan criteria. If the student does not successfully complete the mediation plan, College policy 3.03, Right to Terminate Enrollment, will be considered.

24. If a student is unsuccessful in completing the requirements of any three Advanced Pharmacy Experience rotations, the student shall be permanently dismissed from the College of Health Professions.
25. During any Advanced Pharmacy Experience rotation, if a student puts patients, preceptors or the practice at risk, that student may be immediately dismissed from the rotation and given a failing grade for that rotation.

Eligibility Requirements

To be eligible for Advanced Pharmacy Experience registration all students must have completed all Pharm.D. third year coursework, earning a grade of "C" or better. Students must also hold licensure either as a registered pharmacist or registered intern in the state of North Dakota, as well as in any state where all or any part of the Advanced Pharmacy Experience will be completed.

Rotation Changes

If a student wishes to make a change in the established schedule, the student must submit a completed "Schedule Change Request". This form requires the approval and signature of both preceptors involved in the change. A copy of the completed form must be sent to the Experiential Program Director.

Annual Leave Form

The "Annual Leave Form" will be utilized for all time off (sick, professional and personal).

A student is allowed 5 personal days during the 45 weeks, with no more than 2 days occurring during a 5 week rotation. Preceptors have discretion to approve or deny requests for personal leave. A copy of the form requires the signature of the preceptor.

Holidays

All students are allowed time off during official University holidays and spring break. Official University Holidays are as follows:

New Year's Day
Martin Luther King, Jr., Day
Presidents' Day
Good Friday
Easter Monday
Memorial Day

Independence Day
Labor Day
Veteran's Day
Thanksgiving Day
Thanksgiving Friday
Christmas Day

Storm Days

In the Fargo-Moorhead area, students are not expected to report to Advanced Pharmacy Experience sites if classes at the University have been cancelled due to inclement weather conditions. Students located outside the F-M area shall follow the local public school policy, and in case of closure, shall contact their preceptor directly for instructions.

Preceptor Evaluation

The "Student Evaluation Form", to be completed by the preceptor. The preceptor is required to:

1. Provide the student with verbal constructive feedback, midway and throughout the rotation.
2. Provide a written "Student Evaluation" and constructive feedback at the conclusion of the rotation.
3. Provide a copy of the written "Student Evaluation" to the student.

4. Email, mail or fax a copy of the written "Student Evaluation" to the Director of Experiential Programs within one week following the completion of each rotation.

Student Evaluation

A Student Evaluation must be completed for all nine (9) rotations and emailed, mailed or faxed to the Director of Experiential Program within one week following the completion of each rotation.

It is recommended that this evaluation be discussed with the preceptor during the feedback session at the conclusion of the rotation, as comments and observations will provide the preceptor with invaluable feedback regarding his/her site, service, and individual performance as a preceptor.

Grading System

The Grading System used to monitor academic performance for the Advanced Pharmacy Experience consists of:

P (Pass): Indicates that the student has successfully completed the work of the Advanced Pharmacy Experience.

F (Fail): Indicates either that student performance was unsatisfactory or that the student did not complete the work of the Advanced Pharmacy Experience.

Approved: 8/11/04

Housekeeping: 12/3/14; 4/29/15

Source: Faculty Meeting Minutes

PHARM.D. PROFESSIONAL ELECTIVES

A minimum of 6 professional elective course credits, that permit exploration of and/or advance study in areas of professional interest, are required for graduation with the entry-level Pharm.D. degree. Professional elective courses are subject to the following rules:

1. Professional elective courses must be taken while enrolled in the entry-level Pharm.D. program (e.g. beginning Fall Semester P1 year). These courses must be completed prior to the beginning of the P4 year.
2. Professional elective courses must be taken for a letter grade, and a grade of C or better (pass for a pass/fail course) is required to meet the requirements.
3. The Pharm.D. handbook contains a list of pre-approved professional elective courses.
4. A student may take a professional elective course that is not included in the pre-approved list only after (1) consultation with his/her academic advisor, AND (2) approval of the course by the Pharm.D. Curriculum Committee.

The necessary steps to take a course that is not included in the pre-approved professional elective course list is as follows:

1. The student must meet with his/her advisor and demonstrate that the course “permits exploration of and/or advance study in areas of professional interest”. This request must be made to the advisor by December 1 for upcoming spring semester courses, and April 1 for upcoming summer and fall semester courses.
2. If the advisor supports the student’s elective course choice, then the advisor shall petition to the chair of the Curriculum Committee to approve the course.
3. Curriculum Committee will obtain a syllabus for review and contact the instructor to address other criteria as needed.
4. Upon receipt of all required information, the Curriculum Committee shall review the information, determine the status of the request, and inform the student, and advisor, of the outcome of the petition.
5. If the Curriculum Committee approves the course, the course shall be included in future revisions of the pre-approved professional elective course list.

Faculty approval March 10, 2004

Revised & approved: December 13, 2005; November 1, 2006; May 3, 2017;

October 25, 2019

Housekeeping: 12/3/2014

Source: Curriculum Committee Minutes

DOUBLE COUNTING OF CREDITS

A maximum of nine (9) semester credits which are required in the BS in Pharmaceutical Science/Pharm.D. degree may be double counted from any other degree program. This policy shall apply to students who have obtained a previous graduate degree or are in process of obtaining a graduate degree and then choose to pursue the Pharm.D. degree. It shall not apply to students enrolled in the joint Pharm.D./Ph.D. Program.

Any credits beyond this limit must be fulfilled with additional elective courses in compliance with the Policy on Electives. A plan of study must be filed with the Curriculum Committee and the Office of Registration & Records for any student who deviates from the standard curriculum. The plan must fulfill all curricular and credit requirements. A copy of the plan of student for the graduate degree will also be filed with the Curriculum Committee.

Approved: 3/10/04

Housekeeping: 12/3/14

Source: Faculty Meeting Minutes

STUDENT COMPLAINT PROCEDURES

The Accreditation Council for Pharmacy Education (ACPE), at the behest of the U.S. Secretary of Education, requires all accredited pharmacy programs to establish, implement and assess a formal complaint policy for students. More specifically, all accredited colleges or schools of pharmacy must establish a comprehensive policy with a simple set of procedures whereby all students enrolled in the College (and the pharmacy program in particular) can submit and resolve a complaint about the educational process. While such procedures do not always produce an outcome that meets the student's preferences, they do ensure that students have access to an equitable and efficient means to remediate their complaints. The complete set of ACPE standards regarding student complaint policies can be found on pages 32-33 (Standard 20) of the following website http://www.acpe-accredit.org/pdf/ACPE_Revised_PharmD_Standards_Adopted_Jan152006.pdf.

The NDSU School of Pharmacy takes student complaints very seriously. Our goal is to ensure that students have access to transparent, due process in a manner that leads to an appropriate resolution of the complaint. To that end, a copy of the NDSU School of Pharmacy policy relating to this issue is available on its website at www.ndsu.edu/pharmacy. Students who have difficulty accessing this webpage may also obtain a copy of the complaint policy in the Dean's Office (Sudro Hall, Room 123). A discussion of this policy shall take place annually during the orientation process for first professional year students.

Each student complaint will be appropriately documented and investigated. A chronological record of each complaint, including the nature of the complaint, written records of the complaint procedure and the final outcomes of the resolution process shall be maintained in the Office of the Dean, and shall be available for review by ACPE or its representatives upon written request or in the process of an on-site evaluation visit.

Student complaints generally fall within two major categories: complaints about unfair grading and all other, non-grade-related complaints. Student complaints about grades are generally handled at the level of the University, since grades are usually administered through the NDSU Office of Registration and Records. Other student complaints remain under the purview of the individual colleges within NDSU.

Student Complaints Regarding Grades **University Grade Appeal Policy**

NDSU has an established policy regarding complaints about grading, otherwise known as "grade appeals". The full grade appeal policy (section 337), which includes hearing procedures, is available at www.ndsu.edu/fileadmin/policy/337.pdf. While students actively considering a grade appeal are referred to the aforementioned website for the specific details of the policy, a summary of the policy is outlined below.

With the exception of incomplete grades, a course grade is considered final unless an appropriate appeal is filed by the student. Grade changes are also considered only for those students who have not yet earned a degree for which the course in question was applied.

For a student who has reason to believe that they have been issued an incorrect or inappropriate grade, he/she must initiate a request for a change of a grade with the instructor within fifteen (15) instructional days of the first day of the semester immediately following the semester in which the grade was awarded. For Spring Semester courses, the request may be made within fifteen (15) instructional days of the start of Fall Semester, if the student is not enrolled for a Summer term in the same academic year.

A grade appeal is formally initiated when the student presents the Grade Appeal Form to the instructor. If there is an unsatisfactory decision, the student must consult the Department Head, and the Dean or a designated college committee, proceeding from one level to the next only after an unsatisfactory decision of the conflict at that level. In the event that the instructor is also the Department Head or Dean, he or she

need only be consulted in the capacity of instructor. In the event of an unsatisfactory decision within the college, the student may submit a formal written appeal to the Grade Appeals Board Chair. Such an appeal shall be made within fifteen (15) instructional days after conclusion of the college proceedings as stated above.

Non-Grade Student Complaints

Pre-professional and professional pharmacy students who have a non-grade-related complaint can seek resolution of that complaint through the following procedures. It is important to note that these procedures represent the sole avenue for student complaints regarding non-grade-related issues, including (but not limited to) ACPE standards, policies and procedures. Additionally, because the pharmacy program spans multiple departments, the non-grade complaints are handled through the Dean's Office, rather than by the departments themselves.

1. The student(s) or, in cases where student anonymity is required, their advocate (also known as the "plaintiff(s)") will file a formal written complaint (delivered through the postal service or NDSU email) to the Dean's Office in the NDSU School of Pharmacy.
2. The written complaint must include a description of the issue, policy, procedure or ACPE standard in question. It must also summarize the argument of the plaintiff (including the grounds for the appeal or complaint) and provide a reasonable amount of evidence supporting the claim.
3. Upon receipt of the written complaint, the complaint will be assigned to either the Senior Associate Dean (as the Chair of the College Academic Affairs Committee) if the complaint is primarily academic in nature, or the Associate Dean for Student Affairs and Faculty Development (as the Chair of the College Student Affairs Committee) if the complaint is primarily non-academic. The plaintiff(s) will receive email notification (via NDSU email) within forty-eight hours of the receipt of the complaint concerning the identity of the Associate Dean handling the complaint.
4. The Senior Associate Dean or Associate Dean for Student Affairs and Faculty Development or, if a non-academic issue, Student Affairs, shall convene a meeting of College Academic Affairs or, if a non-academic, Student Affairs Committee to review the complaint. Because the procedures for both Associate Deans and Committees are similar in procedure, they will henceforth be referred to generically as "Associate Dean" and "Committee", respectively. The Committee meeting shall occur within thirty days from the time that the Associate Dean receives the written complaint.
5. Once the Committee has met, the Associate Dean shall prepare and submit a formal, written reply to the student(s) based on the recommendation of Committee. The reply shall include an evaluation of the complaint, a description of any violations, and a proposal for any necessary corrective action. The reply will be sent through official NDSU delivery methods (i.e., the postal service, campus mail and/or the NDSU email system) within fifteen business days from the time that the Committee makes a decision.
6. Decisions of the Committee that demonstrate arbitrary and capricious treatment, or that are fundamentally inappropriate in the eyes of the plaintiff(s) may be appealed to the Dean of NDSU School of Pharmacy. In such cases, the student(s) file an appeal using steps one through three outlined above, except the written complaint would be addressed directly to the Dean. The written complaint would also identify and provide evidence indicating that the Associate Dean and/or the Committee acted in an arbitrary, capricious or otherwise inappropriate manner.
7. If unsatisfactory resolution occurs after the appeal to the Dean, a final appeal may be made to the Provost. Once again, the student(s) must file an appeal using steps one through three outlined above, except the written complaint would be addressed directly to the Provost, rather than the Dean, and would provide evidence substantiating the claim of unfair treatment at prior procedural levels.

Approved: 4/21/2011

Housekeeping: 12/3/2014; 4/29/15

Source: Faculty Meeting Minutes

DOCTOR OF PHARMACY (PHARM.D.) STUDENT TECHNICAL STANDARDS

The North Dakota State University College of Health Professions' (NDSU CHP) mission is to educate students and advance research and professional service in pharmacy, nursing, allied sciences, and public health. As a corollary to this mission, the Doctor of Pharmacy (Pharm.D.) program seeks to train students who have the ability, interest and work ethic necessary to be eligible for licensure, and embark upon a successful career as a health care professional. Thus, the Pharm.D. professional program requires students to undertake the **full set of activities** that are necessary to complete their program of study.

The goal of every licensed pharmacist is to provide **safe** and **effective** care to patients. In order to provide that care, individuals must have the physical, cognitive and social skills necessary to learn, practice and master each of the competencies of one's profession. Failure to demonstrate these competencies not only endangers the patients under the pharmacist's care, but also impacts the ability of other providers to provide safe and effective patient care.

Therefore, the following technical standards represent competencies necessary to complete the Pharm.D. professional program and provides additional guidance to the College Student Technical Standards Policy 3.11 for students. Students must be able, with or without reasonable accommodations, to consistently demonstrate these competencies. Students who fail to demonstrate these competencies are ineligible for admission or progression in the NDSU Doctor of Pharmacy (Pharm.D.) professional program. The technical standard competencies are organized into five general categories:

1. Perception/observation
2. Communication
3. Motor/tactile function
4. Intellectual, conceptual, integrative, and quantitative abilities
5. Behavioral and Social Attributes

1. **Perception/Observation Competencies**

Students must be able to utilize their senses and mental abilities to perceive and observe information presented through:

- Written material
- Audiovisual material
- Demonstration
- Large-group lectures
- Small group discussions and presentations
- One-on-one interactions
- Laboratory experiences
- Patient encounters (at a distance or close at hand)
- Procedures

2. Communication Competencies

Students must be able to communicate effectively and efficiently (in English) using nonverbal, verbal, and writing strategies with faculty members, other members of the healthcare team, patients, families, and other students, in order to:

- Produce written and oral communication
- Elicit information
- Convey information
- Clarify information
- Create rapport
- Work collaboratively
- Develop therapeutic relationships
- Demonstrate computer literacy

3. Motor/Tactile Function Competencies

Students must have sufficient motor function, skills, and tactile ability to execute basic tasks in the training and provision of patient care. This includes coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision in order to:

- Attend and participate in classes, groups, and activities which are part of the curriculum.
- Conduct basic laboratory procedures and tests.
- Perform basic, non-sterile compounding.
- Demonstrate aseptic technique.
- Examine patients (including inspection, auscultation, palpation, percussion, and other diagnostic maneuvers).
- Administer immunizations, perform cardiopulmonary resuscitation, perform palpitation, auscultation, and percussion.
- Provide patient care appropriate to the circumstances.
- Perform in a reasonably independent way in potentially high speed/high demand/emergency environments.

4. Intellectual, Conceptual, Integrative & Quantitative Competencies:

Student must be able to demonstrate higher-level cognitive abilities, which include:

- Memory
- Rational thought
- Visual-spatial comprehension
- Conceptualization
- Application
- Measurement
- Calculation
- Analysis
- Representation (oral, written, diagrammatic, three dimensional)
- Organization
- Synthesis
- Clinical reasoning
- Ethical reasoning

5. **Behavioral and Social Competencies**

Students must consistently demonstrate attributes of professionalism, including:

- Empathy, compassion, integrity, and respect for others.
- Preparation, initiative, and accountability consistent with a commitment to excellence
- Commitment to legal and ethical principles pertaining to the provision of patient centered care.
- Mindfulness of the environment, recognizing that one's professionalism is constantly evaluated by others.

Reasonable Accommodations under the Americans with Disabilities Act (ADA)

The College strongly encourages any student who suspects that he or she may have a disability to contact the NDSU Office of Disability Services for guidance concerning the steps that are necessary to document and verify the nature and extent of the disability. Consistent with NDSU and Federal policies, students with documented evidence of disabilities may request reasonable accommodations. However, such requests are not reasonable if they disrupt, are detrimental to and/or endanger patients, students, co-workers and/or instructors, or otherwise cause a fundamental alteration to the program.

Failing to Meet, Reporting and Adjudicating Technical Competencies

Applicants and students of the Pharmacy Doctorate professional program who consistently fail to demonstrate the competencies identified above are ineligible for admission or progression in the program. Students who are admitted to the Pharmacy Doctorate professional program and who **realize** (either through their own efforts or as demonstrated by a licensing board, a preceptor or a faculty member in the program) that they do not (or no longer) **consistently** demonstrate the requisite technical competencies to be eligible for licensure have an ethical obligation to self-report that information to the College's administration (i.e., the appropriate department chair, the Senior Associate Dean and/or the Associate Dean for Student Affairs and Faculty Development). **Once realized** (through own awareness or as reported to them by a licensing board, faculty, or preceptor), failure to self-report a **consistent** lack of technical competencies represents a violation of the Student Conduct Policy (College Policy Manual, Policy 3.01).

Approved: 2/17/15

Housekeeping: 4/29/15

Source: Pharm.D. Instructional Faculty Meeting

EXAMINATION ADMINISTRATION

The purpose of this policy is to provide expectations for student conduct related to examinations and ensure examinations given at the School of Pharmacy are adequately and consistently administered. Aside from maintaining academic integrity, examination procedures prepare the student for the stringent expectations of the professional licensure process.

I. Technology Requirements

1. Students must possess an iPad and accessories that meet the School of Pharmacy requirements.
2. Students must install and maintain a current version of iOS and the electronic testing software utilized for ExamSoft exam delivery.
3. Students should be familiar with their iPad, testing software, and instructions prior to downloading an examination.
4. Students are expected to:
 - a. Have an A/C power cord available AND a fully charged battery (at least 2 hours) for cases in which there is a power disruption during the examination OR an electrical outlet is not near the student's assigned seat.
 - b. Ensure that the internal clock is set to the correct date and time (CST/CDT).

II. Timing and Attendance at Examinations

1. Students requiring accommodations are to coordinate with the office of Disability Services prior to the delivery of the examination (NDSU Policy Manual Section 606).
2. Students are expected to be present for all examinations unless otherwise stated by the course instructor. All absences require appropriate documentation and instructor approval (NDSU Policy Manual Section 333).
 - a. Students missing an examination due to an EXCUSED absence will be permitted to take a make-up examination timed at the discretion of the instructor.
 - b. Students missing an examination due to an UNEXCUSED absence may be granted the privilege of taking a make-up examination; however, the student will be subject to a penalty on their exam score.
 - c. In any case where a delayed or makeup examination is necessary, a comparable but different examination may be given. Faculty may assess in a different format from the original exam (e.g. multiple choice may be replaced with essay questions).
 - d. All delayed or makeup examinations must be taken under direct observation of a proctor. The proctor may be a teaching assistant, graduate assistant. The proctor may also directly observe with use of a surveillance camera.
3. Students must be on time for examinations. Students arriving more than 15 minutes late, without proper justification, will be subject to penalty. Student's arriving late must take the examination in a location determined by the individual administering the exam. Unless extenuating circumstances are cause for the delay and were unavoidable, they will receive no additional time.
4. Examination start times will not be delayed due to a hardware or software problem with a

student's iPad. Students encountering a technical issue during an exam should notify the individual administering the exam. See *Technology Issues*.

5. Students are responsible for bringing their iPad to the examination room with the exam file already downloaded. Additional time will not be granted for downloading exam files when it was available prior to the exam session.
6. If a student has examination accommodations approved by the Office for Disability Services, the exam must be taken in the facilities of the Office for Disability Services and at the same time as the regular class examination (if time permits).

