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### NDSU initiates major energy-reduction project

NDSU is set to begin a major energy-reduction project that will produce significant utility savings and address both efficiency and deferred maintenance.

The overall project is anticipated to cost just under \$11 million and will affect 63 buildings. The resulting utility savings will be substantial, allowing the project to pay for itself during the next 15 years, according to Michael Ellingson, director of NDSU facility management.

"Energy savings and sustainability are at the forefront of our nation and the opportunity is perfect to proceed with this project now," said Ellingson, noting the project is expected to begin later this month.

NDSU's contractor for the project, Energy Service Group, a division of Honeywell, guarantees the savings. According to Ellingson, if the total energy and operational savings do not at least equal the project costs, Energy Service Group will pay NDSU the difference.

"It's phenomenal to do a project of this size and be able to pay for it through energy savings," said Bruce Bollinger, vice president for finance and administration. "It's a wonderful opportunity for NDSU and a proactive way to meet deferred maintenance needs."

NDSU also received American Recovery and Reinvestment grants in the amount of \$2.868 million, part of which will help with the costs.

Work on the project is anticipated to last 18 months, ending in December 2012.

Projects will address a variety of interior and exterior areas. Fifty-six buildings will receive plumbing fixture improvements. Sixty-three buildings will have air leakage issues addressed, relating to doors, windows and roof/wall intersections. And 13 buildings will receive extensive facility improvements, such as improved temperature controls, improved lighting and controls, better heating, rebalanced air handling systems and improved motor efficiency.

The projects were identified during an in-depth energy audit conducted by Energy Service Group between August 2009 and January

2011. The company looked for potential infrastructure improvements that would eliminate energy inefficiencies and ongoing maintenance costs.

A construction schedule has not been determined, but will take into account class schedules, summer activities and other events on campus. Ellingson said facilities management plans to keep faculty and staff informed by posting a schedule on their website at <a href="https://www.ndsu.edu/facilities/maint">www.ndsu.edu/facilities/maint</a> const/index.html.

In addition to lowering costs, Ellingson explained that NDSU's reduced energy consumption will lead to significantly less greenhouse gas emissions. He said carbon dioxide will be reduced by 6,484.5 tons, methane by 1.5 tons and nitrous oxide by nearly a ton.

Buildings that will receive work are listed below.

#### 56 buildings with plumbing efficiency improvements:

Administration (Old Main), Ag and Biosystems Engineering, Architecture and Landscape Architecture, Askanase Hall, Bentson/ Bunker Fieldhouse, Bison Court East and West, Burgum Hall, C.I. Nelson Building, Ceres Hall, Churchill Hall, Civil Industrial Engineering, Dinan Hall, Dolve Hall, E. Morrow Lebedeff Hall, Ehly Hall, Electrical and Computer Engineering, Engineering and Technology, Engineering Center, Harris Hall, Hastings Hall, Heating Plant, Hultz Hall, IACC, Johnson Hall, Katherine Kilbourne Burgum Family Life Center, Ladd Hall, Library, Living Learning Center East and West, Loftsgard Hall, Lord-Burnham Greenhouses, Memorial Union, Minard Hall, Morrill Hall, Music Education Building, Northern Crops Institute, Pavek Hall, Putnam Hall, Reed Hall, Residence Dining Center, Residence Life Facility Services, Robinson Hall, Seim Hall, Sevrinson Hall, Shepperd Arena, South Engineering, Stevens Hall and Auditorium, Stockbridge Hall, Sudro Hall, Thompson Hall, Van Es Hall, Waldron Laboratory, Wallman Wellness Center, Walster Hall, Weible Hall North and South, West Dining Center and Wiidakas Lab.

Continued...

### NDSU www.ndsu.edu/ihas

#### News and events

As information becomes available, news and event updates will be located on the "News and Events" website at www.ndsu.edu/news.

#### Deadline set for June 30 It's Happening at State

The next electronic issue of It's Happening at State will be posted June 30 at www.ndsu.edu/ihas. Submissions for that issue are due June 27.

#### Red River Vally Fair tickets available

The NDSU Human Resources/ Payroll Office has tickets for the Red River Valley Fair available to sell to NDSU employees through July 13.

#### Blood drive scheduled

The Office of Human Resources/ Payroll is sponsoring a United Services blood drive on June 16 from 1 p.m. to 4:30 p.m. located on the west side of the Memorial Union. The drive is open to all faculty, staff and students.

