

Strategic Plan 2022-2027

Department of Pharmaceutical Sciences

VISION

The Department of Pharmaceutical Sciences will be a recognized leader in pharmaceutical sciences by achieving excellence in research, teaching and service through innovation, collaboration and professionalism.

Indicators that we are moving toward our Vision:

- Ranking among the top 20 Pharmaceutical Sciences research and graduate programs in the U.S. based on the number and quality of graduate students and faculty, extramural funding, publications and infrastructure.
- Number and quality of publications in peer-reviewed journals.
- Research, teaching and service awards.
- The number of new collaborative projects advancing our mission.
- Business alliances with biopharmaceutical industries.

MISSION

The mission of the Department of Pharmaceutical Sciences is to educate and train future pharmacists and scientists and to advance pharmaceutical research that improves human health.

We will accomplish this by:

- Improving the quality of teaching and mentoring professional and graduate students.
- Conducting high-quality research in prevention, diagnosis and treatment of diseases and disseminating the results in leading scientific journals and conferences.
- Providing professional service to the College, University, and the scientific community.
- Establishing internal and external partnerships, collaborations and strategic alliances to advance our mission.

CORE VALUES

The Department of Pharmaceutical Sciences is committed to shared governance, transparency and professionalism. The strategic plan is based on the following core values:

- Excellence
- Innovation
- Creativity
- Integrity
- Collegiality
- Inclusivity
- Resilience
- Impact

Diversity, Inclusivity, and Respect:

GOAL: Create and maintain an open and collegial environment to promote inclusivity and diversity as a cornerstone of education, research, and outreach.

Strategy	Action steps	Metric	Responsibility
<p>Sub-Goal A. Continuously improve the Departmental climate for students, faculty, staff and all stakeholders with additional consideration of underrepresented groups.</p>	<ol style="list-style-type: none"> 1. Continue to encourage applications from underrepresented groups (including women and minority) when advertising faculty, staff and post-doctoral positions. 2. Improve the department website by emphasizing diversity and inclusivity among the current faculty, staff, and students to provide a welcoming environment for underrepresented groups. 3. Promote grant and funding applications that aim to hire and train more postdoctoral fellows and students from underrepresented groups. 	<ul style="list-style-type: none"> • Number of applications to Department programs from students, faculty, staff and all stakeholders of underrepresented groups. • Number of outreach activities and multicultural events, organized by the Department, that emphasize inclusivity and diversity • Number of grant proposals submitted by Faculty that enhance the number of postdoctoral fellows and students from underrepresented groups. 	<ul style="list-style-type: none"> • Dean • Chair • Faculty
<p>Sub-Goal B. Strengthen and secure an accessible and equitable department for our diverse body of students, faculty, staff and all stakeholders.</p>	<ol style="list-style-type: none"> 1. Ensure that students, faculty, staff and all stakeholders of underrepresented group are included in all the activities organized. 	<ul style="list-style-type: none"> • Collect and publicize aggregate diversity metrics. • Conduct survey among students, staff and faculty to improve the departmental diversity and equity efforts. 	<ul style="list-style-type: none"> • Chair • Faculty
<p>Sub-Goal C. Implement a proactive approach to professionalism, ethics, and commitment to inclusivity for students, faculty, and staff.</p>	<ol style="list-style-type: none"> 1. Develop and implement a means to assess student professionalism, ethical behavior, and commitment to inclusivity 2. Provide faculty and staff development 3. Provide opportunities to gain an understanding of diverse populations 	<ul style="list-style-type: none"> • Student professionalism, ethical behavior, and commitment to inclusivity assessment plan created and implemented • Report aggregate professional misconduct issues to faculty annually 	<ul style="list-style-type: none"> • Chair • Faculty

Student Success and Achievement

GOAL: Provide transformational experiences for students from diverse backgrounds through high-quality education and opportunities for personal and professional development.