III. Examination Procedures

1. Faculty are responsible for being attentive to students during an exam.
2. Students may be asked for identification or sign an attendance log at any time.
3. Students are expected to maintain a decorum and demeanor consistent with accepted academic and professional standards at all times during examinations (NDSU CHP Policy Manual Section 3.9). Lack of professional decorum may result in dismissal from the exam, which will be considered an unexcused absence.
4. Students may be randomly seated during an examination.
5. An examination may take place during a time that is not part of their regular course schedule. This will be determined by the faculty and will be conveyed in the course syllabus.
6. Students are allowed ONLY the following items at their seat:
 - a. iPad devoid of taped-on notes or markings that could be construed as "cheat sheets"
 - b. Power adapter
 - c. Standard (non-mechanical/non-refillable) #2 pencils
 - d. The following items may be allowed if deemed necessary by the course instructor:
 1. Scratch paper if allowed would be provided by the faculty member as colored paper and must be turned in and signed at the end of the exam
 2. Non-programmable calculator
 3. iPad stylus
7. Students must leave ALL personal items in student lockers or place at the front of the testing room if a locker is unavailable. Restricted items includes, but is not limited to:
 - a. Food and drinks
 - b. Books, notes, study aids, etc. (unless specifically permitted by the instructor)
 - c. Mechanical/refillable pencils/pens/pencil cases
 - d. Coats/ jackets)
 - e. Head coverings (hood/hats/caps) unless worn for religious or medical purposes
 - f. Watches (regardless of type)
 - g. Personal calculators (The ExamSoft calculator must be utilized, or in instances when exams are not delivered by ExamSoft, required calculator by course instructor must be utilized).
 - h. Electronic devices
 1. Activity tracking devices
 2. Cell phones
 3. Programmable/graphing calculators
 4. Any other devices capable of storing/transmitting/receiving information
8. Students may be asked to turn out pockets, change position, or provide other means of

assurance to demonstrate compliance with this policy. One's body should be void of writing in reference to exam content. All items are subject to inspection.

9. Proctors may confiscate restricted items until the exam is completed. Possession of restricted items will be considered a lack of proper decorum and be subject to penalty. Serious breaches (e.g. cheat sheet) will result in dismissal from the examination.
10. If the instructor decides to address a student inquiry related to interpretation or context of exam they shall address the answer to the entire class. Questions may only be addressed before the first student completes the examination.
11. Students witnessing suspected cheating should notify the proctor discreetly and immediately.
12. Students will not be excused from the exam room without good reason. Those granted permission, should turn over all papers or enable the "Hide Exam" function so it cannot be viewed by a classmate. No more than one student will be allowed to leave the examination room at one time. During absence, students must not use any communication device or consult any reference.
13. Students must turn in all requested materials (e.g. exam, answer sheet, scratch paper, equation sheets) prior to exiting the examination room.
14. When completing the exam, students must submit and have receipt of their uploaded exam confirmed by the individual delivering the exam before leaving the exam room. Students who experience difficulty submitting their exam will be referred for technical assistance.
15. After submitting the exam, a student must leave the examination room and any adjacent area to prevent disturbing those students still taking the examination.

IV. Technology Issues

1. If a student is unable to download the examination file or there is an iPad failure after downloading examination file but prior to the examination start time, the student should contact the course instructor PRIOR to the examination start time.
2. If an iPad freezes or fails during an examination:
 - a. Bring device to the proctor at the front of the room
 - b. Restart the device (instructor will note amount of time needed for restart).
 - c. If unable to restart and resume the examination, leave the device at the front of the room and obtain a paper copy of the examination.

V. Academic Dishonesty

1. Students are expected to adhere to the Student Academic and Conduct Standards Policy (NDSU CHP Policy Manual Section 3.01).
2. Students should avoid behaviors that give the appearance of cheating (e.g. talking during exams, wandering eyes) and should take measures to protect their own work.
3. Violations of the Conduct Standards will be reported to the Senior Associate Dean and reported via the Professional Misconduct tracking form.
4. Instructors may move students during the examination to avoid or suspend possible instances of cheating. If a widespread breach of the Conduct Standards is suspected, particularly in the case of emergency matters/evacuation, the instructor may cancel the remainder of the examination and reschedule a new exam at a later date (NDSU Policy Manual Section 335).

VI. Interruptions During an Examination

1. If a fire alarm or other emergency condition occurs during an examination, either paper or electronic-based, students will immediately cease taking the examination and evacuate the building. All materials should be turned over and left on the desk.
2. Students may be asked to evacuate to a specific location. Students are to remain in full view of the individual administering the exam where they can hear the all clear announcement.
3. Students may not discuss the examination with any other person or access any materials including electronic devices.
4. After the fire alarm or other cause of interruption has ended, students will return to their assigned seat immediately and if possible, resume the examination when announced by the proctor to do so. Students returning later than 10 minutes following the “all clear” signal may be excluded from continuing the examination.
5. The examination will add additional time equal to that lost during the interruption, if time permits. Students returning late will not receive additional time above that given to all students.
6. In the event of a prolonged interruption of 15 min without a foreseeable resolution, the examination should be cancelled and rescheduled for a different date.

VII. Penalties

1. Instructors are encouraged to outline penalties for examination infractions within their course syllabus. An example of infractions and associated penalties are listed in **Table 1**.
2. All infractions, regardless of penalties should be reported by the instructor through the Professional Misconduct Tracking Form within seven days of occurrence.

Table 1.

More than 15 minutes late to a scheduled examination	10% deduction from student's earned exam score
Faculty has some concern regarding possibility of academic misconduct (example: student has a watch, cell phone, etc. available during the examination)	15% deduction from student's earned exam score
Student has an unexcused absence during the examination	30% deduction from student's earned exam score
There is high likelihood or evidence of academic dishonesty (2-way communication, written resource, cheat sheet, evidence of cheating from ExamSoft data analysis)	Exam score of 0% and reported to the Senior Associate Dean

Approved: September 6, 2018 for implementation on October 1, 2018

Revised: 11/14/2019

Source: SOP Faculty Minutes

Adapted from the University of Iowa College of Pharmacy

APPENDIX 8K

Senior Associate Dean Cynthia Naughton

Evaluation Committee Report

The committee assigned to evaluate Dr. Cynthia Naughton, Senior Associate Dean of the NDSU College of Health Professions, respectfully submits this report. This report summarizes a survey of faculty, staff and stakeholders in the College of Health Professions who routinely work with Dr. Naughton in her capacity as the Senior Associate Dean. The survey was designed, administered and summarized during the period October 15 through December 14, 2015, and was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

The Process

On August 5, 2015, Dr. Charles Peterson, Dean of the College of Health Professions (CHP), initiated the review process. An eight member committee chaired by Carla Gross, Associate Dean and Chair of the School of Nursing was developed. Other members included Amy Werremeyer (Associate Professor of Practice and Vice Chair, Pharmacy Practice), Brody Maack (Assistant Professor of Practice, Pharmacy Practice), Kristine Steffen (Associate Professor, Pharmaceutical Science), Mark Strand (Professor, Pharmacy Practice and Public Health), Karla Haug (Assistant Professor of Practice, Nursing), Melissa Eslinger (Academic Assistant, Dean's Office), and Dan Cernusca (Assistant Professor, Instructional Designer). The Committee communicated through face to face meetings and email. The final report was submitted to Dr. Peterson on December 11, 2015.

The evaluation committee created a survey instrument to evaluate Dr. Naughton's performance in carrying out her administrative responsibilities. The survey contained six sections. Questions in Section one asked the individual's unit within the College (Allied Sciences, Dean's Office, Nursing, Pharmacy Practice, Pharmaceutical Sciences, and Other) and the role of the individual responding to the survey (Faculty, Administrative Council, Staff, Clinical Associate, and Other). The second section contained four items assessing Dr. Naughton's overall effectiveness. Section three included twelve questions assessing her leadership abilities. The fourth section, which included five items assessing Dr. Naughton's performance in assessment was completed only by faculty in Pharmacy Practice and Pharmaceutical Sciences since her role in assessment is limited to these two units. Section five contained nine items assessing her performance in communication. Finally, the sixth section included eight questions assessing Dr. Naughton's performance related to management. Each section included an open ended question encouraging participants to include additional insights related to the measured category. At the end of the survey, participants were asked to comment on Dr. Naughton's strengths and areas for growth.

A five point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) was used to answer the quantitative survey items. Collectively, these items are generally consistent with the standards identified in NDSU Policy 327. Because Dr. Naughton's position as Senior Associate Dean is somewhat unique at NDSU and spans both administrative and department-specific responsibilities, a decision was made to design the survey in accordance with her actual job responsibilities, rather than arranging the survey items in a manner consistent with the evaluation criteria in Policy 327. Dr. Naughton was provided with a copy of the survey items and invited to provide feedback prior to the administration of the survey.

The survey was administered electronically with Qualtrics software. The survey was sent to faculty and staff in the College of Health Professions, the Pharmacy Alumni Advisory Board, Clinical Associates,

and other external program stakeholders and was opened the week of November 10th through November 20th. Two reminders were sent out during that time to encourage participation.

After closing the survey, all responses were gathered, analyzed, and summarized. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below. The full set of responses has been attached to this report as an appendix.

Evaluation Summary

Demographics

Sixty-four respondents completed the survey. Of those, 36% (N= 23) were from Pharmacy Practice, 20% (N = 13) were from Nursing, 13% (N = 8) were from Pharmaceutical Sciences, 3% (N = 2) were from Public Health, 3% (N = 2) from Allied Sciences, and 13% (N = 8) identified as “other”. The distribution of respondents by role included 58% (N = 37) faculty, 17% (N = 11) staff, 8% (N = 5) Administrative Council members, 2% (N = 1) clinical associate, and 16% (N = 10) identifying as “other”. The majority of the participants from the “other” category included advisory board members; a lecturer and a campus administrator also responded. A few invitees contacted the evaluation committee chair and respectfully declined to participate in the survey because they did not believe that they worked with Dr. Naughton on a regular basis to provide meaningful responses.

Mean Scores Categories/Distributions

Cronbach’s Alpha was calculated to analyze the internal reliability of each category. The results ranged from .96 to .99, suggesting very high internal consistency between items in each category. Clearly, the items used to assess performance in each of the five categories were highly reliable. As depicted in Table 1 below, the mean scores for each category ranged from 4.0 to 4.2 (SD ranged from .92 to 1.11). Table 2 reveals the mean values for each survey item.

Table 1. Mean Values for Each Review Category

Category	N	Min	Max	Mean	Std. Deviation
Overall effectiveness	62	1.00	5.00	4.0	1.11
Leadership	60	1.08	5.00	4.0	1.03
Assessment (Pharmacy)	28	1.75	5.00	4.2	.92
Communication	59	1.00	5.00	4.2	1.03
Management	56	1.00	5.00	4.2	.99

Table 2. Mean values by question for each review category

Category	Question #	N	Mean	St. Dev.	Median
Overall Effectiveness	Q1	61	4.2	1.09	4.0
	Q2	61	4.0	1.15	4.0
	Q3	60	4.1	.99	4.0
	Q4	57	4.0	1.20	4.0
Leadership	Q1	58	4.1	1.10	4.0
	Q2	59	4.1	1.12	4.0
	Q3	58	4.0	1.2	4.0
	Q4	56	4.0	1.14	4.0
	Q5	60	4.0	.97	4.0
	Q6	58	4.0	1.17	4.0
	Q7	55	3.8	1.17	4.0
	Q8	57	4.1	1.09	4.0
	Q9	50	3.9	1.19	4.0
	Q10	55	4.0	1.16	4.0
	Q11	58	4.2	1.01	4.0
	Q12	56	4.1	1.15	4.0
Assessment (Pharmacy)	Q1	27	4.0	.74	4.0
	Q2	28	4.5	.94	5.0
	Q3	26	4.4	.95	5.0
	Q4	26	4.2	.97	4.0
	Q5	28	4.1	.74	4.0
Communication	Q1	59	4.2	1.09	4.0
	Q2	59	4.1	1.15	4.0
	Q3	59	4.1	1.13	4.0
	Q4	58	4.0	1.19	4.0

	Q5	59	4.1	1.07	4.0
	Q6	59	4.1	1.14	4.0
	Q7	58	4.2	1.08	4.0
	Q8	59	4.4	.97	5.0
	Q9	59	4.4	.98	5.0
	Q1	54	4.2	1.04	4.0
	Q2	55	4.2	1.07	5.0
	Q3	42	4.1	1.15	4.0
	Q4	49	4.2	.99	5.0
Management	Q5	48	4.1	1.20	5.0
	Q6	52	4.2	1.09	5.0
	Q7	50	4.1	1.10	4.0
	Q8	48	4.3	1.09	4.0

The distribution of means across the elements of the two demographic variables collected for this review is presented in Table 3 and Table 4, respectively.

Table 3. Distribution of Means by Department

	Overall	Leadership	Assessment (Pharmacy)	Communication	Management
<i>Allied Sciences</i>	4.4 (2)	4.4 (2)		4.5 (2)	4.5 (2)
<i>Dean's Office</i>	4.5 (8)	4.4 (8)		4.4 (8)	4.5 (8)
<i>Nursing</i>	3.7 (12)	4.1 (10)		4.3 (9)	4.3 (9)
<i>Pharm. Practice</i>	3.9 (23)	3.8 (22)	4.2 (22)	3.9 (22)	3.8 (22)
<i>Pharm. Sci.</i>	3.8 (8)	3.5 (8)		3.8 (8)	4.1 (7)
<i>Public Health</i>	4.2 (2)	3.9 (2)		4.6 (2)	4.4 (2)
<i>Other</i>	4.9 (7)	4.8 (8)		4.2 (8)	5.0 (6)

Note: the number of participants that answered is presented within brackets

Table 4. Distribution of Means by Participant Role

	Overall	Leadership	Assessment (Pharmacy)	Communication	Management
<i>Faculty</i>	3.8 (36)	3.8 (33)	4.2 (25)	4.0 (33)	4.0 (33)
<i>Admin. Council</i>	4.1 (5)	4.0 (5)	5.0 (1)	3.9 (4)	3.9 (4)
<i>Staff</i>	4.0 (11)	4.0 (11)	5.0 (1)	4.1 (11)	4.3 (10)
<i>Clinical Assoc.</i>	5.0 (1)	5.0 (1)	-	5.0 (1)	5.0 (1)
<i>Other</i>	4.8 (9)	4.8 (10)	4.4 (1)	4.9 (10)	4.9 (8)

Note: the number of participants that answered is presented within brackets

When assessing the mean score distribution by participant role, faculty rated Dr. Naughton’s performance lowest (3.8) in the overall effectiveness and leadership categories and highest (4.2) in assessment. Staff rated her performance lowest (4.0) in the overall effectiveness and leadership categories and highest (4.3) in management. Members of Administrative Council rated Dr. Naughton’s performance lowest (3.9) in the categories of communication and management and highest (4.1) in the overall effectiveness category. The group identifying as “other” rated Dr. Naughton’s performance highest, ranging from 4.8 (overall effectiveness and leadership) to 4.9 (communication and management). The assessment category was excluded in the last three group mean ratings summary since a very limited number of participants answered the assessment items.

When assessing the mean score distribution by departments, participants who identified as “other” rated her highest ranging from 4.2 in communication to 5.0 in management. Allied Science and the Dean’s Office staff participants rated Dr. Naughton’s performance in all four categories consistently high (4.4 to 4.5). Nursing participants rated her performance lowest (3.7) in the overall effectiveness category and highest (4.3) in communication and management. Participants from Public Health rated her lowest (3.9) in leadership and highest (4.6) in communication. Participants in Pharmacy Practice rated Dr. Naughton’s performance somewhat lower and fairly consistent across categories, ranging from 3.8 in leadership and management to 4.2 in assessment. Mean scores from Pharmaceutical Sciences participants ranged from 3.5 in leadership to 4.1 in management.

Overall Effectiveness

Overall, respondents agreed that Dr. Naughton is effective in her position. This was evaluated using four questions related to overall effectiveness. The mean ranged from 4.0-4.2 (SD 0.99 -1.20). Respondents agreed that Dr. Naughton provides leadership in all matters related to Academic Affairs as well as working effectively with all departments within the College (4.0). Dr. Naughton is also effective at providing administrative oversight for matters related to assessment (4.1). Respondents agreed that Dr. Naughton is effective at developing and implementing academic policies and procedures to support and enhance the quality of the College of Health Professions (4.2).

Comments related to overall effectiveness were very positive. Dr. Naughton was reviewed as an effective leader by several respondents. Respondents state that Dr. Naughton is accessible and thoughtful as well as knowledgeable and approachable. One respondent shared, “Dr. Naughton is a consummate professional in terms of both academic endeavors and administrative duties. She puts students first.” Some respondents

did identify that Dr. Naughton's role is primarily within the pharmacy programs; her interactions with other units are limited.

Leadership

The administered survey had 12 questions to evaluate participants' perceptions of Dr. Naughton's leadership skills. The internal reliability of the 12 leadership questions as measured with Cronbach's Alpha was extremely high (0.99). The mean and standard deviation shown in Tables 1 and 2 indicate a high level of perceived leadership skills, while the range of the average scores points towards some less positive evaluations.

The distribution of means across the elements of the two demographic variables collected for this review is presented in Tables 3 and 4. While all mean scores are high and very high, as suggested by the results shown in these tables, the participants in the departments that have a stronger connection with Dr. Naughton, Pharmacy Practice and Pharmaceutical Sciences, respectively, have a lower mean score for perceived leadership skills than other departments. On the same line of reasoning, faculty members' input shows a lower mean score for the perceived leadership skills.

Of the six participants that provided an answer to the open-ended question related to Dr. Naughton's leadership skills, four clearly indicated that they had few or no significant leadership-related interactions with her and therefore they could not provide significant feedback on this area. These findings provide some additional support to the previous findings that showed some over-estimation of these skills from those participants that came from departments or roles not linked to the School of Pharmacy. While two of the six respondents spoke favorably about Dr. Naughton's leadership, there were some comments that suggest the possibility of some departments in the College of Health Professions feeling less connected to Dr. Naughton.

Assessment

Senior Associate Dean Naughton was evaluated in the area of assessment of pharmacy programs, in accordance with her job description. Only the survey respondents who identified that they were members of the Departments of Pharmaceutical Sciences or Pharmacy Practice were able to access the four questions that addressed the area of assessment of pharmacy programs in the survey. Overall, scores were high in this area. The highest mean score (4.5) (SD .74) was associated with question 4, "Keeps up to date with changes in accreditation standards related to assessment and informs others of these changes." The lowest mean score (4.0) (SD .74) was associated with question 1, "Effectively institutes and manages a process for evaluation the success and performance of pharmacy programs." There was just one pertinent comment relevant to the area of assessment and this comment was very positive.

Communication

There were nine questions included on the survey related to communication ability and effectiveness. The Chronbach's Alpha value for this set of questions was found to be .98, suggesting very high internal consistency between items in this category. Among the 59 respondents, the mean score across questions related to communication was 4.2 (SD1.0). Mean communication scores varied across departments; the lowest mean scores were given by the pharmaceutical sciences (3.8, n=8) and pharmacy practice (3.9, n=22) departments and the highest scores were given by allied sciences (4.5, n=2) and public health (4.6, n=2). Mean ratings on individual items within the set of questions concerning communication ranged from 4.0-4.4, and median values were either 4 or 5 for each question.

Dr. Naughton's perception as a communicator is very positive. Based on additional comments provided by those surveyed, she clearly has very good communication skills and is open to discussion and listening

to other faculty and staff. It is also noted that she carries herself very professionally and is very approachable to those who have regular contact with her. Some comments provided evidence that some departments outside of pharmacy practice, such as nursing, do not have much contact with her, and therefore were unable to comment on her ability to communicate effectively.