#### 64 buildings with envelope air leakage improvements:

Administration (Old Main), Ag and Biosystems Engineering, Animal Nutrition and Physiology Center, Architecture and Landscape Architecture, Askanase Hall, Auxiliary Enterprises, Bentson/Bunker Fieldhouse, Bison Court E, Bison Sports Arena, Burgum Hall, Ceres Hall, Churchill Hall, C.I. Nelson Building, Civil Industrial Engineering, Construction Management, Criminal Justice and Public Policy, Dacotah Field, Dinan Hall, Dolve Hall, E. Morrow Lebedeff Hall, Ehly Hall, Electrical and Computer Engineering, Engineering and Technology, Engineering Center, Graduate Center, Harris Hall, Hastings Hall, Heating Plant, Hultz Hall, IACC, Johnson Hall, Ladd Hall, Loftsgard Hall, Lord-Burnham Greenhouses, Katherine Kilbourne Burgum Family Life Center, Memorial Union, Morrill Hall, Music Education Building, North Weible Hall, Northern Crops Institute, Pavek Hall, Potato Research, Putnum Hall, Reed Hall, Robinson Hall, Residence Dining Center, Residence Life Facility Services, Seim Hall, Service Center Pilot Plant, Sevrinson Hall, Shepperd Arena, South Engineering, South Weible Hall, Stevens Hall and Auditorium, Stockbridge Hall, Sudro Hall, Sugar Beet Research, Thompson Hall, Thorson Maintenance Center, Van Es Hall, Waldron Hall, Walster Hall, West Dining Center and

#### 13 buildings with extensive facility improvements:

Ag and Biosystems Engineering, E. Morrow Lebedeff Hall, Hultz Hall, IACC, Katherine Kilbourne Burgum Family Life Center, Ladd Hall, Loftsgard Hall, Lord-Burnham Greenhouses, Morrill Hall, Stevens Hall and Auditorium, Van Es Hall, Waldron Laboratory and Walster Hall.

## Strategic Planning Committee completes draft report

The NDSU Strategic Planning Committee has presented its draft report to President Dean L. Breciani. The document, which is the work of a group representing university faculty, staff and administrators, is available for review and comment **here**.

The group's goal was to provide criteria to identify academic and research programs that are at or near nationally, if not internationally, recognized status.

The draft report said the committee envisions NDSU as a "comprehensive and diverse institution with the characteristics of a top-20 research university that impacts the region, nation and world."

The document contains three sections: Human Capital, Opportunity and Outcomes. It notes "the ability to attract and retain high-quality students and faculty, to give those individuals the tools they need to realize their potential, and to demonstrate the impact of the program in the region, nation or world defines an excellent program."

The committee said a university plan for infrastructure improvement and maintenance is a "fundamental step in achieving and sustaining excellence." The members recommended the establishment of an independent development foundation dedicated to academics and research and suggested bolstering of the existing Honors Program. The report also noted the importance of international experiences.

The committee included 20 members from across campus and six ex-officio members who served in an advisory capacity. Marie Hvidsten, rural leadership specialist and Rural Leadership North Dakota program director with the NDSU Extension Service, was the committee's facilitator.

"It was exciting to be part of the strategic planning process the past four months. I greatly appreciated the commitment from committee members to create an inclusive, future focused plan for academics and research programs at NDSU," Hvidsten said. "We had an excellent mix of committee members; they shared ideas and asked great questions during our sessions as they made decisions about what needed to be in the plan. It will be exciting to see the ripple effects of their work on NDSU programs."

Campus community members can provide input on the draft by emailing **NDSU.strategic.plan@ndsu.edu** by the end of June. Comments collected from campus will be forwarded to deans to solicit proposals for programs that fit the criteria.

## Bresciani, NDSU alumnus to speak at national security event



Bresciani

NDSU President Dean L. Bresciani is scheduled to give opening remarks at a U.S. Global Leadership Coalition event called "A Conversation on National and Economic Security" on June 30 at the NDSU Alumni Center.

NDSU alumnus, retired Gen. Charles "Chuck" Wald, BA '71, honorary doctorate '04, also is scheduled to speak. Wald retired in 2006 as a

deputy commander of the U.S. European Command Headquarters in Stuttgart, Germany. He was responsible for all U.S. forces operating across 91 countries in Europe, Africa, Russia, parts of Asia and the Middle East and most of the Atlantic Ocean.

Wald is co-chair of Veterans for Smart Power, an organization launched by the coalition that enlists veterans who support the idea that key elements to national security are development and diplomacy, alongside defense.

Other speakers include retired Maj. Gen. Michael Haugen, who is a member of North Dakota's State Board of Higher Education; and Dean Gorder, executive director of the North Dakota Trade Office.

There is no charge to attend the event, which starts at 8 a.m., but an RSVP is required. Register **here**.