Strategy	Action Steps	Metric	Responsibility
Sub-Goal A. Curricula delivered utilizing teaching and learning methods that actively engage learners, fosters interdisciplinary interactions, promotes student responsibility for learning, and facilitates achievement of program learning outcomes.	<ol style="list-style-type: none"> Promote, enhance, and expand innovative teaching approaches within the department including use of contemporary teaching technology, simulations, and interprofessional and interdisciplinary education coordinated by instructional design professional Facilitate opportunities for experiential learning. 	<ul style="list-style-type: none"> Ensure all faculty utilize college instructional design professional Increase the number of pedagogy workshops/seminars available to the faculty 	<ul style="list-style-type: none"> Chair Faculty Instructional Designer
Sub-Goal B. Students are able to successfully complete the requirements for a degree in a reasonable amount of time.	<ol style="list-style-type: none"> Identify barriers to student's progression in the program Interact with students daily to strengthen skills, build knowledge, and develop mentoring relationships during their graduate curriculum Help student to identify resources available to them 	<ul style="list-style-type: none"> Annual graduation rates Annual time to completion of degree especially for graduate programs 	<ul style="list-style-type: none"> Chair Faculty
Sub-Goal C. Expand recruitment activities locally, regionally, nationally, and internationally.	<ol style="list-style-type: none"> Improve the department website Create a recruitment plan Utilize videos, PPT presentations, YouTube, and social media to reach students. 	<ul style="list-style-type: none"> Increase number of applications to department programs Increase number of new outreach deliverables per 	<ul style="list-style-type: none"> Chair Faculty
Sub-Goal D. Attract and retain high quality applicants and students.	<ol style="list-style-type: none"> Provide health insurance and competitive stipends to graduate students. Increase the quantity and size of stipends offered to graduate students. 	<ul style="list-style-type: none"> Increase the number and dollar amount of scholarships offered by department. All graduate students receive health insurance. All graduate students 	<ul style="list-style-type: none"> Dean Chair Faculty

Research and Creative Activities

GOAL: Advance NDSU's stature as a nationally and internationally recognized research university, engage in transformative research and creative activity, and increase the quality and quantity of scholarly activities to generate new insights and knowledge that will benefit the state and address central challenges of our global future.

Strategy	Action Steps	Metric	Responsibility
Sub-Goal A. Increase the commitment of financial resources to support sustainable research growth with public impact	<ol style="list-style-type: none"> 1. Increase operating budgets for the Department 2. Establish fund-raising priorities for the Department 3. Increase state matching dollars directed to the department 4. Increase extramural federal and non-federal grant funding for the Department 5. Work with the development to establish a corporate fundraising strategy. 6. Seek multiple sources to support faculty start-ups (~\$500,000) including University, EPSCoR, Dean's Office, Department, and F&A funds 7. Establish a second COBRE Center within the Department 	<ul style="list-style-type: none"> • Research rankings (NIH, AACP, etc.) • Total \$ research funding • Research funding \$ by FTE • Peer reviewed publication rate (publication by FTE) • Grant application success rate • Every faculty member is expected to have NIH RO1 grant within five years 	<ul style="list-style-type: none"> • Dean • Chair • Faculty
Sub-Goal C. Integrate and strengthen centralized administrative and academic support for research and creative activity.	<ol style="list-style-type: none"> 1. Ensure sufficient resources to support faculty development and sabbaticals 2. Help College evaluate the feasibility of establishing a Associate Dean of Research position 3. Provide support for faculty including adequate research laboratories, supplies, equipment, post-doctoral fellows, research associates, graduate students, visiting scientists/scholars, and mechanisms for bridge funding, etc. 4. Ensure appropriately trained staff are provided to assist the PI in monitoring and managing grant budgets to ensure compliance with Department, School, College, and University policies and procedures related to processing grant funds 5. Establish program Project P01 grant from NIH 	<ul style="list-style-type: none"> • Research productivity by FTE 	<ul style="list-style-type: none"> • Chair • Faculty

<p>Sub-Goal D. Create an administrative framework to encourage and support multidisciplinary research teams.</p>	<ol style="list-style-type: none"> 1. Work with dean for securing funding for three tenure-track faculty positions (e.g., Nanomedicine, microbiome, immunotherapy), two technicians, three laboratory spaces in Sudro Hall. 2. Provide faculty mentoring and development opportunities to enhance faculty abilities and skills to become competitive, productive researchers/scholars 3. Complete the renovation of Small Animal Facility in Sudro Hall 4. Align graduate programs to support interdisciplinary research 5. Identify college and university-wide individual's expertise for major disease states/population/theoretical models 	<ul style="list-style-type: none"> • # of college interdisciplinary research/scholarship projects • # of university interdisciplinary research/scholarship projects • # of interdisciplinary/interprofessional groups 	<ul style="list-style-type: none"> • Chair • Faculty
<p>Sub-Goal E. Prioritize highly effective mission-relevant research programs through strategic and systematic resource reallocation.</p>	<ol style="list-style-type: none"> 1. Increase endowed professorships, & fellowships within the Department. 2. Increase annual equipment budget for the Department 3. Increase budget for facilities' upgrades and renovations, complete the expansion of the animal facility 4. Ensure sufficient resources to support competitive faculty salaries and start-up packages 5. Recruit additional four research assistant Professors 	<ul style="list-style-type: none"> • # of faculty serving on grant review committee/panel • # new corporate partnerships established • # of faculty serving on corporate advisory boards 	<ul style="list-style-type: none"> • Chair • Faculty
<p>Sub-Goal F. Support and ensure high quality research education for postdoctoral fellows, graduate, and undergraduate students</p>	<ol style="list-style-type: none"> 1. Recruit high quality post-doctoral fellows and increase their numbers to 20 in the Department 2. Ensure sufficient space to accommodate expansion of pharmaceutical sciences research and graduate program in existing facility 3. Utilize videos, PPT presentations, You-Tube, and Social Media to reach students 4. Increase the quantity and size of stipends offered to graduate students 5. Increase PhD student enrollment in Pharmaceutical Sciences from 30 to 40 students 6. Promote dual degree enrollments for the PharmD/PhD. 7. Establish T32 training grant in the Department 	<ul style="list-style-type: none"> • # of post-doctoral fellows in the Department • PhD Program review • # of gender/diversity member review • # of dual degree students • T32 award 	<ul style="list-style-type: none"> • Chair • Faculty