Management

Senior Associate Dean Naughton's management responsibilities were evaluated using eight questions. The mean of the responses varied from 4.1-4.3 (SD 0.99-1.20). Overall, respondents agreed that Dr. Naughton is effective in her ability to make decisions, her organization and management skills, her follow-up on academic affairs issues, and her ability to apply policy consistently (mean for all areas 4.2). Dr. Naughton also demonstrates the ability to manage workloads appropriately (4.1). Respondents agreed that Dr. Naughton assists faculty with the handling of students' complaints (4.1). Respondents also agreed that she effectively delegates tasks (4.1). The highest ranked management question was her ability to effectively manage and coordinate scheduling and registration within the college (4.3). Overall, Dr. Naughton was identified to have effective management skills.

Comments related to management indicated that Dr. Naughton has excellent management and organizational skills. "Dr. Naughton was always well-organized and completed tasks (both assigned and volunteered for) in a responsible and timely manner. Respondents also positively acknowledge her ability to address student issues through consistent application of College policies and fairness." Respondents indicated an area of growth (by a small margin) to be Naughton's ability to delegate activities.

Strengths

When asked to describe Dr. Naughton's strengths, 27 of the 64 participants responded with their perceptions. Several themes were identified. She has strong communication skills, is very approachable, and is receptive to others. For example, one participant wrote "Dr. Naughton is an excellent listener. She is respectful while also being insightful." She is also viewed as dedicated, goal directed, and knowledgeable. One participant commented on Dr. Naughton's "strong understanding of academic policies and the assessment process" and her "attention to detail and motivation to complete tasks thoroughly, efficiently, and effectively". Participants view Dr. Naughton's demeanor as very professional. One individual stated "She is visionary and sets high standards for herself and others." "She has great vision and does a wonderful job of getting buy-in and keeping faculty moving in the direction of her vision(s) for improvement of programs."

Areas for Growth

Of the 14 comments in this section of the survey, 11 actually made suggestions for areas for growth in Dr. Naughton's performance. The most consistent theme was the need for her to interact more with the other disciplines in the College in her role as Associate Dean. For example, one participant wrote "Availability and visibility with non-pharmacy students, faculty, and staff". Another wrote "maybe a clearer definition of her role with nursing". Other suggestions, although these were not as prevalent, were to seek more faculty input before making decisions and to enhance her delegation skills.

Conclusions

The evaluation committee members agreed that the performance survey findings indicate that Dr. Naughton is effective in her role as Senior Associate Dean. Only two of the 38 items in the survey had a

mean score less than 4.0; both items were in the leadership category. Mean scores for all other items across all categories ranged from 4.0 to 4.5 indicating participants agreed or strongly agreed with the statements. Dr. Naughton is viewed as highly professional, knowledgeable, and organized leader with very good communication skills.

As discussed earlier in this report, mean ratings of Dr. Naughton's performance were perceived as less favorable from participants in Pharmacy Practice and Pharmaceutical Sciences departments and participants who are faculty. When discussing the possible reasons for this finding, committee members identified that participants in those categories interact more closely and frequently with Dr. Naughton; therefore they are most likely best able to evaluate her performance and to have the strongest responses.

Based on comments dispersed throughout the survey report, Dr. Naughton's position as Senior Associate Dean in the College of Health Professions is unclear and confusing, especially to faculty and staff outside of the pharmacy discipline. Committee members agreed that this does not reflect Dr. Naughton's performance. Instead the committee recommends that her position description be re-evaluated and/or better communicated to faculty and staff so that her role in the College is better understood.

**Senior Associate Dean, Cynthia Naughton – Review Survey
November 2015**

Demographics

Total number of respondents: 64

Table 1. Distribution of respondents by department

	Frequency	[%]	Cumulative [%]
Allied Sciences	2	3.1	3.1
Dean's Office	8	12.5	15.6
Nursing	13	20.3	35.9
Pharmacy Practice	23	35.9	71.9
Pharmaceutical Sciences	8	12.5	84.4
Public Health	2	3.1	87.5
Other	8	12.5	100.0
Total	64	100.0	

Table 2. Distribution of respondents by their role

	Frequency	[%]	Cumulative [%]
Faculty	37	57.8	57.8
Administrative Council	5	7.8	65.6
Staff	11	17.2	82.8
Clinical Associate	1	1.6	84.4
Other	10	15.6	100.0
Total	64	100.0	

Note: one faculty and two staff members reported also as being part of the Administrative Council and therefore in this table they counted only as part of the Administrative Council to reflect the total number of participants.

Results from the Analysis of Review Categories

The administered survey had 5 review categories each made of multiple questions evaluated with a Likert Scale (1- strongly disagree to 5- strongly agree). Table 3 shows these categories, their structure and the internal reliability of each category as measured with Cronbach's Alpha.

Table 3. Review Categories

Review category	# questions	Cronbach's Alpha
Overall Effectiveness	4	.96
Leadership	12	.99
Assessment [Pharmacy]	5	.96
Communication	9	.98
Management	8	.98

The very high internal reliability for each of the five review categories indicates that each category acts as a reliable evaluation scale resulted as the mean of its questions' scores. Table 4 synthesizes the means and standard deviations for the 5 review categories.

Table 4. Mean Values for Each Review Category

Category	N	Min	Max	Mean	Std. Deviation
Overall effectiveness	62	1.00	5.00	4.0	1.10961
Leadership	60	1.08	5.00	4.0	1.02784
Assessment (Pharmacy)	28	1.75	5.00	4.2	.91806
Communication	59	1.00	5.00	4.2	1.02684
Management	56	1.00	5.00	4.2	.99468

The distribution of means across the elements of the two demographic variables collected for this review is presented in Table 5 and respectively Table 6.

Table 5. Distribution of means by department

	Overall	Leadership	Assessment (Pharmacy)	Communication	Management
<i>Allied Sciences</i>	4.4 (2)	4.4 (2)		4.5 (2)	4.5 (2)
<i>Dean's Office</i>	4.5 (8)	4.4 (8)		4.4 (8)	4.5 (8)
<i>Nursing</i>	3.7 (12)	4.1 (10)		4.3 (9)	4.3 (9)
<i>Pharm. Practice</i>	3.9 (23)	3.8 (22)	4.2 (22)	3.9 (22)	3.8 (22)
<i>Pharm. Sci.</i>	3.8 (8)	3.5 (8)		3.8 (8)	4.1 (7)
<i>Public Health</i>	4.2 (2)	3.9 (2)		4.6 (2)	4.4 (2)
<i>Other</i>	4.9 (7)	4.8 (8)		4.2 (8)	5.0 (6)

Note: the number of participants that answered is presented within brackets

Table 6. Distribution of means by participant role

	Overall	Leadership	Assessment (Pharmacy)	Communication	Management
<i>Faculty</i>	3.8 (36)	3.8 (33)	4.2 (25)	4.0 (33)	4.0 (33)
<i>Admin. Council</i>	4.1 (5)	4.0 (5)	5.0 (1)	3.9 (4)	3.9 (4)
<i>Staff</i>	4.0 (11)	4.0 (11)	5.0 (1)	4.1 (11)	4.3 (10)
<i>Clinical Assoc.</i>	5.0 (1)	5.0 (1)	-	5.0 (1)	5.0 (1)
<i>Other</i>	4.8 (9)	4.8 (10)	4.4 (1)	4.9 (10)	4.9 (8)

Note: the number of participants that answered is presented within brackets

Considering the limitations caused by the relatively small sample size, no statistically significant differences among the above groups was found (one-way ANOVA).

To provide a more detailed insight in the collected data, Table 7 summarizes the mean values by question for each of the five review categories.

Table 7. Mean values by question for each review category

Category	Question #	N	Mean	St. Dev.	Median
Overall Effectiveness	Q1	61	4.2	1.093	4.0
	Q2	61	4.0	1.154	4.0
	Q3	60	4.1	.993	4.0
	Q4	57	4.0	1.203	4.0
Leadership	Q1	58	4.1	1.099	4.0
	Q2	59	4.1	1.119	4.0
	Q3	58	4.0	1.116	4.0
	Q4	56	4.0	1.144	4.0
	Q5	60	4.0	.974	4.0
	Q6	58	4.0	1.169	4.0
	Q7	55	3.8	1.166	4.0
	Q8	57	4.1	1.087	4.0
	Q9	50	3.9	1.189	4.0
	Q10	55	4.0	1.155	4.0
	Q11	58	4.2	1.011	4.0
	Q12	56	4.1	1.149	4.0
Assessment (Pharmacy)	Q1	27	4.0	.744	4.0
	Q2	28	4.5	.941	5.0
	Q3	26	4.4	.951	5.0
	Q4	26	4.2	.970	4.0
	Q5	28	4.1	.744	4.0
Communication	Q1	59	4.2	1.085	4.0
	Q2	59	4.1	1.152	4.0
	Q3	59	4.1	1.125	4.0
	Q4	58	4.0	1.192	4.0
	Q5	59	4.1	1.074	4.0
	Q6	59	4.1	1.140	4.0
	Q7	58	4.2	1.078	4.0
	Q8	59	4.4	.965	5.0
	Q9	59	4.4	.983	5.0
Management	Q1	54	4.2	1.035	4.0
	Q2	55	4.2	1.071	5.0
	Q3	42	4.1	1.147	4.0
	Q4	49	4.2	.990	5.0
	Q5	48	4.1	1.196	5.0
	Q6	52	4.2	1.091	5.0
	Q7	50	4.1	1.096	4.0
	Q8	48	4.3	1.085	4.0

The remaining of this summary presents participants' answers to the open-ended questions used in this survey. Answers in the below tables are placed randomly.

Roles of participants that selected “other”

Advisory Board

Advisory Committee

Lecturer

Member of Dean Peterson's College of Pharmacy National Advisory Committee

Member of the pharmacy national advisory board

NDSU administrator who worked with Dr. Naughton on a university-wide committee for five years

Pharmacy Advisory Board Member

Pharmacy Advisory Board to the Dean

Pharmacy national advisory board

Additional insights - Overall Effectiveness

Cindy is an effective leader, who is in touch with every aspect of the department.

Difficult to answer questions about effectiveness because the SON virtually never has any interaction with Dr. Naughton, I believe she is only concerned about Pharmacy practice

Difficult to answer. Not sure of what Dr. Naughton role is with the nursing department. If leadership and/or oversight of nursing is a role, I cant evaluate as I haven't seen those activities.

Dr Naughton is a consummate professional in terms of both academic endeavors and administrative duties. She puts students first. She works extremely well with the Advisory Board, informing of the board of initiatives within her scope of activities, brings up areas of excellence as well as identifying areas in which the Advisory Board can help to improve. Top notch member of the team!

Dr. Naughton has provided effective direction and oversight while reviewing my course content, including class objectives and lecture schedule. She has also been very encouraging.

Dr. Naughton is an insightful leader within the College of Health Professions. She is accessible and thoughtful in her interactions with others.

Dr. Naughton is open and approachable.

Dr. Naughton's leadership was instrumental in the successful visit by the ACPE accreditation committee

I have found her to be very willing to assist when I have needed assistance with anything. She has been very approachable when I have questions.

I have not had hardly any interaction with her to base my assessment of her on, but wanted to respond to the repeated urgings to complete a survey. So, this is why I felt that my assessment was "not applicable."

Is always willing to collaborate with all departments--provides great insight and support to others when needed. Has high standards and is highly effective in her position. Understands, develops, and implements reasonable policies.

Outstanding performance and leader.

Pharmacy Practice and Allied Sciences both submit outstanding assessment reports and have strong cultures of assessing student learning. Pharmaceutical Sciences struggles.

She is very knowledgeable and skilled at handling assessment and academic affairs issues.

Very effective leader. Major projects such as mandatory I-pads and required Exam Soft examinations seemed to have not been discussed much. They were decided and implemented without full faculty input.

Additional insights – Leadership

Dr. Naughton was a highly involved and very effective committee member on the Core Undergraduate Learning Experiences team. She made particularly important contributions to the Quality Improvement Project (capstone experiences) that the team did for the HLC. She was also very helpful in helping us think systematically about how we examined recent general education revisions at other land-grants.

Highly effective in all leadership skills!!

Many of these items I have not had first hand experience with resulting in a not applicable rating. Other responses are based solely on my interaction with Dr. Naughton while serving on the pharmacy advisory board. My perception is limited by what she presents at the meetings and the Dean shares with us.

Not familiar with her leadership or effectiveness because she is not transparent or visible or available to Nursing

Once again, I have not had any one-on-one interaction with Dr. Naughton to base constructive feedback or evaluation on.

Seems very focused on Pharmacy

Additional insights – Assessment

I am sure she does a great job with Pharmacy. nursing would not be able to evaluate her pharmacy assessment performance

Very organized and efficient in all duties!

Additional insights – Communication

Cindy has excellent communication skills, and has an open door policy.

difficult to evaluate as interaction with nursing is minimal

Great interpersonal and communication skills! Displays a genuine concern for students, faculty and staff! Dr N is a great asset to the HP college, we are fortunate to have her!!!!!!

My interactions with Dr. Naughton have always been extremely professional. She seems genuinely interested in me as a person and is easy to talk to.

Outstanding.

Additional insights – Management

Dr. Naughton was always well-organized and completed tasks (both assigned and volunteered for) in a responsible and timely manner.

Excellent management skills. Very organized and fair.

I have not worked with Dr. Naughton in this capacity to be able to assess.

It would be nice to actually have the academic affairs committee evaluate and report on those students who are remediating repeatedly. Use this committee!

Non-Pharmacy, Dr. Naughton does not do any of these activities for non-pharmacy staff and faculty so cannot answer many of the questions. She may be great in the Pharmacy program

scheduling has been effective , unable to evaluate other criteria

Strengths

As faculty in the CHP, I have no idea her strengths because have had one conversation with her in 13 years.

Assertive

Cindy is very knowledgeable about the College and her field.

Dedicated, well-spoken, motivated, visionary

diligent worker

Dr. Naughton demonstrates professionalism and has demonstrated an ability to develop and measure new teaching/learning methods within the College.

Dr. Naughton is a great administrator with effective leadership skills. She pioneered the use of iPad for students n now both students n faculty are so happy using devices for learning n teaching. / / Dr. Naughton has highly effective communication skills, I like listening to her forever.

Dr. Naughton is an excellent listener. She is very respectful while also being insightful.

Dr. Naughton is very thorough and objective. When she presents to the Advisory Board, she is prepared. During all of the curriculum changes, her approach seemed extremely well thought out. She was receptive to feedback. Dr. Naughton also seems very approachable, which is a quality that is essential for anyone working with students.

Dr. Naughton's strength include being encouraging, understanding and focused.

Effective information gathering / Decisive

Extremely approachable and passionate about the college and the outcomes of our students.

Great communicator

Her consistency in application of College policies and her fairness in assessment of student issues.

Her vision, leadership and ability to work towards continuously improving the quality and scope of education for all students. She demonstrates outstanding skill in all areas addressed by this survey.

Is persistent and effective at pursuing goals.

Knowledgeable, Has high standards, Reasonable, Easy to talk to, Supportive of others. Maintains standards. Follows policies consistently.

Open, approachable, easy to talk to. / High emotional intelligence. / Rich experience in pharmacy and academics. / Humble.

Openness to new ideas, empathy, professionalism

Professional

Professional, friendly, personally involved, concerned about others, genuine.

She is an excellent representative of the college in university-wide affairs.

she is friendly

She is receptive, thoughtful and efficient. She has great vision and does a wonderful job of getting buy-in and keeping faculty moving in the direction of her vision(s) for improvement of programs.

She is very professional and very personable.

Strong understanding of academic policies and assessment process. / Personable interactions with staff and faculty. / Great sense of humor. / Attention to detail and motivation to complete tasks thoroughly/ efficiently/ effectively / Highly capable and knowledgeable in most all matters. / Good problem solver and decision maker.

Verbal communication

Areas for growth

Availability and visibility with non-pharmacy students, faculty and staff

Dr Naughton consistently makes unilateral decisions/plans with little or no faculty input. Dr Naughton lacks the skills necessary to build consensus and implement a team approach to solving problems and making strategic plans.

I am unable to assess areas for growth.

I don't see anything specific. / I hope n wish she will get an opporunity to serve a college/institute as a Dean or higher authority, in near future. She is SO READY for that not that I want to see her off.

I would like to see her interact more with faculty in disciplines other than pharmacy. I sometimes get the impression that she feels faculty are beneath her in importance to the University.

leadership

maybe a clearer definition of her role with nursing. is she accountable for assessment activities of the college or just pharm practice?

She can continue to grow in delegating to others.

Sometimes her tendency to be a perfectionist comes across to others as controlling.

Sometimes when approaching her with an issue, it seems like she is still thinking about something else. After a few minutes, it's usually fine. But sometimes you feel you have interrupted something. / Better mastery of education theory.

Stubborn at times

thoughtfully consider both sides of an issue, not just whoever "gets your ear first"

Unknown by me at this time.

When presenting information to the Advisory Board, her presentation style is very formal and her rate of speech is slower than anticipated. She is a great presenter, but would be nice to see her be a little less formal - take off the administrator hat for a while - we are a very laid back group. :)

Leadership

Senior Associate Dean Dr. Cynthia Naughton:

1. Creates and facilitates an environment that stimulates excellence in teaching at the college level.
2. Effectively promotes a shared vision within the College of Health Professions.
3. Creates an environment of trust between herself and the faculty members in the College of Health Professions.
4. Overcomes obstacles and disagreements to achieve defined goals associated with her position.
5. Enthusiastically embraces change.
6. Is willing to make changes in response to feedback from others.
7. Seeks input from faculty and staff in planning priorities for the College of Health Professions.
8. Shows effectiveness in setting and sustaining targeted goals for the College of Health Professions.
9. Brings substantive conflicts and disagreements into the open and attempts to resolve them collaboratively.
10. Is able to build consensus.
11. Promotes continuous quality improvement of programs in the College of Health Professions.
12. Identifies and addresses the emerging needs of the programs in the College of Health Professions

Assessment (Pharmacy Program)

Senior Associate Dean Dr. Cynthia Naughton:

1. Effectively institutes and manages a process for evaluating the success and performance of pharmacy programs.
2. Keeps up to date with changes in accreditation standards related to assessment and informs others of these changes.
3. Oversees collection of data from a variety of sources to assess the quality and effectiveness of pharmacy programs.
4. Effectively analyzes and interprets data relevant to assessment.
5. Incorporates assessment findings to make changes and improvements in the pharmacy programs.

Communication and Interpersonal Skills

Senior Associate Dean Dr. Cynthia Naughton:

1. Demonstrates effective interpersonal skills and communication.
2. Demonstrates good listening skills.
3. Effectively fosters fair and open communications.
4. Is receptive to different opinions.
5. Shows sincere interest in the concerns of others.
6. Demonstrates respect for others regardless of that person's personal or professional background.
7. Exchanges information with others in a timely and effective manner.
8. Communicates and interacts in a professional manner.
9. Conveys written and verbal information clearly and effectively.

Management

Senior Associate Dean Dr. Cynthia Naughton:

1. Effectively makes decisions.
2. Practices effective organizational and management skills.

3. Appropriately manages a fair allocation of workload in relation to teaching hours, service, and scholarship.
4. Demonstrates appropriate follow-up on issues related to Academic Affairs.
5. Assists faculty in the handling of student complaints, within policies and procedures.
6. Applies department, college, and university academic policy consistently.
7. Effectively delegates responsibilities to others.
8. Effectively manages and coordinates scheduling and registration within the College of Health Professions.

Overall Effectiveness

Senior Associate Dean Dr. Cynthia Naughton:

1. Effectively develops/implements academic policies and procedures to support and enhance the quality of the College of Health Professions.
2. Provides effective leadership in all matters related to Academic Affairs overall.
3. Is effective in providing administrative oversight for matters related to assessment.
4. Works effectively with all departments within the College.