For more information, visit **www.usglc.org** or contact Matt Michaelree at **mmichaelree@usglc.org**.

# Education-industry mentorship program achieves success



Left to right, (front row) Jill Hough, Elvis Ndembe, Mridula Sarker, (back row) Bob Prince, Linda Bohlinger, Dilip Mistry and David Lee

Jill Hough, director of the Small Urban and Rural Transit Center at NDSU, launched a successful mentorship program with students from her public transportation class during spring semester. Students were paired with an industry leader for eight weeks to discuss topics and learn from the mentors' experiences in the transportation industry during a structured weekly phone visit.

Mentors view the program as extremely valuable, offering students insight that comes from experience rather than a textbook. The mentorship program also opens a gateway for the industry to communicate with educators about the best practices for preparing students to become leaders in the industry.

"We need to have this dialogue so that classes are being crafted around real-time transportation challenges," said Robert Prince, vice president of AECOM, a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government.

David Lee, general manager of Connecticut Transit, believes mentorship programs are critical to the development of students seeking careers in the industry. Many opportunities from partnerships between education and industry, he said, have not been fully realized.

Students also note the value of the mentorship opportunity, saying the knowledge transit leaders provided gave insight into policies, management and other challenges leaders face. Hearing the perspective of professionals who have first-hand knowledge of the industry also helped students see what they are learning put into practice in real-life situations.

Transportation and logistics doctoral student Dilip Mistry said the mentorship program helps students see how partnerships between industry and education are beneficial, paving the way for students to become mentors one day and sustaining such programs. Hough plans to incorporate the mentorship program into the class again after seeing its success. Groundwork also is being laid to replicate the program at other universities, such as Rutgers University. Leaders developing the National Transportation Curriculum also plan to incorporate a similar program.

Educators and industry leaders alike say creating a partnership between higher education and the transportation industry is vital to the continued success of the industry. While students can learn much from their mentors, Hough stresses, "Students can share innovative and creative ideas with the industry and help move the industry forward."

The necessity of university-industry partnerships was addressed at the 2011 American Public Transportation Association's Bus and Paratransit Conference. Hough moderated a panel of transit professionals as they discussed educating the transportation workforce. The session also included roundtable discussions led by the mentors and other professionals on topics in transportation education.

"There was tremendous dialogue about moving the University-Transit Industry relationships forward [at the conference]," Hough said. "When we work together we create win-win opportunities."

## 'Palaces on the Prairie' included on 2011 notable documents list

A book published by the North Dakota Institute for Regional Studies, "Palaces on the Prairie," was recognized recently as an outstanding government publication. It is one of 37 documents included in the 2011 Notable Documents List produced by the American Library Association Government Documents Round Table.

The book by Rod Evans, reveals the struggles of Midwestern communities to survive the crises of the late 19th and early 20th centuries. Evans focuses on one of the ways community leaders elevated themselves: constructing palaces decorated with grains or minerals that would best promote the businesses and products in their towns.

The list includes 13 federal, 11 state and local and 13 international documents. Subject matter of the documents ranges from plant life, climate change and the environment to crime, human rights and economic development to city planning, construction, geospatial data and engineering. Two documents were selected from North Dakota.

Every year the list of notable documents is published in the May 15 issue of the Library Journal. The title of this year's list is "Digital Diamonds & Budget Cuts." The article is available **here**.

To learn more about the American Library Association Government Documents Round Table, go to **www.ala.org/ala/mgrps/rts/godort/index.cfm**.

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## NDSU programs touted as success at education policy seminar



Upward Bound and Veterans Upward Bound students work together on a 2010 Stem Program project.

NDSU's Upward Bound and Veterans Upward Bound STEM program was cited as an example of success by the keynote speaker at the 31st annual policy seminar for the Council of Opportunity in Education in Washington, D.C., in March.

The speaker, Eduardo M. Ochoa, assistant secretary of post-secondary education, noted that the Department of Education was aware of the effectiveness of TRIO programs, and the hard work that is done on behalf of the nation's low-income and first-generation students. He then described NDSU as an example of a TRIO success story.

"At North Dakota State University, Upward Bound and Veterans Upward Bound programs have collaborated to form a Summer STEM Program, providing rich science, technology, engineering and math experiences for all participants," Ochoa said. "The project directors of those programs noted that the collaboration could not take place without the lab space and equipment that was provided by the NDSU faculty in the biology and chemistry departments and the overwhelming support received from others on campus. It is a story of various parts of the community coming together for the success of students in need."

Ochoa also mentioned successful programs at other universities. The University of South Carolina Upward Bound Summer Program provides graduating seniors an opportunity to take college credit research methodology courses. Seniors also can participate in a work study program to expose them to various career fields.