Education, Extension, and Outreach

GOAL: Provide innovative, student-centered education and conduct transformative research that impacts the state through meaningful outreach.

Strategy	Action Step	Metric	Responsibility
Sub-Goal A. Broaden partnerships with citizens, communities, and businesses to address the educational, cultural, and technical needs of North Dakota and the region.	<ol style="list-style-type: none"> 1. Conduct a baseline assessment of our current communication activities 2. Establish communication goals and priorities for the Department for use by the College Communication Specialist 3. Report annually on progress towards achieving strategic plan goals 4. Improve communication among faculty, staff, students, and administration related to Department affairs 5. Enhance relationships, interactions, and engagement with the business community, health care affiliates, industry, and corporate partners related to education, research, service, and development opportunities. 	<ul style="list-style-type: none"> • Baseline assessment completed • Communication plan created • Department communication goals and priorities established • Internal College communication format created • # new relationships developed 	<ul style="list-style-type: none"> • Chair • Faculty • Communication Specialist
Sub-Goal B. Establish a plan to enhance the competitiveness of graduates from the Department's academic degree programs in job market within the state, region, and nation.	<ol style="list-style-type: none"> 1. Develop a marketing plan and strategies for all Department academic programs 	<ul style="list-style-type: none"> • Marketing plan and strategies completed 	<ul style="list-style-type: none"> • Chair • Faculty • Communication Specialist
Sub-Goal C. Increase educational achievement and improvement through ongoing assessment of student learning outcomes	<ol style="list-style-type: none"> 1. Conduct assessment of student learning outcomes 2. Report annually on progress towards achieving strategic plan goals 	<ul style="list-style-type: none"> • Assessment completed • Report completed 	<ul style="list-style-type: none"> • Chair • Faculty

Sub-Goal D. Increase the use of innovative instructional methods and delivery options for career-ready students.	1. Establish cutting-edge technology and digital tools to meet the needs for education, research, and outreach.	<ul style="list-style-type: none"> • Number of cutting-edge technology and digital tools established 	<ul style="list-style-type: none"> • Chair • Faculty
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PSCI Resource Planning and Development

GOAL: Support and enhance innovation and excellence through strategic investments in sustainable infrastructure.

Strategy	Action Steps	Metric	Responsibility
Sub-Goal A. Prioritize resources for departmental effectiveness based on strategic plan initiative.	1. Ensure sufficient space to accommodate expansion of pharmaceutical sciences research and graduate program.	<ul style="list-style-type: none"> • % Change ((Budget this year - last year budget)/budget last year) 	<ul style="list-style-type: none"> • Dean • Chair
Sub-Goal B. Provide support and incentives for Faculty Members to innovate and be entrepreneurial.	<ol style="list-style-type: none"> 1. Increase travel and professional development budgets for faculty, staff, and students 2. Establish corporate partnerships to generate industry-based funding sources and facilitate technology transfer 	<ul style="list-style-type: none"> • % Change ((Budget this year - last year budget)/budget last year) 	<ul style="list-style-type: none"> • Dean • Chair
Sub-Goal C. Develop and implement a department wide strategy for the technology, data, and information use that improves student education and experiences, enhances research capabilities and supports organizational (i.e. departmental) decision-making	<ol style="list-style-type: none"> 1. Build/strengthen relationships with federal agencies/ philanthropy agencies that fund health-related research 2. Develop an interdisciplinary/multi-disciplinary research plan for the Department 	<ul style="list-style-type: none"> • # of faculty serving on grant review committee/panel • # of faculty serving on corporate / agency advisory boards • # of interdisciplinary / multidisciplinary research programs created 	<ul style="list-style-type: none"> • Dean • Chair