NDSU

PUBLIC HEALTH

January 31, 2019

Dean Charles Peterson
North Dakota State University
College of Health Professions
PO Box 6050
Fargo, ND 58108

Dear Dean Peterson,

The committee appreciates the opportunity to review **Dr. Daniel Friesner, Associate Dean for the College of Health Professions**, for his required administrative 360 evaluation. For this review we examined and analyzed several materials related to the job duties outlined in Dr. Friesner's position description. The materials used to evaluate Dr. Friesner include: Dr. Friesner's letter of self-assessment, statement of accomplishments, and administrative and leadership philosophy where he reflects both broadly and narrowly on his accomplishments and challenges; an online faculty/staff survey; an online student survey (sent to CHP Ambassadors and the Dean's Student Liaison Committee); an online partner survey (sent to selected outside the College partners); and your 2014-2018 supervisor letters of evaluation. This letter outlines the committee's analysis of the examined materials in five selected areas: Academic Advising and Student Recruitment, Partnerships and University Relationships, Student Affairs, Teaching, and Research. A final section of this letter focuses on results and recommendations specifically from the faculty/staff survey.

Academic Advising and Student Recruitment

In the areas of student recruitment/admissions and pharmacy student academic advising (these relate almost exclusively to pharmacy faculty and staff) faculty/staff generally agree that Dr. Friesner assures compliance with ACPE standards for student affairs. However, a significant number of people disagree that he seeks input from faculty regarding pharmacy admissions policy and standards, offers training and support for faculty academic advising, and that he makes fair faculty assignments for pharmacy advising loads. This may reflect confusion about which policies and decisions are made by him versus a college committee. Regardless, a more assertive communication style may be helpful in overcoming barriers to faculty buy-in. To be more effective as a leader in College-wide student recruitment, Dr. Friesner is encouraged to directly disseminate information via email or in meetings to all departments and individuals impacted by decisions.

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Partnerships and University Relationships

Dr. Friesner serves on several university committees related to student affairs. Materials used to summarize Dr. Friesner's effectiveness in representing the College were a partner survey sent to external stakeholders recommended by Dr. Friesner and his self-assessment of administrative duties. Among NDSU partners and stakeholders outside the College, Dr. Friesner is very well regarded. Survey participants find him to be a productive committee member, knowledgeable about college and NDSU policies, highly cooperative, and a good listener. They regard him as an excellent colleague. This reflects the stated importance that Dr. Friesner places on these relationships. Relative to Dr. Friesner's work on university committees, particularly the Honor's Advisory Council, increasing faculty involvement and the number of the College's students in the Honors program is one area needing attention.

Student Affairs

Dr. Friesner provides administrative oversight for student affairs issues within the College of Health Professions (CHP). This includes the development and implementation of the College's Student Conduct Policy. Specific to the PharmD program, student affairs responsibilities include: chairing the Pharmacy Admissions Committee, overseeing the process of admissions, orientation of new and returning pharmacy students, and assigning advisors for pre-professional and professional pharmacy students. Additionally, as the chair of the College Dean's Student Liaison Committee (DLC), Dr. Friesner is responsible for leading the meetings and setting expectations for the future work of the committee.

The committee used both the student and the faculty/staff surveys to determine Dr. Friesner's performance in the realm of student affairs. Students indicated that Dr. Friesner is an overall effective Associate Dean for Student Affairs. Students rated Dr. Friesner positively for specific characteristics related to his interpersonal skills, credibility, trustworthiness, and his ability to support and advocate for all students. Additionally, faculty agreed that Dr. Friesner has an awareness and understanding of student affairs issues within the College, and that he is responsive to student needs related to student affairs matters. Faculty also believe Dr. Friesner facilitates an open environment inclusive of all programs within the College. The evaluation from students and faculty follow the self-reflection assessment by Dr. Friesner, and the importance and emphasis he places on his responsibilities within the College.

Teaching

Dr. Friesner coordinates, implements, and provides instruction in the course CHP 190: Critical Thinking and Academic Success. This course was developed to replace University 189. The course involves coordination with the pre-professional advisors. The course is organized where students meet in smaller discussion groups one day per week with the advisors, and one day per

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week with Dr. Friesner in a large group format to focus on the basics of critical thinking. Dr. Friesner is in the process of developing a course challenge exam for CHP 190 as well as the development of a course best suited for transfer students. In his self-assessment, Dr. Friesner believes the course is an important accomplishment that fulfills his role as Associate Dean. Dr. Friesner also guest lectures on topics consistent with his areas of expertise. Finally, Dr. Friesner has submitted Stage I & Stage II proposals for the development of a College-level major, a new Bachelor of Science in Health Services. The new major will serve the important function of providing a means of completion for College students who do not have the option of finishing a degree within nursing, pharmacy, or allied sciences.

Research

Dr. Friesner has continued to maintain a strong focus in research and scholarship. Even with his heavy administrative duties, he continues to publish articles in peer-reviewed academic journals and co-author grant applications to federal funding sources. He has published over 125 peer-reviewed journal articles in fields including (but not limited to) pharmacy, nursing, economics, chemistry, finance, management science/operations research, education and legal studies. Currently, he collaborates with other quantitative methods faculty on campus to build a biostatistics consulting unit as a part of a multi-million dollar NIH COBRE grant.

Reflections Specific to Faculty and Staff

Faculty and staff responses to the online survey include positive responses and indicated areas of improvement. Faculty and staff find Dr. Friesner friendly, intelligent, hard-working, prompt in replies, supportive and an excellent statistician and researcher. Faculty and staff also find Dr. Friesner to be approachable and available when assistance is needed. Comments related to Dr. Friesner's ability to communicate are mixed. He "fails to communicate directly and effectively," "Communicating via e-mail to everyone involved or discussing matters in meetings, rather than sharing things with one or two people and then expecting trickle down would greatly improve (Dr. Friesner's) effectiveness as a leader." Comments also state that Dr. Friesner tends to avoid conflict. Faculty and Staff state that he is a "champion on behalf of students" although some comments find this a negative in that faculty and staff then do not feel supported on policy changes or student affairs matters. Several comments also identified the lack of faculty development training. Overall, Faculty and Staff comments did state that Dr. Friesner is "an effective administrator who always seems willing and eager to help."

The committee recommends that Dr. Friesner consider implementing some techniques for improving communication (although we also recognize that communication can be situational and difficult to make consistent with everyone when navigating competing interests). Regarding professional development (PD), the committee recommends that Dr. Friesner fall back on the

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College PD committee to create no-cost, low-cost PD opportunities for the College. The committee should meet every year, even in lean times where funds are low.

In conclusion, this committee finds Dr. Friesner to be an effective leader in his role as Associate Dean for the College of Health Professions at North Dakota State University. Dr. Friesner successfully navigates competing interests of faculty, staff, and students. Although, we recognize this letter identifies areas of improvement for Dr. Friesner, we do so in the spirit of encouragement because we believe Dr. Friesner possesses self-awareness of his challenge/growth areas. In fact, the faculty/staff survey responses were consistent with his own assessment of identified growth areas. Please let us know how the committee can be of further service and if you have any questions as to the methods utilized or conclusions reached.

In Health,
Dr. Abby Gold (Chair)
Ms. Karla Hauge
Ms. Wendy Kopp
Dr. Donald Miller
Ms. Polly Olson
Dr. Chengwen Sun

Attachments:

Dr. Friesner's Self-Assessment of Administrative Duties
Dr. Friesner's Summary of Current Administrative Responsibilities and Accomplishments
Dr. Friesner's Statement of Administrative and Leadership Philosophy
Qualtrics Generated Partner Survey Report
Qualtrics Generated Staff Faculty Survey Report
Qualtrics Generated Student Survey Report
Faculty and Staff Survey Summary

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Dr. Marketa Marvanova Evaluation Committee Report #1

The committee assigned to evaluate Dr. Marketa Marvanova, Chair of the Department of Pharmacy Practice, respectfully submits the following report. This report summarizes a survey of faculty, staff and external stakeholders in the College of Health Professions (CHP) and the School of Pharmacy (SOP) who routinely work with Dr. Marvanova in her capacity as Department Chair. The review was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

The Process

Dr. Charles Peterson, Dean of the CHP and the SOP, initiated the review process on September 18, 2018. Dr. Dan Friesner, Associate Dean for Student Affairs and Faculty Development in the CHP and the SOP, chaired the review committee. The other members of the review committee were: Kristine Steffen (Professor, Pharmaceutical Sciences), Mark Strand (Professor, Pharmacy Practice), Yagna Jarajapu (Associate Professor, Pharmaceutical Sciences), Jeanne Frenzel (Associate Professor, Pharmacy Practice), Amanda Brooks (Assistant Professor, Pharmaceutical Sciences), Lisa Richter (Assistant Professor, Pharmacy Practice), and Jean Trautmann (Staff, Department of Pharmacy Practice). The Committee communicated through both email and meetings. The review committee submitted its report to Dr. Peterson on January 25, 2019.

When discussing the best approach and empirical methods to assess Dr. Marvanova, the review committee noted several considerations. First, respondent anonymity (both actual and perceived) must be ensured. Second, the methods used to collect information must be valid and reliable. Third, it is vital to disaggregate responses based on the respondent's professional roles and responsibilities. Put differently, faculty in the Department of Pharmacy Practice may have very different assessments of Dr. Marvanova's work as Department Chair than other respondents. In many areas of evaluation, the responses of faculty within the Department of Pharmacy Practice may carry greater weight than other responses. Fourth, staff are an integral part of the evaluation. However, staff do not have the protection of faculty, and may have fundamentally different assessments than faculty. These distinctions may make the responses of staff who work within the Department of Pharmacy Practice potentially identifiable.

To address these issues, the review committee chose to contract with an external vendor to collect the information used to generate this report. After considering various options, the review committee chose the Kansas State University IDEA Center's Feedback System for Chairs: <https://www.ideaedu.org/Services/Leadership-Feedback-Systems/Feedback-System-for-Chairs>. The review committee concluded that the use of an external vendor was important in order to ensure respondents that their responses were truly anonymous. Perhaps more importantly, this system has been used extensively and consistently over time by many academic departments across the U.S. As such, it is extremely likely to produce valid and reliable results. It assesses more than 50 different areas of leadership germane to Department Chairs, including administrative responsibilities (21 items), personal characteristics relevant to unit leadership (11 items), administrative methods (21 items) and overall success (2 items). The system also asks Dr. Marvanova to self-assess her competencies and performance in each of these areas. Gap scoring is used to compare Dr. Marvanova's assessment with those of the respondents. Respondents also have the opportunity to provide open-ended comments.

The IDEA Center's assessment items allow for general evaluations of any given Chair's performance. The review committee also wanted to assess several issues that are potentially unique to the SOP. NDSU Policy 327 has been in place, and followed by the CHP and SOP, for a number of years. Several surveys of CHP and SOP administrators have been created and implemented as a part of these evaluations. Upon perusing these surveys, the review committee determined that the following items would be added to the IDEA system surveys:

1. The Chair shows and fosters respect and appreciation for each person, whatever that person's background, age, race, gender, disability, values, lifestyle perspectives, or interests.
2. The Chair shares governance with others when appropriate.
3. The Chair supports and defends academic freedom.
4. The Chair appropriately responds to the needs and/or suggestions of external constituencies.
5. The Chair fosters a culture of collaboration between departments in the School of Pharmacy.

All items, including the IDEA items and these items, are evaluated using 5-point Likert scales, with 1 indicating a low or negative response, 3 indicating a neutral response, and 5 indicating a high or positive response. More specifically 1 = poor, 2 = fair, 3 = in-between, 4 = good, 5 = outstanding.

To address the final concerns, the complete survey instrument (inclusive of comments, IDEA items and NDSU-authored items) was sent to two different groups of respondents, and separate, disaggregated results are provided for each group:

1. Faculty within the Department of Pharmacy Practice
2. Faculty, staff and administrators within the CHP, as well as external stakeholders identified by the Chair who work directly with Dr. Marvanova

Staff working with the Department of Pharmacy Practice were included with all other CHP staff, administrators, and faculty in the CHP, as well as external stakeholders, to ensure anonymous responses.

The survey was opened November 21, 2018, and remained open through December 19, 2018. Dr. Friesner sent emails to CHP personnel to inform them that they would receive an opportunity to participate in the process by completing the survey (and that the invitation would come from the vendor). Reminder emails were sent every 4 days to non-respondents.

After closing the survey, all responses were gathered and summarized by IDEA and forwarded to the review committee. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below.

**IDEA Feedback System for Chairs
Evaluation Committee Report – Pharmacy Practice Faculty
Dr. Marketa Marvanova**

Overall Ratings of Effectiveness

Seventeen out of 20 pharmacy practice faculty completed the online *IDEA Feedback System for Chairs* survey for Dr. Marketa Marvanova in December 2018. Overall, 52.9% of pharmacy practice faculty *agreed* or *strongly agreed* that they have confidence in Dr. Marvanova’s ability to provide future leadership to the department and 47.1% *agreed* or *strongly agreed* that Dr. Marvanova has provided excellent leadership.

Summary of IDEA Feedback System for Chairs Survey

Pharmacy practice faculty were asked to evaluate Dr. Marvanova on her responsibilities associated with the role of the department chair and her personal characteristics and administrative methods most highly related to successful accomplishment of chair responsibilities. Survey responses were scaled using a Likert of 1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*.

Strengths

Pharmacy practice faculty rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *good* for items focused on department needs, facilitating curriculum development, supporting good teaching and assessment, and overseeing essential administrative tasks, and new faculty and staff development.
2. On her personal characteristics relevant to the role of the chair as *good* for problem solving abilities, organizational skills, and practical judgement.
3. On her administrative methods as *good* for items focused on ensuring faculty are working at capacity, promoting inclusiveness and diversity, maintaining standards of performance, facilitating positive relationships between faculty and staff, and advocating for the department.

Weaknesses

Pharmacy practice faculty rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *fair* for items focused on developing collegiality and cooperation among faculty members, rewarding faculty for their contributions to the department, and stimulating faculty vitality/enthusiasm.
2. On her personal characteristics as *fair* for flexibility and adaptability in dealing with individuals and situations.
3. On her administrative methods as *fair* for the importance of faculty morale to the Chair.

Conclusion

The *IDEA Feedback System for Chairs* survey found that pharmacy practice faculty identified Dr. Marvanova a mix of as *good*, *in-between*, and *fair* (1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*) for her chair related responsibilities, personal characteristics, and administrative methods.

Items measuring *good* indicate she is a strong advocate for the department. She is focused on department needs, facilitates curriculum development, supports good teaching and assessment, and

oversees essential administrative tasks. She ensures faculty are working at capacity, maintains standards of performance, and facilitates relationships between faculty and staff.

Items measuring *fair* and indicating opportunities for professional growth included: 1) developing collegiality/cooperation among faculty members, 2) rewarding faculty in accordance with their contributions to the department, 3) stimulating or rejuvenating faculty vitality/enthusiasm, 4) flexibility/adaptability in dealing with individuals/situations, and 5) demonstrating that high faculty morale is vital to her.

As commented, pharmacy practice faculty perceive Dr. Marvanova to be an advocate for the pharmacy practice department and for faculty at clinical practice sites. Faculty appreciate her decisiveness. Areas of concern arising from the perceptions of pharmacy practice faculty include comments that Dr. Marvanova should attend more department and campus events, listen to and solicit feedback from faculty, and be more respectful of faculty time when conducting meetings. Pharmacy practice faculty feel the most important challenges facing the department which she has to overcome are diminishing student applicant pools, budget constraints, a continual need to fill open faculty positions, and faculty feeling overworked. Pharmacy practice faculty feel changes to the workload document and promotion and tenure policy as well as increased opportunities for collaboration within and outside of the faculty would contribute to department effectiveness. Of note, 'low morale' and a 'culture of fear' were phrases used several times throughout the qualitative comments. Additionally, suggestions were made that Dr. Marvanova seek trainings through the North Dakota State University Human Resources department with regard to fair faculty expectations.

Several opportunities for professional growth were noted. Dr. Marvanova is encouraged to consider actions, where appropriate, to address these opportunities.

- Dr. Marvanova is encouraged to invest more time engaging with her faculty, including prioritizing listening and soliciting input from her faculty.
- Dr. Marvanova is encouraged to empower faculty by giving them more autonomy in their work and through the support of faculty governance.
- Dr. Marvanova is encouraged to support needed changes to the workload document and promotion and tenure guidelines, as these were cited as being important to faculty. Doing so may increase faculty morale.

Dr. Marketa Marvanova Evaluation Committee Report #2

The committee assigned to evaluate Dr. Marketa Marvanova, Chair of the Department of Pharmacy Practice, respectfully submits the following report. This report summarizes a survey of faculty, staff and external reviewers in the College of Health Professions (CHP) and the School of Pharmacy (SOP) who routinely work with Dr. Marvanova in her capacity as Department Chair. The review was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

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<https://www.ideaedu.org/Services/Leadership-Feedback-Systems/Feedback-System-for-Chairs>. The review committee concluded that the use of an external vendor was important in order to ensure respondents that their responses were truly anonymous. Perhaps more importantly, this system has been used extensively and consistently over time by many academic departments across the U.S. As such, it is extremely likely to produce valid and reliable results. It assesses more than 50 different areas of leadership germane to Department Chairs, including administrative responsibilities (21 items), personal characteristics relevant to unit leadership (11 items), administrative methods (21 items) and overall success (2 items). The system also asks Dr. Marvanova to self-assess her competencies and performance in each of these areas. Gap scoring is used to compare Dr. Marvanova's assessment with those of the respondents. Respondents also have the opportunity to provide open-ended comments.

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To address the final concerns, the complete survey instrument (inclusive of comments, IDEA items and NDSU-authored items) was sent to two different groups of respondents, and separate, disaggregated results are provided for each group:

1. Faculty within the Department of Pharmacy Practice
2. Faculty, staff and administrators within the CHP, as well as external stakeholders identified by the Chair who work directly with Dr. Marvanova

Staff working with the Department of Pharmacy Practice were included with all other CHP staff, administrators, and faculty in the CHP, as well as external stakeholders, to ensure anonymous responses.

The survey was opened November 21, 2018, and remained open through December 19, 2018. Dr. Friesner sent emails to CHP personnel to inform them that they would receive an opportunity to participate in the process by completing the survey (and that the invitation would come from the vendor). Reminder emails were sent every 4 days to non-respondents.

After closing the survey, all responses were gathered and summarized by IDEA and forwarded to the review committee. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below.

IDEA Feedback System for Chairs
Evaluation Committee Report – Pharmaceutical Sciences, Staff, and External Reviewers Ratings
Dr. Marketa Marvanova

Overall Ratings of Effectiveness

Twenty-nine out of 56 pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers completed the online *IDEA Feedback System for Chairs* survey for Dr. Marketa Marvanova in December 2018. Overall, 82.6% pharmaceutical sciences faculty, School of pharmacy staff, and external faculty, *agreed or strongly agreed* that they have confidence in Dr. Marvanova’s ability to provide future leadership to the department and 83.3% *agreed or strongly agreed* that Dr. Marvanova has provided excellent leadership.

Summary of IDEA Feedback System for Chairs Survey

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers were asked to evaluate Dr. Marvanova on her responsibilities associated with the role of the department chair and her personal characteristics and administrative methods most highly related to successful accomplishment of chair responsibilities. Survey responses were scaled using a Likert of 1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*.

Strengths

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *good* for attending to administrative tasks, fostering good teaching and assessment of student learning, leading in establishing and monitoring department goals, developing sound procedures for assessing faculty performance, communicating the department’s needs to administrators, communicating expectations of campus administration to faculty, promoting the department to off-campus constituencies, guiding the development of a plan to carry out departmental programs, facilitating curriculum development, stimulating research, scholarly activity, and/or creative endeavors, promoting a positive image of the department on campus, fostering the development of faculty member’s talents, facilitating successful recruitment of faculty, and ensuring that new faculty and staff are acquainted with departmental procedures, priorities, and expectations.
2. On all her personal characteristics as *good* including problem solving abilities, practical judgment, consistency, trustworthy, organizational skills, enterprising, institution-centered, clarity, demonstrates caring, fairness, and flexibility/adaptability in dealing with individuals/situations.
3. On her administrative methods as *good* for maintaining standards of performance, advocating for departmental interests to higher authorities, ensuring faculty are working up to capacity, lets faculty members know what is expected of them, provides feedback to faculty, allocates faculty responsibilities in an effective and equitable manner, tries out new ideas with the faculty, ensures work of the faculty is coordinated, puts faculty suggestions into action, explains the basis for her decisions, acts as though visible department accomplishments were vital to her, makes sound suggestions for developing/changing departmental directions/priorities, promotes inclusiveness and diversity among students and faculty, lets faculty members know when they have done a good job, makes sure her part in the department is understood by all members, encourages teamwork among members of the faculty, and facilitates positive relationships between faculty and the clerical/technical staff.

Weaknesses

None of the evaluated areas were rated as *fair* by the Pharmaceutical sciences faculty, School of Pharmacy staff, or external reviewers.

Conclusion

The *IDEA Feedback System for Chairs* survey found that the Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers identified Dr. Marvanova a mix of as *good* and *in-between* (1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*) for her chair related responsibilities, personal characteristics, and administrative methods.

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewer comments from the *IDEA Feedback System for Chairs* survey identified Dr. Marvanova as *good* or *in-between* for her chair related responsibilities and administrative methods, and *good* for personal characteristics. She is perceived to be a strong advocate for the pharmacy practice department. Pharmaceutical sciences, staff, and external reviewers suggest that she attempt to strengthen her engagement with faculty and others and work on promoting a positive culture within the College. These respondents recognize that budget constraints, student recruitment, and faculty recruitment and retention have been challenges for Dr. Marvanova.

APPENDIX 8M

Dr. Jagdish Singh Evaluation Committee Report

The committee assigned to evaluate Dr. Jagdish Singh, Chair of the Department of Pharmaceutical Sciences, respectfully submits the following report. This report summarizes a survey of faculty, staff and students in the College of Health Professions (CHP) and the School of Pharmacy (SOP) who routinely work with Dr. Singh in his capacity as Department Chair. The review was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

The Process

Dr. Charles Peterson, Dean of the CHP and the SOP, initiated the review process on September 18, 2018. Dr. Dan Friesner, Associate Dean for Student Affairs and Faculty Development in the CHP and the SOP, chaired the review committee. The other members of the review committee were: Kristine Steffen (Professor, Pharmaceutical Sciences), Mark Strand (Professor, Pharmacy Practice), Yagna Jarajapu (Associate Professor, Pharmaceutical Sciences), Jeanne Frenzel (Associate Professor, Pharmacy Practice), Amanda Brooks (Assistant Professor, Pharmaceutical Sciences), Lisa Richter (Assistant Professor, Pharmacy Practice), and Jean Trautmann (Staff, Department of Pharmacy Practice). The Committee communicated through both email and meetings. The review committee submitted its report to Dr. Peterson on January 25, 2019.

When discussing the best approach and empirical methods to assess Dr. Singh, the review committee noted several considerations. First, respondent anonymity (both actual and perceived) must be ensured. Second, the methods used to collect information must be valid and reliable. Third, it is vital to disaggregate responses based on the respondent's professional roles and responsibilities. Put differently, faculty in the Department of Pharmaceutical Sciences may have very different assessments of Dr. Singh's work as Department Chair than other respondents. In many areas of evaluation, the responses of faculty within the Department of Pharmaceutical Sciences may carry greater weight than other responses. Fourth, staff are an integral part of the evaluation. However, staff do not have the protection of faculty, and may have fundamentally different assessments than faculty. These distinctions may make the responses of staff who work within the Department of Pharmaceutical Sciences potentially identifiable.

To address these issues, the review committee chose to contract with an external vendor to collect the information used to generate this report. After considering various options, the review committee chose the Kansas State University IDEA Center's Feedback System for Chairs: <https://www.ideaedu.org/Services/Leadership-Feedback-Systems/Feedback-System-for-Chairs>. The review committee concluded that the use of an external vendor was important in order to ensure respondents that their responses were truly anonymous. Perhaps more importantly, this system has been used extensively and consistently over time by many academic departments across the U.S. As such, it is extremely likely to produce valid and reliable results. It assesses more than 50 different areas of leadership germane to Department Chairs, including administrative responsibilities (21 items), personal characteristics relevant to unit leadership (11 items), administrative methods (21 items) and overall success (2 items). The system also asks Dr. Singh to self-assess his competencies and performance in each of these areas. Gap scoring is used to compare Dr. Singh's assessment with those of the respondents. Respondents also have the opportunity to provide open-ended comments.

The IDEA Center's assessment items allow for general evaluations of any given Chair's performance. The review committee also wanted to assess several issues that are potentially unique to the SOP. NDSU

Policy 327 has been in place, and followed by the CHP and SOP, for a number of years. Several surveys of CHP and SOP administrators have been created and implemented as a part of these evaluations. Upon perusing these surveys, the review committee determined that the following items would be added to the IDEA system surveys:

1. The Chair shows and fosters respect and appreciation for each person, whatever that person's background, age, race, gender, disability, values, lifestyle perspectives, or interests.
2. The Chair shares governance with others when appropriate.
3. The Chair supports and defends academic freedom.
4. The Chair appropriately responds to the needs and/or suggestions of external constituencies.
5. The Chair fosters a culture of collaboration between departments in the School of Pharmacy.

All items, including the IDEA items and these items, are evaluated using 5-point Likert scales, with 1 indicating a low or negative response, 3 indicating a neutral response, and 5 indicating a high or positive response. More specifically 1 = poor, 2 = fair, 3 = in-between, 4 = good, 5 = outstanding.

To address the final concerns, the complete survey instrument (inclusive of comments, IDEA items and NDSU-authored items) was sent to three different groups of respondents, and separate, disaggregated results are provided for each group:

1. Faculty within the Department of Pharmaceutical Sciences
2. Faculty, staff and administrators within the CHP who work directly with Dr. Singh
3. Graduate students in the Ph.D. program in Pharmaceutical Sciences

With regard to the latter two groups, Dr. Singh declined to provide names and contact information for external stakeholders outside of the CHP to survey. He did, however, request that graduate students be surveyed. Staff working with the Department of Pharmaceutical Sciences were included with all other CHP staff, administrators and faculty in the CHP to ensure anonymous responses.

The survey was opened November 21, 2018, and remained open through December 19, 2018. Dr. Friesner sent emails to CHP personnel to inform them that they would receive an opportunity to participate in the process by completing the survey (and that the invitation would come from the vendor). Reminder emails were sent every 4 days to non-respondents.

After closing the survey, all responses were gathered and summarized by IDEA and forwarded to the review committee. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below. A full set of responses is attached to this report as an appendix.

Dr. Singh Evaluation Summary

Demographics

Faculty: Ten of twelve faculty surveyed responded for a response rate of 83%

Graduate students: A total of 14 graduate students in the Department of Pharmaceutical Sciences responded for a response rate of 54%.

SOP Respondents: Thirty-six individuals from the School of Pharmacy responded for a response rate of 68%.

Overall Effectiveness

Among the faculty in the department of pharmaceutical sciences, 70% agreed or strongly agreed (A/SA) that have confidence in the chair's ability to provide future leadership to the department and 60% agreed or strongly agreed that overall the chair has provided excellent leadership. Ratings by the graduate students were slightly higher at 79% (4.1/5, A/SA) and 86% (4.3/5, A/SA) respectively. While 78% of SOP respondents agreed or strongly agreed that they have confidence in the chair's ability to provide future leadership to the department and overall the chair has provided excellent leadership.

Responsibilities

Among the department faculty, 15 of the 21 attributes assessed rated above 70% with 6 rating between 50 and 69%. The highest rated attributes were attending to essential administrative tasks (90%) and communicating the department needs to the dean and other appropriate administrators (90%). Graduate student respondents also noted several of the same strengths. He has received the highest rating of 4.6 with an overwhelming majority of responders, 90%, indicating A/SA for 'attending to essential administrative tasks', an important attribute of 'responsibilities'. SOP respondents all (100%) gave a positive rating ("good" or "outstanding") that the chair assists in securing funding from external sources (grants, contracts, partnerships etc.). Communicating the department's needs (e.g., personnel, space, monetary, technology) to the dean and other appropriate administrators (94%) and stimulating research, scholarly activity, and/or creative endeavors in the department (93%) were also noted strengths.

The faculty respondents identified developing collegiality/cooperation (50%, A/SA) and facilitating curriculum development (56%, A/SA) as areas for improvement while the chair ranked them as high priority. Graduate students identified 'Guiding the development of sound procedures for assessing faculty performance' and 'fostering the development of each faculty member's special talents and interests', which received ratings of 3.6 and 3.7 with only 63% and 66%, respectively, indicating A/SA. An area for improvement, based on the SOP respondents included facilitating curriculum development, which was rated positively by 35% of respondents and rated as a high priority item by the chair. Additionally, guiding the development of sound procedures for assessing faculty performance (47%, A/SA) and fostering good teaching in the department (encourages course updating, the use of appropriate technology, attending to student feedback) (50%, A/SA) were noted as areas for development. These areas were also noted as high priority items by the chair.

Administrative Characteristics

Generally, the faculty rated the chair highly for his personal characteristics with the highest (90%) rated attributes being practical judgment and institution-centered. The graduate students also rated the chair highly for his personal characteristics. He received a minimum rating of 4 (out of five), in nine of the eleven attributes that are indicators of his persona. The survey revealed that graduate students highly appreciate that he is trustworthy and institution-centered, which have received ratings of 4.3 and 4.4, respectively, with 86% of responders A/SA. Among the other attributes of responsibilities, he received rating of 4.5 or 4.4 for 'promoting a positive image of the department within the campus community and to off-campus constituencies by a response rate (77 and 75%) indicating A/SA. Written comments further emphasized that the chair has several strengths that include leadership, problem solving, caring, approachability, to list a few. Some strong characteristics and administrative methods of the chair that SOP respondents rated as positive ("more strength than a weakness" or "definite strength) included enterprising (95%), provides feedback to faculty on their major activities (91%), problem solving ability (89%) and effectively advocates for departmental interests to higher authorities (89%) were noted in the evaluation.

The faculty indicated that consistency (3.8) and clarity (3.9) are both areas of personal improvement (60%), while graduate students giving "fairness" an average rating of 3.6 with only 50% indicating A/SA and 4 neutral responders. Both faculty (50%) and graduate students (66%) rated the attribute, 'makes sure the work of the faculty is coordinated'. Additionally, faculty noted that promoting inclusiveness and diversity (60% or mean 3.9/5) and reducing, resolving, and/or preventing conflict among departmental faculty members (60% and mean 3.8/5) are areas of improvement. SOP respondents offered some insight into areas for improvement in reducing, resolving and/or preventing conflict among department members (56% positive ratings) clarity and allocates faculty responsibilities in an effective and equitable manner (both 60% positive ratings). This was well aligned with the faculty responses

Extra Questions

Faculty rated the chair's "appropriately responds to the needs and/or suggestions of external constituencies" the highest at 4.4/5, while they noted the attribute with the greatest area for improvement are "shows and fosters respect and appreciation for each person, whatever that person's background, age, race, gender, disability, values, lifestyle perspectives, or interests", which averaged 3.8/5 with 10 respondents. In line with the faculty respondents (3.7/5), the SOP respondents indicated that the chair "supports and defends academic freedom" was most highly rated at 4.3 while "fosters a culture of collaboration between departments in the School of Pharmacy" was the lowest rated attribute at 3.5. All responses to these questions were answered above the neutral range (average 3.5-4.3). Among the 14 graduate student responders, all attributes were highly rated, varying between 4.1 and 4.4.

Comments

Written comments from the faculty noted several strengths, including professionalism and caring, honesty, leadership, and support of faculty and students. Written comments from the graduate students further emphasized that the chair has several strengths that include leadership, problem solving, caring, approachability, to list a few. Many positive comments from SOP respondents were noted surrounding leadership (4 of 11 comments), research (4 comments) and friendliness (3

comments). Several examples include: “Chair clearly advocates for his department and priorities” as well as “He is a friendly person. He has a strong interest in grant funding and research for his department.”

Some faculty comments indicate that there are areas for growth, including dealing with conflict, promoting inclusiveness, being respectful of students and other departments, and ending favoritism. Graduate student comments also indicated some challenges that are currently being experienced, which included lack of infrastructure. A few comments indeed questions chair’s ‘culture-of-respect’ in the department, which is in agreement with the previous evaluation. From SOP respondents, comments for improvement were largely related to development of teaching in the department (4 of 12 comments), being more involved in the SOP (4 comments) and communication/listening (4 comments). Several examples include: “Challenge the Pharmaceutical Sciences faculty to engage in the PharmD Program as a program, not just a teaching responsibility. Holding Pharmaceutical Sciences faculty accountable for developing as teachers. Holding Pharmaceutical Sciences faculty accountable for improving teaching (i.e. writing measurable objectives, utilizing active learning, promoting long-term understanding/retention of concepts rather than memorization, coordinating among team-teaching faculty).” Other comments included: “Be more active within the School of Pharmacy - attend committee meetings and positively contribute to tasks” and “Listen more. Talk a lot less. Listen to EVERYONE no matter who they are. Treat everyone with the same amount of respect and equality. Don’t play favorites.”

Dr. Marketa Marvanova Evaluation Committee Report #1

The committee assigned to evaluate Dr. Marketa Marvanova, Chair of the Department of Pharmacy Practice, respectfully submits the following report. This report summarizes a survey of faculty, staff and external stakeholders in the College of Health Professions (CHP) and the School of Pharmacy (SOP) who routinely work with Dr. Marvanova in her capacity as Department Chair. The review was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

The Process

Dr. Charles Peterson, Dean of the CHP and the SOP, initiated the review process on September 18, 2018. Dr. Dan Friesner, Associate Dean for Student Affairs and Faculty Development in the CHP and the SOP, chaired the review committee. The other members of the review committee were: Kristine Steffen (Professor, Pharmaceutical Sciences), Mark Strand (Professor, Pharmacy Practice), Yagna Jarajapu (Associate Professor, Pharmaceutical Sciences), Jeanne Frenzel (Associate Professor, Pharmacy Practice), Amanda Brooks (Assistant Professor, Pharmaceutical Sciences), Lisa Richter (Assistant Professor, Pharmacy Practice), and Jean Trautmann (Staff, Department of Pharmacy Practice). The Committee communicated through both email and meetings. The review committee submitted its report to Dr. Peterson on January 25, 2019.

When discussing the best approach and empirical methods to assess Dr. Marvanova, the review committee noted several considerations. First, respondent anonymity (both actual and perceived) must be ensured. Second, the methods used to collect information must be valid and reliable. Third, it is vital to disaggregate responses based on the respondent's professional roles and responsibilities. Put differently, faculty in the Department of Pharmacy Practice may have very different assessments of Dr. Marvanova's work as Department Chair than other respondents. In many areas of evaluation, the responses of faculty within the Department of Pharmacy Practice may carry greater weight than other responses. Fourth, staff are an integral part of the evaluation. However, staff do not have the protection of faculty, and may have fundamentally different assessments than faculty. These distinctions may make the responses of staff who work within the Department of Pharmacy Practice potentially identifiable.

To address these issues, the review committee chose to contract with an external vendor to collect the information used to generate this report. After considering various options, the review committee chose the Kansas State University IDEA Center's Feedback System for Chairs: <https://www.ideaedu.org/Services/Leadership-Feedback-Systems/Feedback-System-for-Chairs>. The review committee concluded that the use of an external vendor was important in order to ensure respondents that their responses were truly anonymous. Perhaps more importantly, this system has been used extensively and consistently over time by many academic departments across the U.S. As such, it is extremely likely to produce valid and reliable results. It assesses more than 50 different areas of leadership germane to Department Chairs, including administrative responsibilities (21 items), personal characteristics relevant to unit leadership (11 items), administrative methods (21 items) and overall success (2 items). The system also asks Dr. Marvanova to self-assess her competencies and performance in each of these areas. Gap scoring is used to compare Dr. Marvanova's assessment with those of the respondents. Respondents also have the opportunity to provide open-ended comments.

The IDEA Center's assessment items allow for general evaluations of any given Chair's performance. The review committee also wanted to assess several issues that are potentially unique to the SOP. NDSU Policy 327 has been in place, and followed by the CHP and SOP, for a number of years. Several surveys of CHP and SOP administrators have been created and implemented as a part of these evaluations. Upon perusing these surveys, the review committee determined that the following items would be added to the IDEA system surveys:

1. The Chair shows and fosters respect and appreciation for each person, whatever that person's background, age, race, gender, disability, values, lifestyle perspectives, or interests.
2. The Chair shares governance with others when appropriate.
3. The Chair supports and defends academic freedom.
4. The Chair appropriately responds to the needs and/or suggestions of external constituencies.
5. The Chair fosters a culture of collaboration between departments in the School of Pharmacy.

All items, including the IDEA items and these items, are evaluated using 5-point Likert scales, with 1 indicating a low or negative response, 3 indicating a neutral response, and 5 indicating a high or positive response. More specifically 1 = poor, 2 = fair, 3 = in-between, 4 = good, 5 = outstanding.

To address the final concerns, the complete survey instrument (inclusive of comments, IDEA items and NDSU-authored items) was sent to two different groups of respondents, and separate, disaggregated results are provided for each group:

1. Faculty within the Department of Pharmacy Practice
2. Faculty, staff and administrators within the CHP, as well as external stakeholders identified by the Chair who work directly with Dr. Marvanova

Staff working with the Department of Pharmacy Practice were included with all other CHP staff, administrators, and faculty in the CHP, as well as external stakeholders, to ensure anonymous responses.

The survey was opened November 21, 2018, and remained open through December 19, 2018. Dr. Friesner sent emails to CHP personnel to inform them that they would receive an opportunity to participate in the process by completing the survey (and that the invitation would come from the vendor). Reminder emails were sent every 4 days to non-respondents.

After closing the survey, all responses were gathered and summarized by IDEA and forwarded to the review committee. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below.

**IDEA Feedback System for Chairs
Evaluation Committee Report – Pharmacy Practice Faculty
Dr. Marketa Marvanova**

Overall Ratings of Effectiveness

Seventeen out of 20 pharmacy practice faculty completed the online *IDEA Feedback System for Chairs* survey for Dr. Marketa Marvanova in December 2018. Overall, 52.9% of pharmacy practice faculty *agreed* or *strongly agreed* that they have confidence in Dr. Marvanova’s ability to provide future leadership to the department and 47.1% *agreed* or *strongly agreed* that Dr. Marvanova has provided excellent leadership.

Summary of IDEA Feedback System for Chairs Survey

Pharmacy practice faculty were asked to evaluate Dr. Marvanova on her responsibilities associated with the role of the department chair and her personal characteristics and administrative methods most highly related to successful accomplishment of chair responsibilities. Survey responses were scaled using a Likert of 1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*.

Strengths

Pharmacy practice faculty rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *good* for items focused on department needs, facilitating curriculum development, supporting good teaching and assessment, and overseeing essential administrative tasks, and new faculty and staff development.
2. On her personal characteristics relevant to the role of the chair as *good* for problem solving abilities, organizational skills, and practical judgement.
3. On her administrative methods as *good* for items focused on ensuring faculty are working at capacity, promoting inclusiveness and diversity, maintaining standards of performance, facilitating positive relationships between faculty and staff, and advocating for the department.

Weaknesses

Pharmacy practice faculty rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *fair* for items focused on developing collegiality and cooperation among faculty members, rewarding faculty for their contributions to the department, and stimulating faculty vitality/enthusiasm.
2. On her personal characteristics as *fair* for flexibility and adaptability in dealing with individuals and situations.
3. On her administrative methods as *fair* for the importance of faculty morale to the Chair.

Conclusion

The *IDEA Feedback System for Chairs* survey found that pharmacy practice faculty identified Dr. Marvanova a mix of as *good*, *in-between*, and *fair* (1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*) for her chair related responsibilities, personal characteristics, and administrative methods.

Items measuring *good* indicate she is a strong advocate for the department. She is focused on department needs, facilitates curriculum development, supports good teaching and assessment, and

oversees essential administrative tasks. She ensures faculty are working at capacity, maintains standards of performance, and facilitates relationships between faculty and staff.

Items measuring *fair* and indicating opportunities for professional growth included: 1) developing collegiality/cooperation among faculty members, 2) rewarding faculty in accordance with their contributions to the department, 3) stimulating or rejuvenating faculty vitality/enthusiasm, 4) flexibility/adaptability in dealing with individuals/situations, and 5) demonstrating that high faculty morale is vital to her.

As commented, pharmacy practice faculty perceive Dr. Marvanova to be an advocate for the pharmacy practice department and for faculty at clinical practice sites. Faculty appreciate her decisiveness. Areas of concern arising from the perceptions of pharmacy practice faculty include comments that Dr. Marvanova should attend more department and campus events, listen to and solicit feedback from faculty, and be more respectful of faculty time when conducting meetings. Pharmacy practice faculty feel the most important challenges facing the department which she has to overcome are diminishing student applicant pools, budget constraints, a continual need to fill open faculty positions, and faculty feeling overworked. Pharmacy practice faculty feel changes to the workload document and promotion and tenure policy as well as increased opportunities for collaboration within and outside of the faculty would contribute to department effectiveness. Of note, 'low morale' and a 'culture of fear' were phrases used several times throughout the qualitative comments. Additionally, suggestions were made that Dr. Marvanova seek trainings through the North Dakota State University Human Resources department with regard to fair faculty expectations.

Several opportunities for professional growth were noted. Dr. Marvanova is encouraged to consider actions, where appropriate, to address these opportunities.

- Dr. Marvanova is encouraged to invest more time engaging with her faculty, including prioritizing listening and soliciting input from her faculty.
- Dr. Marvanova is encouraged to empower faculty by giving them more autonomy in their work and through the support of faculty governance.
- Dr. Marvanova is encouraged to support needed changes to the workload document and promotion and tenure guidelines, as these were cited as being important to faculty. Doing so may increase faculty morale.

Dr. Marketa Marvanova Evaluation Committee Report #2

The committee assigned to evaluate Dr. Marketa Marvanova, Chair of the Department of Pharmacy Practice, respectfully submits the following report. This report summarizes a survey of faculty, staff and external reviewers in the College of Health Professions (CHP) and the School of Pharmacy (SOP) who routinely work with Dr. Marvanova in her capacity as Department Chair. The review was conducted in accordance with NDSU Policy 327: Evaluation of Academic Deans, Directors, and Department Chairs/Heads.

The Process

Dr. Charles Peterson, Dean of the CHP and the SOP, initiated the review process on September 18, 2018. Dr. Dan Friesner, Associate Dean for Student Affairs and Faculty Development in the CHP and the SOP, chaired the review committee. The other members of the review committee were: Kristine Steffen (Professor, Pharmaceutical Sciences), Mark Strand (Professor, Pharmacy Practice), Yagna Jarajapu (Associate Professor, Pharmaceutical Sciences), Jeanne Frenzel (Associate Professor, Pharmacy Practice), Amanda Brooks (Assistant Professor, Pharmaceutical Sciences), Lisa Richter (Assistant Professor, Pharmacy Practice), and Jean Trautmann (Staff, Department of Pharmacy Practice). The Committee communicated through both email and meetings. The review committee submitted its report to Dr. Peterson on January 25, 2019.

When discussing the best approach and empirical methods to assess Dr. Marvanova, the review committee noted several considerations. First, respondent anonymity (both actual and perceived) must be ensured. Second, the methods used to collect information must be valid and reliable. Third, it is vital to disaggregate responses based on the respondent's professional roles and responsibilities. Put differently, faculty in the Department of Pharmacy Practice may have very different assessments of Dr. Marvanova's work as Department Chair than other respondents. In many areas of evaluation, the responses of faculty within the Department of Pharmacy Practice may carry greater weight than other responses. Fourth, staff are an integral part of the evaluation. However, staff do not have the protection of faculty, and may have fundamentally different assessments than faculty. These distinctions may make the responses of staff who work within the Department of Pharmacy Practice potentially identifiable.

To address these issues, the review committee chose to contract with an external vendor to collect the information used to generate this report. After considering various options, the review committee chose the Kansas State University IDEA Center's Feedback System for Chairs:

<https://www.ideaedu.org/Services/Leadership-Feedback-Systems/Feedback-System-for-Chairs>. The review committee concluded that the use of an external vendor was important in order to ensure respondents that their responses were truly anonymous. Perhaps more importantly, this system has been used extensively and consistently over time by many academic departments across the U.S. As such, it is extremely likely to produce valid and reliable results. It assesses more than 50 different areas of leadership germane to Department Chairs, including administrative responsibilities (21 items), personal characteristics relevant to unit leadership (11 items), administrative methods (21 items) and overall success (2 items). The system also asks Dr. Marvanova to self-assess her competencies and performance in each of these areas. Gap scoring is used to compare Dr. Marvanova's assessment with those of the respondents. Respondents also have the opportunity to provide open-ended comments.

The IDEA Center's assessment items allow for general evaluations of any given Chair's performance. The review committee also wanted to assess several issues that are potentially unique to the SOP. NDSU Policy 327 has been in place, and followed by the CHP and SOP, for a number of years. Several surveys of CHP and SOP administrators have been created and implemented as a part of these evaluations. Upon perusing these surveys, the review committee determined that the following items would be added to the IDEA system surveys:

1. The Chair shows and fosters respect and appreciation for each person, whatever that person's background, age, race, gender, disability, values, lifestyle perspectives, or interests.
2. The Chair shares governance with others when appropriate.
3. The Chair supports and defends academic freedom.
4. The Chair appropriately responds to the needs and/or suggestions of external constituencies.
5. The Chair fosters a culture of collaboration between departments in the School of Pharmacy.

All items, including the IDEA items and these items, are evaluated using 5-point Likert scales, with 1 indicating a low or negative response, 3 indicating a neutral response, and 5 indicating a high or positive response. More specifically 1 = poor, 2 = fair, 3 = in-between, 4 = good, 5 = outstanding.

To address the final concerns, the complete survey instrument (inclusive of comments, IDEA items and NDSU-authored items) was sent to two different groups of respondents, and separate, disaggregated results are provided for each group:

1. Faculty within the Department of Pharmacy Practice
2. Faculty, staff and administrators within the CHP, as well as external stakeholders identified by the Chair who work directly with Dr. Marvanova

Staff working with the Department of Pharmacy Practice were included with all other CHP staff, administrators, and faculty in the CHP, as well as external stakeholders, to ensure anonymous responses.

The survey was opened November 21, 2018, and remained open through December 19, 2018. Dr. Friesner sent emails to CHP personnel to inform them that they would receive an opportunity to participate in the process by completing the survey (and that the invitation would come from the vendor). Reminder emails were sent every 4 days to non-respondents.

After closing the survey, all responses were gathered and summarized by IDEA and forwarded to the review committee. Survey items with five point response scales were summarized using descriptive statistics. Open-ended comments were compiled and major themes were identified. These summaries are provided below.

IDEA Feedback System for Chairs
Evaluation Committee Report – Pharmaceutical Sciences, Staff, and External Reviewers Ratings
Dr. Marketa Marvanova

Overall Ratings of Effectiveness

Twenty-nine out of 56 pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers completed the online *IDEA Feedback System for Chairs* survey for Dr. Marketa Marvanova in December 2018. Overall, 82.6% pharmaceutical sciences faculty, School of pharmacy staff, and external faculty, *agreed or strongly agreed* that they have confidence in Dr. Marvanova’s ability to provide future leadership to the department and 83.3% *agreed or strongly agreed* that Dr. Marvanova has provided excellent leadership.

Summary of IDEA Feedback System for Chairs Survey

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers were asked to evaluate Dr. Marvanova on her responsibilities associated with the role of the department chair and her personal characteristics and administrative methods most highly related to successful accomplishment of chair responsibilities. Survey responses were scaled using a Likert of 1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*.

Strengths

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers rated Dr. Marvanova:

1. On her responsibilities relevant to the role of the chair as *good* for attending to administrative tasks, fostering good teaching and assessment of student learning, leading in establishing and monitoring department goals, developing sound procedures for assessing faculty performance, communicating the department’s needs to administrators, communicating expectations of campus administration to faculty, promoting the department to off-campus constituencies, guiding the development of a plan to carry out departmental programs, facilitating curriculum development, stimulating research, scholarly activity, and/or creative endeavors, promoting a positive image of the department on campus, fostering the development of faculty member’s talents, facilitating successful recruitment of faculty, and ensuring that new faculty and staff are acquainted with departmental procedures, priorities, and expectations.
2. On all her personal characteristics as *good* including problem solving abilities, practical judgment, consistency, trustworthy, organizational skills, enterprising, institution-centered, clarity, demonstrates caring, fairness, and flexibility/adaptability in dealing with individuals/situations.
3. On her administrative methods as *good* for maintaining standards of performance, advocating for departmental interests to higher authorities, ensuring faculty are working up to capacity, lets faculty members know what is expected of them, provides feedback to faculty, allocates faculty responsibilities in an effective and equitable manner, tries out new ideas with the faculty, ensures work of the faculty is coordinated, puts faculty suggestions into action, explains the basis for her decisions, acts as though visible department accomplishments were vital to her, makes sound suggestions for developing/changing departmental directions/priorities, promotes inclusiveness and diversity among students and faculty, lets faculty members know when they have done a good job, makes sure her part in the department is understood by all members, encourages teamwork among members of the faculty, and facilitates positive relationships between faculty and the clerical/technical staff.

Weaknesses

None of the evaluated areas were rated as *fair* by the Pharmaceutical sciences faculty, School of Pharmacy staff, or external reviewers.

Conclusion

The *IDEA Feedback System for Chairs* survey found that the Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewers identified Dr. Marvanova a mix of as *good* and *in-between* (1 = *poor*, 2 = *fair*, 3 = *in-between*, 4 = *good*, 5 = *outstanding*) for her chair related responsibilities, personal characteristics, and administrative methods.

Pharmaceutical sciences faculty, School of Pharmacy staff, and external reviewer comments from the *IDEA Feedback System for Chairs* survey identified Dr. Marvanova as *good* or *in-between* for her chair related responsibilities and administrative methods, and *good* for personal characteristics. She is perceived to be a strong advocate for the pharmacy practice department. Pharmaceutical sciences, staff, and external reviewers suggest that she attempt to strengthen her engagement with faculty and others and work on promoting a positive culture within the College. These respondents recognize that budget constraints, student recruitment, and faculty recruitment and retention have been challenges for Dr. Marvanova.

APPENDIX 80

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019							
EDUCATIONAL OUTCOMES (ACPE Standards 1-4, 11, 12, 25.6, 25.8)	TIMELINE	METHOD	Metric	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
ABO 1 Foundational Knowledge ABO 2 Essentials for Practice and Care ABO 3 Approach to Practice and Care ABO 4 Personal and Professional Development	Fall Spring	Summative, AACP Surveys, Std Natl Exam	% Ave All Summative, % =/> BM	D/I*	ExamSoft Preceptors NABP Ext Surveys	Experiential Educ Instructional Designer Sr Associate Dean	Assessment Committee Curriculum Committee Experiential Education
See Student Learning Outcome Assessment Plan for more details							
APPE Readiness							
IPPE Preceptor Evaluation of Students							
Institutional Preceptor Evaluation of Students (IPPE I) Community Preceptor Evaluation of Students (IPPE II)	July	Evaluation Rubric	Mean Score (1-5)	D	Evaluate Report	Experiential	Students Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Key Course Performance, Successful Students		May	Summative Assessments / Practical Exam - Successful Students Only	D	ExamSoft	Course Coordinators Senior Associate Dean	
Phrm 450 Self-Care							
Phrm 475 Pharmacy Management							
Phrm 500 Top Drugs II							
Phrm 520 Special Populations							
Phrm 540 Public Health for Pharmacists							
Phrm 560 Specialty Topics							
Phrm 572 Pharmacy Law and Ethics							
Phrm 580 Pharmacotherapy Capstone							
Phrm 552L Pharmacy Practice Lab - Comprehensive Practical Exams							
PCOA - P3 year, Total mean scale score (National) PCOA - P3 year, Mean percentile for program	February	Standardized Exam	Mean SS (Nat) Percentile	D	NABP	Sr. Associate Dean	
Personal and Professional Development		July	Evaluation Rubric	D	Evaluate Report	Experiential	
Mean composite [#] score (1-5) IPPE Preceptor Evaluation of Students							
Phrm 355 IPPE I - Institutional Phrm 455 IPPE II - Community							
Ave Didactic Score, Student Learning Outcomes Assessment, ABO 4.1 Self-Awareness Ave Didactic Score, Student Learning Outcomes Assessment ABO 4.4 Professionalism Co-Curriculum - Self-Awareness (ABO 4.1), Professionalism (ABO 4.4)	Spring	Summative Assessments	% Ave All Summative Assessments	D	ExamSoft	Instructional Designer	
	Fall/Spring	Reflection			ePortfolio	Faculty	
AACP Survey Responses		Mar-May "Odd" Yrs	Standardized Survey	I	AACP	Sr. Associate Dean	
Student Q35. I was academically prepared to enter my APPE's. Alumni Q9. I was academically prepared to enter APPE.							

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

EDUCATIONAL OUTCOMES (ACPE Standards 1-4, 11, 12, 25.6, 25.8)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Interprofessional Team Readiness							
Co-Curriculum - ABO's 3.4 Interprofessional Collaboration + 4.1, 4.2, 4.3, 4.4	Fall/Spring	Reflection	Mean Score	I	ePortfolio	Faculty	Students
CHP 400 Interprofessional Healthcare Practice - IPEC Competency Survey	May	Survey	% Ave Score	D	Qualtrics	Faculty Sr. Associate Dean	Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Team-Based Collaborative Care Simulation Score		Sim Rubric			Exam Soft		
Summative Assessment Score		Course Ave%					
Overall % Ave Score Summative Assessments, ABO 3.4 IP Collaboration	May	Summative A.					
APPE Preceptor Evaluation of Students, Mean Score (1-5)	June	Evaluation Rubric	Mean Score (1-5)	D	Evaluate Report	Experiential	Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Student establishes a climate of accountability, mutual respect, and shared values with members of the interprofessional team to meet patient and population care needs. (ABO 3.4.1)							
Student incorporates the knowledge, skills, and abilities of each member of the interprofessional team to provide care that is safe, timely, efficient, effective, and equitable. (ABO 3.4.2)							
Student communicates in a manner that values team based decision making and shows respect for contributions from other areas of expertise. (ABO 3.4.3)							
AACP Survey Responses	Mar-May	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Student Q3. The learning experience with other professions students helped me gain a better understanding of how to be part of a multi-disciplinary team to improve patient outcomes.							
Student Q15. The PharmD Program prepared me to engage as a member of an interprofessional healthcare team.							
Student Q38. My pharmacy practice experiences allowed me to collaborate with other health care professionals.							
Preceptor Q30. The PharmD program prepares students to engage as a member of an interprofessional healthcare team.	May-Aug "Even" Yrs						
Alumni Q25. The PharmD program prepared me to engage as a member of an interprofessional healthcare team.	May-Aug "Odd" Yrs						

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

EDUCATIONAL OUTCOMES (ACPE Standards 1-4, 11, 12, 25.6, 25.8)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Practice Readiness							
Co-Curriculum - Direct Patient Care Practice Essentials ABOs 2.3, 3.2, 3.3, 3.5, 3.6	Fall/Spring	Reflection	Mean Score	I	ePortfolio	Faculty	Students
APPE Preceptor Evaluation of Students							
Total Mean Score (1-5) Faculty & Adjunct Preceptor	June	Evaluation Rubric	Mean Score (1-5)	D	Evalue Report	Experiential	Students, Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
All Preceptors, Foundational Knowledge (ACPE Std 1)							
All Preceptors, Essentials for Practice and Care (ACPE Std 2)							
All Preceptors, Approach to Practice and Care (ACPE Std 3)							
All Preceptors, Personal/Professional Development (ACPE Std 4)							
Performance on National Exams							
NAPLEX first time pass rate (National Ave)	2nd Trimester (May-Aug)	Standardized Exams	% pass (National)	D	NABP	Senior Associate Dean	Students, Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team Advisory Board NDUS
Average score (National), NAPLEX Competency Area 1 - Ensure Safe and Effective Pharmacotherapy and Health Outcomes (67% of exam)			Ave Score (National)				
Average score (National), NAPLEX Competency Area 2 - Safe and Accurate Preparation, Compounding, Dispensing, and Administration of Medications and Provision of Health care Products (33% of exam)							
MPJE first time pass rate (National Ave)			% pass (Nat)				
Post Graduate Placement							
Student Employment	April-May	Self-Report	% Employed	I	Exit Survey	Associate Dean for SA & FD	Students, Faculty Assessment Committee Curriculum Committee SOP Leadership/Exec. Co Advisory Board
Geographical region							
Practice setting							
PGY-1 Residency Match Rate	May	Post Graduate	% Match (Nat)	D	ASHP	Sr Assoc Dean	
AACP Survey Response							
Student Q36. My advanced pharmacy practice experiences were of high quality.	Mar-May	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Student Q37. My pharmacy practic experiences allowed me to have direct interactions with a diverse patient population.							
Student Q69. I am prepared to enter pharmacy practice.							
Alumni Q10. The curriculum prepared me to enter my first pharmacy job.	May-Aug "Odd" yrs						

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

STUDENT ADMISSION AND PROGRESSION	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Student Admission (ACPE Standard 16)							
Eligible applicants	May	Admission Data	Total #	D	Student Affairs	Associate Dean for Student Affairs Senior Associate Dean	Faculty Admissions Committee Assessment Committee SOP Executive Team
# interviewed / # students admitted			Mean ± SD				
PCAT Composite Percentile - admitted students			% (Natl)		AACP OIRE		
Pre-Pharmacy Core GPA – admitted students		Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	
Men admitted to Pharm.D. program							
Students of diversity admitted to Pharm.D. program							
AACP Graduating Student Survey Q49 -The College is welcoming to students with diverse backgrounds.							
Student Financials (ACPE Standard 14)							
First Professional Year Tuition and Fees - In State	June	AACP SOP Annual Report	Ave \$ (Natl)	D	AACP GSS Public Schools	Senior Associate Dean	Students Faculty Assessment Committee SOP Executive Team
Students requiring financial assistance			% (Natl)				
Student Debt (Natl Public Institutions) at graduation			Median (Natl)				
Amount Pharmacy Scholarships available to all students		Financial Contributions	\$\$	D	Foundation	Development & Budget Mngr	
Amount of scholarships with a diversity empasis							
Student Progression (ACPE Standard 17)							
Students graduating on time (per AACP definition)	June	AACP SOP Annual Reporting	% (Natl)	D	AACP ORIE Profile of Pharmacy Students	Associate Dean for SA & FD	Faculty Admissions Committee Assessment Committee SOP Executive Team NDUS
# (%) Students delayed graduation due to pursuing dual degree							
Students delayed graduation due to academic or professional issues							
Students academic or professional dismissal							
Student withdrawals for reasons other than academic dismissal or delayed graduation							
Students working during school		Self-Report		D	AACP GSS	Sr Assoc Dean	
Professional Development & Engagement (ACPE Standard 4)							
Co-Curriculum - Self-Awareness (ABO 4.1) and Professionalism (ABO 4.4)	Fall/Spring	Reflection	Mean Score	D	ePortfolio	Faculty Advisors	Students
Professional Misconduct reports/violations	May	Tracking Report	Total #	D	Conduct File	AD for SA & FD	Faculty Assessment Committee Curriculum Committee SOP Executive Team
Students participating in Clinical Skills &/or Consultation Competitions			%				
P3 students attending Residency Showcase							
P4 students seeking post graduate residency (PGY-1)		Total #	Report	Muzzy & Skoy			
PharmD students pursuing dual degree (e.g. /PHD, /MBA, /MPH)					ASHP		
Alumni contributions to pharmacy program	June	Financial	\$\$	I	Foundation	Development	Singh & Strand
Overall Satisfaction - AACP Survey Response							
Student (yearly) Q71 - If I were starting my pharmacy program over again, I would choose the same school of pharmacy.	Mar-May	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Faculty Assessment Committee SOP Executive Team
Alumni ("odd" years) Q34 - If I were starting my education over today, I would choose the same college/school of pharmacy.	May-Aug						
Alumni ("odd" years) Q35 - I received a high quality pharmacy education.	"Odd" yrs						

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

FACULTY (ACPE Standards 18, 19)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Gender, ethnicity, and rank	May	PTE	# (%)	D	SBHE	Dept. Chairs	SOP Executive Team
Professional Development							
Faculty participating in at least one pedagogical seminar/year	April	Perform. Evals	# (%)	D/I	Faculty Act. Report	Dept. Chairs	Faculty SOP Leadership Team
Faculty licensed to practice pharmacy in the USA			Total #				
Specialty certifications held by pharmacist faculty							
AACP Faculty Survey Responses							
Q 21 Funds are available to support faculty development.	March - June "odd" yrs	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Faculty SOP Leadership Team SOP Executive Team
Q 25 - The college/school has a sufficient number of staff to effectively address programmatic needs.							
Q 30 - The college/school has a sufficient number of faculty.							

TEACHING (ACPE Standards 10, 25.4)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Teaching Productivity - Professional PharmD Program							
Instructional Faculty FTE's	April	Faculty Workload	Total #	D	Curriculum Co-Curriculum EValue	Chairs	Faculty Curriculum Committee SOP Leadership Team SOP Executive Team
Required didactic credits taught			Ave / Faculty			Sr. Assoc Dean	
Patient Care Laboratory credits taught			Total #			Experiential	
Average # Didactic/Patient Care Lab credits taught per instructional faculty			# advisees/fac			Student Affairs	
APPE Rotations precepted by faculty			Student:Faculty			Sr. Assoc Dean	
Mean Faculty advising ratio (e.g. # student advisees/faculty)							
Student:Instructional Faculty Ratio							
Effective delivery of instruction to students							
% of SROI evaluations with scores on Q #2 (The instructor as a teacher) > university average - 1 SD	June	SROI	%	I	NDSU ORIE	Sr. Assoc Dean	Faculty Curriculum Committee Assessment Committee SOP Leadership Team SOP Executive Team
Student Evaluation of Community IPPE Preceptor		Evaluation Rubric	Mean Score (1-5)	D	EValue Report	Experiential	
Student Evaluation of Institutional IPPE Preceptor							
Student Evaluation of Faculty APPE Preceptor							
Student Evaluation of Adjunct Faculty APPE Preceptor							
AACP Survey Responses							
Student (yearly) Q23 - I developed the skills needed to prepare me for continuous professional development and self-directed life-long learning.	Mar-May	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Student (yearly) Q24 - I was provided opportunities to engage in active learning (e.g.							
Alumni ("odd" years) Q7 - The curriculum provided opportunities to engage in active learning (e.g., laboratories, recitations, student portfolios, problem-based learning).	May-Aug "Odd" Yrs	Standardized Survey	% SA + Agree (National)	I	AACP	Senior Associate Dean	Faculty Assessment Committee Curriculum Committee SOP Leadership Team SOP Executive Team
Alumni ("odd" years) Q8 - I was encouraged to assume responsibility for my own learning.							

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

RESEARCH AND SCHOLARSHIP (ACPE Standards 19.2, 25.4)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Collegial Research Among Disciplines							
College interprofessional research/scholarship projects	March-April	Faculty Annual Performance Evaluation	Total #	D	Faculty Activity Report	Dept Chairs	Faculty SOP Executive Team
University interdisciplinary research/scholarship projects							
External collaborative research/scholarship projects							
Faculty Publications/Presentations/Patents							
Unique Peer-reviewed publications accepted	March-April	Faculty Annual Performance Evaluation	Total #	D	Faculty Activity Report	Dept Chairs	Faculty SOP Executive Team
Peer-reviewed publications/faculty member			Ave #/faculty				
Unique Peer Reviewed Presentations @ professional mtgs			Total #				
National or International invited presentations							
Extramural Research/Scholarship Funded							
NIH grants funded	March-April	Faculty Annual Performance Evaluation	Total #	D	Faculty Activity Report	Dept Chairs	Faculty SOP Executive Team Advisory Board
"Other" Federal grants funded							
Non-Federal grants funded							
Faculty with grants funded			# (%)				
\$\$ amount of NIH grants funded			Total \$\$				
\$\$ amount of "other" Federal grants funded							
\$\$ of Non-Federal grants funded							
Total \$ Amount Extramural Research/Scholarship Awarded			Total #				
Research projects completed							
Intramural Research/Scholarship Funded							
"Other" grants funded	March-April	Performance Evaluation	Total #	D	Faculty Act. Report	Dept Chairs	Faculty SOP Exec Team Advisory Board
\$\$ amount of "other" grants funded			Total \$\$				
Research Ranking							
AACP National Research Ranking (Total \$ NIH) Oct 1 - Sept 30	Oct	AACP Rankings	Total \$ NIH	D	AACP IR	Sr. Assoc Dean	Faculty, SOP Exec Team Advisory Board
AACP National Research Ranking (NIH \$/FTE) [Oct 1 - Sept 30]			NIH \$/FTE				

NDSU SCHOOL OF PHARMACY PHARMD PROGRAM EVALUATION PLAN 2018-2019

SERVICE AND PRACTICE (ACPE Standard 19.3, 25.4)	TIMELINE	METHOD	METRIC	D/I*	SOURCE	RESPONSIBLE	CLOSE THE LOOP
Mentoring pre/professional students in outreach activities							
Faculty hours spent in mentoring activities	April	Perform Evals	Total #	D	Activity Rpt	Dept Chairs	Faculty, SOP Leadership
Service to the Profession							
School of Pharmacy sponsored CPE offerings			Total #				
Participants, School of Pharmacy sponsored CPE offerings							
Faculty serving on professional organization/society committee							
Faculty serving in a leadership role in professional organization/society	April	Faculty Annual Performance Evaluation	# (%)	D	Faculty Activity Report	Dept Chairs	Faculty SOP Leadership Team SOP Executive Team Advisory Board
Invited podium presentations or chairing a professional meeting							
of consultancies			Total #				
Journals served by faculty as reviewers							
Service to the Public							
Undergraduate summer internship programs offered (e.g. Mississippi Valley State University, Northern Arizona University STEM program)							
Community outreach programs/presentations (e.g. Expanding Your Horizons, Science Fair, Big Iron, Public Health Posters, Other presentations)	April	Faculty Annual Performance Evaluation	Total #	D	Faculty Act. Report	Dept Chairs	Faculty SOP Leadership Team SOP Executive Team Advisory Board
NDSU podium presentations							
Service to Patients							
Collaborative Practice Agreements held by faculty							
Patients receiving MTM/direct patient care							
Patients screened @ Big Iron, Homeless, or other outreach	March-April	Faculty Annual Performance Evaluation	Total #	D	Faculty Activity Report	Dept Chairs	Faculty SOP Leadership Team SOP Executive Team Advisory Board
Patients served by NDSU FHC Pharmacy annually							
Prescriptions filled by NDSU FHC Pharmacy annual							

NDSU SCHOOL OF PHARMACY - PHARM.D. PROGRAM EVALUATION REPORT 2018-2019

EDUCATIONAL OUTCOMES (ACPE STANDARDS 1-4, 11, 12, 24.3, 25.6, 25.8)	3-Year Ave.	2016-2017	2017-2018	2018-2019	
Student Achievement, % Students Overall Ave Score on all summative assessments ≥ Benchmark (= 70%)					
ABO 1. Foundational Knowledge	94.7%	95.5%	90%	98.5%	▲
ABO 2. Essentials for Practice and Care	95.7%	93.7%	96.5%	96.9%	+
ABO 3. Approach to Practice and Care	95.5%	93.3%	96.9%	96.3%	+
ABO 4. Personal and Professional Development	95.5%	93.5%	96.1%	97.0%	▲

APPE Readiness	3-Year Ave.	2016-2017	2017-2018	2018-2019	
IPPE Preceptor Evaluation of Students					
Mean score (1-5) Institutional Preceptor Evaluation of Students (IPPE I)	3.86	3.91	3.94	3.73	
Mean score (1-5) Community Preceptor Evaluation of Students (IPPE II)	4.19	4.18	4.2	4.2	
Key Course Performance (Overall % Ave Summative Assessments, Successful Students)					
Phrm 450, Self-Care	86.7%	87.1%	86.6%	86.5%	
Phrm 475, Pharmacy Management	87.1%	86.4%	88.9%	85.9%	
Phrm 500, Top Drugs II	90.1%	±	94.2%	86.0%	
Phrm 520, Special Populations	86.5%	84.2%	88.3%	87.0%	
Phrm 540, Public Health for Pharmacists	86.8%	86.1%	87.2%	87.0%	
Phrm 560, Specialty Care Topics	87.2%	88.8%	84.5%	88.4%	
Phrm 572 Pharmacy Law/Ethics	86.7%	86.5%	87.3%	86.3%	
Phrm 580 Pharmacotherapy Capstone	83.6%	84.9%	82.9%	83.0%	
Phrm 552L Nonsterile + Sterile + Dispensing/Consultation practical exams	90.9%	95.6%	90%	87.2%	
PCOA - P3 year					
Total mean scale score (National)	360 (351)	355 (354)	366 (352)	360 (348)	+
Mean percentile for program	57.30	51	61	60	+
Personal and Professional Development					
Mean composite [#] score (1-5) IPPE Preceptor Evaluation of Students					
Phrm 355 IPPE I - Institutional	4.0	4.1	4.1	3.9	
Phrm 455 IPPE II - Community	4.4	4.3	4.4	4.4	
ABO 4.1 Self-Awareness, Overall Ave. Score, Summative Assessments-Didactic course	89.2%	88.0%	91.0%	88.6%	
ABO 4.4 Professionalism, Overall Ave. Score, Summative Assessments-Didactic course	91.0%	91.2%	89.5%	91.7%	
AACP Survey Response - % Strongly Agree + Agree (National)					
Student Q35. I was academically prepared to enter my APPEs.	98.3 (92.6)%	97.5 (92.9)%	97.4 (92.5)%	100 (92.5)%	+
Alumni ("odd" yrs) Q9. I was academically prepared to enter my APPEs.	96.5 (93.7)%	98 (95.8)%	X	94.9 (91.6)%	

[#] Mean score of a) Student demonstrates preparation, initiative, and accountability with a commitment to excellence, and b) Student demonstrates motivation, attention, and interest during learning and work-related activities.

± New Measure; data not collected this period

▲ Increased compared to prior year &/or 3-Year Average

▼ Decreased compared to prior year &/or 3 Year Average

† Notable

EDUCATIONAL OUTCOMES (ACPE STANDARDS 1-4, 11, 12, 24.3, 25.6, 25.8)	3-Year Ave.	2016-2017	2017-2018	2018-2019	
Interprofessional Team Readiness					
ABO 3.4 IPE Students Overall % Ave Score, summative assessments - didactic courses	94%	±	93.4%	94.5%	▲
CHP 400 Interprofessional Healthcare Practice					
Team-Based Collaborative Care Sim Score, Overall % Ave, Successful Students	95.1%	94.0%	96.1%	95.2%	
APPE Preceptor Evaluation of Students, Mean Score (1-5), ABO 3.4 IPE					
Student establishes a climate of accountability, mutual respect, and shared values with members of the interprofessional team to meet patient and population care needs. (ABO 3.4.1)	4.26	4.21	4.25	4.31	▲
Student incorporates the knowledge, skills, and abilities of each member of the interprofessional team to provide care that is safe, timely, efficient, effective, and equitable. (ABO 3.4.2)	4.13	4.11	4.06	4.22	▲
Student communicates in a manner that values team based decision making and shows respect for contributions from other areas of expertise. (ABO 3.4.3)	4.20	4.18	4.16	4.27	▲
AACP Survey Response - % Strongly Agree + Agree (National)					
Student Q3. The learning experience with other professions students helped me gain a better understanding of how to be part of a multi-disciplinary team to improve patient outcomes.	94.6 (91)%	91.4 (89.8)%	95.2 (90.4)%	97.2 (92.6)%	†
Student Q15. The PharmD Program prepared me to engage as a member of an interprofessional healthcare team.	99.2 (96.1)%	98.8 (95.9)%	98.8 (96)%	100 (96.4)%	
Student Q38. My pharmacy practice experiences allowed me to collaborate with other health care professionals.	100 (98)%	100 (97.9)%	100 (98)%	100 (98.1)%	
Preceptor ("even" yrs) Q30. The PharmD program prepares students to engage as a member of an interprofessional healthcare team.	94.7 (94.5)%	X	95.7 (94.2)%	X	
Alumni ("odd" yrs) Q25. The PharmD program prepared me to engage as a member of an interprofessional healthcare team.	96 (95.1)	93.8 (96.4)%	X	98.3 (93.8)%	

Practice Readiness					
APPE Preceptor Evaluation of Students					
Total Mean Score (1-5), All Rotations by Faculty Preceptor	4.32	4.27	4.34	4.34	†
Total Mean Score (1-5), All Rotations by Adjunct Preceptor	4.07	3.8	4.21	4.21	
Mean Score (1-5) All Preceptors, Foundational Knowledge (ACPE STD 1)	4.08	4.04	4.12	4.09	
Mean Score (1-5) All Preceptors, Essentials for Practice and Care (ACPE STD 2)	3.92	3.47	4.15	4.14	
Mean Score (1-5) All Preceptors, Approach to Practice and Care (ACPE STD 3)	4.00	3.93	3.89	4.17	▲
Mean Score (1-5) All Preceptors, Personal/Professional Development (ACPE STD 4)	4.28	4.28	4.30	4.27	
NAPLEX/MPJE National Exams					
NAPLEX first time pass rate (National Ave)	91.7 (90.8)%	90.9 (90.2)%	90.2 (91.6)%	94.1 (90.6)%	▲
Average score (National), NAPLEX Competency Area 1 - Ensure Safe and Effective Pharmacotherapy and Health Outcomes (67% of exam)	12.7 (12.7)	12.44 (12.56)	12.72 (12.75)	12.84 (12.7)	
Average score (National), NAPLEX Competency Area 2 - Safe and Accurate Preparation, Compounding, Dispensing, and Administration of Medications and Provision of Health care Products (33% of exam)	12.7 (12.7)	12.65 (12.66)	12.60 (12.66)	12.87 (12.68)	
MPJE first time pass rate (National Ave)	91.4 (84.7)%	91.5 (84.9)%	91.5 (85)%	91.1 (84.2)%	
Student Employment/Residency Placement Rate @ Graduation					
% Pharmacy Offer	49.3%	60.5%	46.2%	41.1%	▼
% No Current Offer	26.4%	19.7%	27.1%	32.4%	
% Post-Graduate Residency Offer	23.1%	19.7%	23.2%	26.5%	▲
% (National) PGY-1 Residency Match Rate	75 (65)%	90 (67)%	74 (65)%	60 (64)%	▼
AACP Survey Response - % Strongly Agree + Agree (National)					
Student Q36. My advanced pharmacy practice experiences were of high quality	99.6 (95.1)%	98.8 (95.5)%	100 (95)%	100 (94.8)%	†
Student Q37. My pharmacy practice experiences allowed me to have direct	99.6 (97.9)%	100 (98)%	98.8 (98)%	100 (97.7)%	
Student Q69. I am prepared to enter pharmacy practice.	97.9 (94.7)%	95 (95.5)%	98.8 (94.7)%	100 (93.8)%	
Alumni ("odd" yrs) Q10. The curriculum prepared me to enter my first pharmacy job.	91.7 (88.7)%	93.7 (92.4)%	X	89.8 (85)%	

± New Measure; data not collected this period

▲ Increased compared to prior year &/or 3-Year Average

▼ Decreased compared to prior year &/or 3 Year Average

† Notable

NDSU SCHOOL OF PHARMACY - PHARM.D. PROGRAM EVALUATION REPORT 2018-2019

STUDENT ADMISSION AND PROGRESSION	3-Year Average	2016-2017	2017-2018	2018-2019
Student Admission (ACPE Standard #16)				
# of eligible applicants	93	117	80	83
# interviewed	86	103	80	75
# students admitted	79	84	80	74 ▼
Mean PCAT Composite Percentile (± SD) - admitted students	55.7%	56.1% (19.1)	56.2% (19)	55.3% (23.2)
Mean Pre-Pharmacy Core GPA (± SD) – admitted students	3.69	3.74 (0.2)	3.67 (0.3)	3.67 (0.3)
% (Natl) Men admitted to Pharm.D. program	32 (37)%	35 (38)%	28 (37)%	33 (36)%
% (Natl) Students of diversity admitted to Pharm.D. program	11.2 (15.3)%	9.5 (14.4)%	16 (15.3)%	8 (16.2)%
AACP Graduating Student Survey Q49 - The College is welcoming to students with diverse backgrounds. (% SA + Agree/National)	95.5 (95)%	97.5 (94.5)%	90.4 (94)%	98.5 (96.5)% †
Student Financials (ACPE Standard #14)				
\$ (Ave Natl Public) First Professional Year Tuition and Fees - In State	17.9 (33.1)K	17 (32)K	17.8 (33.2)K	18.9 (34.2)K †
% (Natl) Students requiring financial assistance	85.5 (84)%	84 (84)%	84 (83)%	88.4 (84.8)
Median Student Debt (Natl Public Institutions) at graduation	96.7 (135.7)K	80 (130)K	100 (137)K	100 (140)K †
\$\$ Pharmacy Scholarships available to all students	\$206,567	\$ 202,599	\$191,726	\$225,376
\$\$ Amount of scholarships with a diversity emphasis	\$4,667	\$7,000	\$7,000	\$0
Student Progression (ACPE Standard #17)				
% (Natl) Students graduating on time (per AACP definition)	89.5 (NA)%	93.9 (87.9)%	91.7 (87.9)%	83 (NA)%
# (%) Students delayed graduation due to pursuing dual degree	1.7%	3 (3.5%)	1 (1.2%)	1 (1.2)%
% (Natl) Students delayed graduation (due to academic or professional issues)	9.6 (NA)%	3.6 (6.7)%	8.3 (6.5)%	17 (NA)%
% (Natl) Students academic/professional dismissal	1.6 (NA)%	1.2 (2.7)%	0 (2.6)%	3.7 (NA)%
% (Natl) Student withdrawals (for reasons other than academic dismissal or delayed graduation)	0.8 (NA)%	1.2 (2.7)%	0 (3) %	1.2 (NA)%
AACP Graduating Student Survey - % (Natl) students working during school	97.8 (90.4)%	97.5 (89.3)%	96.4 (91)%	100 (91)% ▲
Less than 10 hours per week	12.4 (32.5)%	12.7 (35)%	10 (32.8)%	14.5 (29.8)%
10 to 14 hours per week	41.1 (31.4)%	32.9 (32)%	42.5 (32.5)%	47.8 (29.8)% ▲
15 to 19 hours per week	25 (18.8)%	32.9 (17.9)%	18.8 (18.8)%	23.2 (19.8)% ▲
20 - 29 hours per week	17 (10.3)%	17.7 (9.3)%	20 (9.9)%	13 (11.6)% ▼
30 hours or more per week	4.2 (4.4)%	2.5 (3.8)%	8.8 (4.1)%	1.4 (5.3)%
No answer	0.4 (2.5)%	1.3 (2.1)%	0 (1.8)%	0 (3.7)%
Professional Development & Engagement (ACPE Standard #4)				
# Professional Misconduct reports filed	26	9	24	44 ▲
# Professional Misconduct violations issued	2	2	4	1
# students participating in Clinical Skills &/or Consultation Competitions	21	21	10	32
% P3 students attending Residency Showcase	54.7%	65%	53%	46%
% P4 students seeking post graduate residency (PGY-1)	33.5%	26.0%	32.5%	42.0% ▲
# PharmD students pursuing dual degree (e.g. /PHD, /MBA, /MPH)	2.0	2	1	3
\$\$ Alumni contributions to pharmacy program	\$508,412	\$ 410,580	\$ 949,467	\$ 165,188 ▼
Overall Satisfaction - AACP Survey Response - % Strongly Agree + Agree (National)				
Student (yearly) Q71 - If I were starting my pharmacy program over again, I would choose the same school of pharmacy.	90.1 (86.3)%	88.9 (86.9)%	90.4 (85.3)%	91 (86.7)% †
Alumni ("odd" years) Q34 - If I were starting my education over today, I would choose the same college/school of pharmacy.	91.1 (88.4)%	95.8 (92.6)%	X	86.5 (84.3)% †
Alumni ("odd" years) Q35 - I received a high quality pharmacy education.	95.8 (93.8)%	100 (97.1)%	X	91.6 (90.6)% †

N/A = data pending

▲ Increased compared to prior year &/or 3-Year Average

▼ Decreased compared to prior year &/or 3 Year Average

† Notable

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FACULTY (ACPE STANDARDS 18,19)	3-Year Average	2016-2017			2017-2018			2018-2019		
		PSci	PPrax	Total	PSci	PPrax	Total	PSci	PPrax	Total
Faculty - Diversity, Rank, Qualification										
# of Faculty	39.0	12	29	41	12	25	37	13	26	39
(%) Faculty of Diversity	29.8%	8	3	26.8%	8	3	29.7%	11	2	33.0%
(%) Female Faculty	47.8%	3	17	48.8%	4	13	45.9%	4	15	48.7%
# (%) FT Faculty in Tenure Track Positions	29.1%	4	8	12 (29.3%)	2	9	11 (29.7%)	3	8	11 (28.2%)
(%) FT Female Faculty in Tenure Track Positions	13.6%	2	4	14.6%	1	4	13.5%	1	4	12.8%
(%) FT Faculty of Diversity in Tenure Track Positions	7.7%	2	1	7.3%	1	1	5.4%	3	1	10.3%
# (%) Tenured Faculty	36.0%	7	6	13 (31.7%)	8	6	14 (37.8%)	8	7	15 (38.5%)
(%) of Tenure Track Female Faculty Tenured	8.6%	2	1	7.3%	2	1	8.1%	2	2	10.3%
(%) of Tenure Track Faculty of Diversity Tenured	7.7%	2	0	4.9%	1	0	2.7%	6	0	15.4%
# (%) FT faculty @ Assistant Professor	39.3%	3	14	17 (41.5%)	4	10	14 (37.8%)	5	10	15 (38.5%)
(%) of Assistant Professor rank held by women	21.2%	1	9	24.4%	1	5	16.2%	2	7	23.1%
(%) of Assistant Professor rank held by faculty of diversity	10.3%	2	2	9.8%	2	2	10.8%	3	1	10.3%
# (%) FT faculty @ Associate Professor	32.5%	4	9	13 (31.7%)	4	8	12 (32.4%)	4	9	13 (33.3%)
(%) of Associate Professor rank held by women	18.8%	1	7	19.5%	1	6	18.9%	1	6	18.0%
(%) of Associate Professor rank held by faculty of diversity	10.3%	2	1	7.3%	3	1	10.8%	4	1	12.8%
# (%) FT Faculty @ Full Professor	23.1%	4	5	9 (22%)	4	5	9 (24.3%)	4	5	9 (23%)
(%) of Full Professor rank held by women	1.8%	0	0	0	1	0	2.7%	1	0	2.6%
(%) of Full Professor rank held by faculty of diversity	6.0%	2	0	4.9%	2	0	5.4%	3	0	7.7%
Professional Development										
# (%) faculty participating in 1 or > pedagogical seminars	65.7%	2	21	23 (60%)	2	23	24 (65%)	5	23	28 (72%)
# (%) Faculty licensed to practice pharmacy in the USA	63.0%	2	25	27 (65.9%)	1	22	23 (62.2%)	2	22	24 (61%)
# Specialty certifications held by pharmacist faculty	18.7		16	16		18	18	0	22	22
AACP Faculty ("odd" years) Survey Responses - % Strongly Agree + Agree										
Q 21. Funds are available to support faculty development	70.6 (75)%	68.5 (73.5)%			X			72.7 (76)%		
Q 25. The college/school has a sufficient number of staff	59.2 (65)%	68.4 (63.1)%			X			50 (66.8)%		
Q 30. The college/school has a sufficient number of faculty	56 (65)%	68.5 (66.4)%			X			43.7 (63.7)%		

* Full time => 50% Appointment

TEACHING (ACPE STANDARDS 10, 25.4)	3-Year Average	2016-2017			2017-2018			2018-2019		
		PSci	PPrax	Total	PSci	PPrax	Total	PSci	PPrax	Total
Teaching productivity: Professional PharmD Program										
Instructional Faculty FTE's	34.3	12	23.3	35.3	12	21.3	33.3	13	21.3	34.3
Total # of required didactic credits taught	90	28	61	89	28	61	89	28	64	92
Total # Patient Care Laboratory credits taught	8	0	8	8	0	8	8	0	8	8
Ave # Didactic & Patient Care Lab credits per instructional faculty	2.7	2.3	3	2.6	2.3	3.2	2.75	2.2	3.2	2.7
# APPE Rotations precepted by faculty	61	0	52	52	6	61	67	1	63	64
Mean Faculty advising ratio (e.g. # student advisees/faculty)	8.5	2	11	8	2.9	11.6	7.25	10.5	10.1	10.3
Student:Instructional Faculty Ratio	9.7 : 1	10:1			10:1			9:1		
Effective delivery of instruction to students.										
% of SROI evaluations with scores on Q #2 (The instructor as a teacher) > university average - 1 SD	97.4%	14/16	61/62	96.1%	18/20	53/53	97.3%	22/23	61/61	98.8%
Mean score- Student Evaluation of Community IPPE Preceptor (1-5)	4.57	4.53			4.56			4.62		
Mean score- Student Evaluation of Institutional IPPE Preceptor (1-5)	4.57	4.54			4.57			4.60		
Mean score- Student Evaluation of Faculty APPE Preceptor (1-5)	4.70	4.62			4.76			4.71		
Mean score- Student Evaluation of Adjunct APPE Preceptor (1-5)	4.49	4.49			4.47			4.52		
AACP Survey Response - % Strongly Agree + Agree (National)										
Student (yearly) Q23 - I developed the skills needed to prepare me for continuous professional development and self-directed life-long learning.	98.3 (97)%	98.8 (97.3)%			97.6 (96.8)%			98.6 (96.8)%		
Student (yearly) Q24 - I was provided opportunities to engage in active learning (e.g. laboratories, recitations, student portfolios, problem-based learning, in-class activities).	100 (97.7)%	100 (97.8)%			100 (97.3)%			100 (98)%		
Alumni ("odd" years) Q7 - The curriculum provided opportunities to engage in active learning (e.g., laboratories, recitations, student	99.1 (95.9)%	100 (98)%			X			98.3 (95.8)%		
Alumni ("odd" years) Q8 - I was encouraged to assume responsibility for my own learning.	100 (97.5)%	100 (98.3)%			X			100 (96.7)%		

- ▲ Increased compared to prior year &/or 3-Year Average
- ▼ Decreased compared to prior year &/or 3 Year Average
- † Notable

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RESEARCH AND SCHOLARSHIP (ACPE STDS. 19.2, 25.4)	3-Year Average	Calendar Year 2016			Calendar Year 2017			Calendar Year 2018			
		PSci	PPrax	Total	PSci	PPrax	Total	PSci	PPrax	Total	
Collegial Research Among Disciplines											
# of college interprofessional research/scholarship projects	24	0	8	8	0	32	32	0	32	32	+
# of university interdisciplinary research/scholarship	20.3	10	4	14	12	20	32	14	1	15	
# of external collaborative research/scholarship projects	25	8	7	15	9	12	21	10	29	39	▲
Faculty Publications/Presentations/Patents											
# unique Peer-reviewed publications accepted	83.7	52	31	83	50	34	84	55	29	84	
Ave # Peer-reviewed publications/faculty member	2.4	4.3	1.2	2.2	4	1.4	2.3	4	1.2	2.6	▲
# unique Peer Reviewed Presentations @ professional mtgs	120.3	62	39	101	56	70	126	60	74	134	▲
# National or International invited presentations	32.7	11	9	20	15	20	35	43	0	43	▲
Extramural Research/Scholarship Funded											
# of NIH grants funded	9.7	8	0	8	9	0	9	12	0	12	▲
# of "other" Federal grants funded	2.0	2	0	2	2	0	2	2	0	2	
# of Non-Federal grants funded	19.7	6	7	13	5	16	21	7	18	25	▲
# (%) faculty with grants funded	49%	11(85%)	6(22%)	42.5%	12(100%)	8(35%)	57%	11	8	48.7%	
\$\$ amount of NIH grants funded	\$5,121,737	4,583,363	0	4,583,363	5,463,551	0	\$5,463,551	5,318,296	0	\$5,318,296	
\$\$ amount of "other" Federal grants funded	\$214,667	500,000	0	500,000	44,000	0	\$44,000	100,000	0	\$100,000	
\$\$ of Non-Federal grants funded	\$885,684	347,851	453,277	801,128	154,000	7,000	\$161,000	780,825	914,100	\$1,694,925	▲
Total \$ Amount Extramural Research/Scholarship Awarded	\$6,388,754	5,431,214	453,277	5,884,491	6,161,551	7,000	\$6,168,551	6,199,121	914,100	\$7,113,221	▲
# of research projects completed	6.0	5		5	3	5	8	1	4	5	
Intramural Research/Scholarship Funded											
# of "other" grants funded	6	1	3	4	5	1	6	6	2	8	▲
\$\$ amount of "other" grants funded	\$199,739	5,000	18,100	23,100	286,351	1,500	\$287,851	272,945	15,320	\$288,265	
Research Ranking											
	3-Yr Ave	Calendar Year 2016			Calendar Year 2017			Calendar Year 2018			
AACP National Research Ranking (Total \$ NIH Oct 1-Sept 30)	35	36			33			35			
AACP National Research Ranking (NIH \$/FTE) [Oct 1-Sept 30]	7	10			7			3			
AACP Faculty Survey Response - % Strongly Agree + Agree (National)											
Q27. The college or school has resources to effectively address research/scholarship needs	51.8 (67.9)%	36.9 (66.7)%			X			66.7 (69.1)%			▲

SERVICE AND PRACTICE (ACPE STANDARDS 19.3, 25.4)	3-Year Average	Calendar Year 2016			Calendar Year 2017			Calendar Year 2018			
		PSci	PPrax	Total	PSci	PPrax	Total	PSci	PPrax	Total	
Mentoring pre/professional students in outreach activities											
# (total) faculty hours spent in mentoring activities	333		200	200		300	300		500	500	▲
Service to the Profession											
# of School of Pharmacy sponsored CPE Offerings	27		26	26		20	20		34	34.0	▲
# of participants in School of Pharmacy sponsored CPE Offerings	200		49	49		300	300		>250	250	
# (%) Faculty serving on professional organization/society committee	92%	19	18	90%	12	25	100%	13	21	87%	
# (%) Faculty serving in a leadership role in professional org/society	56%	3	10	32%	16	16	86%	4	16	51%	
# Invited podium presentations or chairing a professional meeting	47	44	13	57	12	33	45	12	27	39	
# of consultancies	15	2	15	17	1	10	11	2	14	16	
# of journals served by faculty as reviewers	82	55	23	78	50	25	75	60	32	92	▲
Service to the Public											
# Undergraduate summer internship programs offered (e.g. Mississippi Valley State University, Northern Arizona University STEM program)	6	10	0	10	2		2	5	0	5	
# Community outreach programs/presentations (e.g. Expanding Your Horizons, Science Fair, Big Iron, Public Health Posters, Other)	20	2	13	15	2	20	22	2	22	24	▲
Service to Patients											
# Collaborative Practice Agreements held by faculty	4	0	5	5		3	3		3	3	
# patients receiving MTM/direct patient care	1,483			750			700			3000	▲
# patients screened @ Big Iron, Homeless, or other outreach	733			600			700			900	▲
Total # of patients served by NDSU FHC Pharmacy	15,751			14,136			16,768			16,350	
Total # of prescriptions filled by NDSU FHC Pharmacy	80,921			78,253			80,439			84,070	▲

▲ Increased compared to prior year &/or 3-Year Average

▼ Decreased compared to prior year &/or 3 Year Average

† Notable

College Administrative Contingency Plan

The College recognizes the importance and need to provide administrative support for its programs and people. Administrative leaders (Department Chairs, Associate Deans, and Dean) within the College are responsible for providing administrative support for their assigned areas. Administrative leaders are expected to be accessible to their respective constituents to address any issues, opportunities, problems, or concerns in a timely manner. Consistency and continuity of administrative support is important and requires administrative leaders to be accessible during (and occasionally after) University normal business hours of operation to address any issues in their respective areas. Administrative leaders are expected to keep their office calendars (Microsoft Office Outlook) up-to-date and accessible to their direct support staff as well as to the Assistant to the Dean along with providing the Department and College with a mechanism for contacting the administrative leader in a timely fashion when they are out of the office including after hours. Contact information including office phone numbers and email addresses for administrative leaders will be kept up-to-date and accessible electronically to employees on the Department and College webpage and on the College shared drive. An after-hours emergency phone contact list of administrative leaders of the College will be kept up-to-date and accessible to administrative leaders of the College, the Provost, and President for cases involving emergencies and/or times when administrative leaders are out of the office including after hours.

For Department-related matters requiring immediate administrative attention or action, the first line of contact and response should be the Department Chair. If the Department Chair is not immediately available, the Dean of the College should be contacted. For College-related matters requiring immediate administrative attention or action, the first line of contact and response should be the Dean of the College. During times when the Dean is not immediately available, the next line of contact and response should be the Senior Associate Dean (SAD). If the SAD is not immediately available, the next line of contact and response should be the Associate Dean for Student Affairs and Faculty Development (ADSA). If the SAD and ADSA are not immediately available, the Provost should be contacted. If administrative attention or action is needed during times when the Dean is not immediately available, and the matter is determined to be something that cannot wait until the Dean is available, then the appropriate Associate Dean in consultation with the Provost (and in consultation with the appropriate Department Chair and/or Administrative Council when and where appropriate), is empowered to make decisions and take action on matters requiring urgent attention or action. Decisions involving matters of significance impacting the College and its Departments which require immediate attention and action, should be performed in a timely manner by the Department Chair or Associate Dean as described above, after appropriate consultation with the Provost. In the case of an extended absence (i.e., leave of absence, illness, or other), the Provost will work with the College and its Departments to appoint an Interim administrative leader (i.e., Chair, Associate Dean, or Dean) to ensure continued administrative support for the specific area in need.

Approved: 9/13/2011
Source: Faculty Meeting Minutes

Instructional Continuity

1. Individual faculty members shall develop an Instructional Continuity Plan for each face-to-face course they teach.
2. The goal of an Instructional Continuity Plan is to:
 - a. Identify alternative methods of instruction in order to deliver a quality learning experience for students in the event of a disruption of classroom activities for a week or longer; and
 - b. Address medical situations (e.g. illness, hospitalization, contagious disease) which preclude individual students from physically coming to class for a week or longer.
3. The Instructional Continuity Plan shall be communicated orally to students on the first day of class, in writing in the course syllabus, and as an announcement posted on the Blackboard course homepage.
4. The Instructional Continuity Plan for classroom disruption shall contain general guidelines addressing the following components:
 - a. Course Communication - Method of communication between instructor and student as well as expectations for turnaround time on responses. Consider the possibility that internet access or delivery is unavailable. (Examples of alternative methods of communication include email, Blackboard announcements on course homepage, and phone.)
 - b. Course Content – Methods for alternative delivery of content and how you will make course materials available to students. (Examples include electronic copies of lecture materials stored on Blackboard, archived Wimba lectures, audio lecture recordings uploaded to Blackboard, use of Blackboard Discussion Board, and Wimba live.)
 - c. Assignments and Assessments – Modifications in the event a campus closure should coincide with an exam or assignment due date. (Examples include submitting assignments using the Assignment feature in Blackboard or via U.S. Mail, on-line assessments using Blackboard, & extended deadlines.)
 - d. Course Requirements and Grading – Modification in grading in the event of a change in course requirements.
5. The Instructional Continuity Plan addressing medical situations that preclude individual students from attending class shall contain the following general guidelines:
 - a. Student Communication – Expectations for students to notify the instructor within 48 hours of the extended absence to request an alternative course delivery method, state the reason for the absence, and anticipated length of the absence. Students are also expected to communicate with the instructor on a weekly basis during their absence.
 - b. Instructor Assurance – Instructors will provide students with reasonable accommodations to ensure instructional continuity.

EXAMPLE INSTRUCTIONAL CONTINUITY PLANS

Example - Instructional Continuity Plan for Disruption of Classroom Activities:

*"In the event this class is not able to meet face-to-face for an extended period of time (e.g. 1 week or longer) the instructor will **communicate** with the student using Blackboard announcements &/or Blackboard email. In the likelihood the internet is disabled, the instructor will communicate with the student using U.S. Mail. Students may communicate with instructors using Blackboard email or by phone (Office phone # _____). Depending upon the nature of the classroom disruption, please allow 48-72 hours for a response.*

*During the campus closure, **course content** will be delivered using archived Wimba lecture technology. Directions on how to use this technology will be posted on Blackboard. (Students are encouraged to familiarize themselves with these instructions and clarify any questions regarding this technology at the beginning of the semester.) If the internet is disabled, students are expected to use the required textbook identified on the syllabus to supplement their lecture handouts.*

*If the classroom disruption coincides with the time an **assignment** is due or on an **exam** day, alternative arrangements will be made and communicated to the student using Blackboard or U.S. Mail as described above.*

*Lastly, depending upon the nature and length of classroom disruption, **course requirements may be modified and grading adjusted** accordingly. Any modifications in course requirements or grading will be communicated to the student using Blackboard or U.S. Mail as described above.*

For questions regarding this Instructional Continuity Plan, please talk with your instructor as soon as possible."

Example - Instructional Continuity Plan for Individual Medical Reasons:

"In the event a student becomes ill, hospitalized, contracts a contagious disease (flu or other) or has a medical condition which precludes them from physically coming to class for a week or longer, the instructor will provide reasonable accommodations to ensure instructional continuity provided the student: 1) Notifies the instructor within 48 hours of the extended absence to request an alternative course delivery method; 2) identifies the reason for and anticipated length of the absence; and 3) Communicates weekly with the instructor during the absence."

Approved: October 21, 2010

Source: Faculty Meeting Minutes