At Wichita State University, after school homework assistance is available through Talent Search, Upward Bound and GEAR UP programs. In addition, parents are encouraged to contribute to their students' success by having their own access to computers, the program's resource library and career information.

In addition, Daniel Hernandez, a graduate of Pima Community College's Upward Bound project, was praised for his actions at the scene of the shooting of Rep. Gabrielle Giffords in Arizona. Hernandez also was applauded by President Obama and was invited to watch the State of the Union address in the House gallery, seated next to the First Lady, Michelle Obama.

# Governor's School challenges top high school students

It's officially summer, but school's not out for some of the brightest young minds in North Dakota. Sixty-six of the most academically driven high school sophomores and juniors are extending their education for six weeks while attending N.D. Governor's School at NDSU.

From June 5 to July 16, students live at NDSU to intensely study laboratory science, mathematics, information technology, English studies and visual arts. They work with more than 40 NDSU faculty who engage them in discussion groups, labs and field trips. Students complete reading, journaling, research and group project assignments.

The work is intended to push students. "Governor's School academics is at the freshman or sophomore level in college," said Lonnie Hass, director of Governor's School and a senior lecturer in NDSU's mathematics department. "It's a giant leap for students."

In many ways, the experience goes beyond academics.

In the morning students attend life and leadership classes provided by 4-H, tackling topics that will affect them personally and professionally throughout their lives.

They also get a taste of college life. They live in residence halls, eat in the dining center and navigate their way around campus, all experiences that will ease the transition later.

New friends and fun also are keys to the experience. On weekends, students enjoy off-campus activities like roller skating, mini golf and go-carts. They also travel to Minneapolis to tour 3M and visit the Science Museum, Valley Fair and Art Institute. Other weekend activities include a canoe trip and service projects.

All North Dakota high school students who have completed their sophomore and junior years can apply for Governor's School. Students who excel in science or math are especially encouraged to apply. Selection is based on an application, teacher recommendations, standardized tests, writing ability and class rank in high school.

Around 70 students typically attend Governor's School, but 100 spots are available. "It is a hard sell to get them away (from home) for six weeks," Hass said. "But at the end, some do not want to go home."

The state of North Dakota pays for North Dakota students who are accepted. If spaces are available, out-of-state students may apply to the program, but are required to pay tuition.

Visit **www.ndsu.edu/govschool** or contact Lonnie Hass at **Lonnie.hass@ndsu.edu** or (701) 231-6727 for more information on Governor's School.

### Northern Crops Institute advises Colombian pork producers

Representatives of the Colombian Association of Pork Producers recently came to the Northern Crops Institute to update their knowledge of feed ingredients, ration formulation, feed mill equipment and plant design.

Thirteen members of the Colombian Association of Pork Producers attended a four-day feed manufacturing program May 31-June 3 at Northern Crops Institute. The participants represented some of the largest feed mill companies and swine operations in Colombia.

The North Dakota Corn Utilization Council, Minnesota Corn Research and Promotion Council, and the U.S. Grains Council sponsored the seminar.

"Members of the pork association wanted a program that would bring their people up to speed with the feed industry in order to deal with opportunities that may arise through new trade agreements. Although the United States and Colombia are still negotiating a free trade agreement, many changes have already occurred in the marketplace, resulting in consolidations and increased competition," said John Crabtree, institute interim director.

Kim Koch, the institute's feed center manager, coordinated and lectured during the program. Other speakers included Gerry Leukam, T.E. Ibberson Co.; Roberto Cespedes, Buhler Inc.; Robert Thaler, South Dakota State University; Joe Hancock, Kansas State University; David Newman, NDSU; and Matt Frederking, RalCo Nutrition. David Fairfield, National Grain and Feed Association, could not attend but shared information.

Lecture topics included feed mill design, equipment, personnel, feed manufacturing processes, swine nutrition, distillers dried grains with solubles and grain sorghum in feed, meat quality and feed safety. The group participated in feed manufacturing demonstrations at Northern Crop Institute's feed mill and toured the Tharaldson Ethanol Facility in Casselton, N.D., hosted by Ryan Thorpe.

### Non-discrimination policy updated

NDSU's non-discrimination policy, policy 100, has changed to add gender expression and genetic information.

The updated non-discrimination policy is as follows:

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation or status as a U.S. veteran. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708.

The notice must be included in all departmental publications such as bulletins, announcements, manuals, publications, guidebooks, brochures, pamphlets, catalogs, application forms or recruitment materials describing or inviting participation in programs at NDSU. It is not required on departmental homepages. The policy also is available at <a href="https://www.ndsu.edu/policy/100.htm">www.ndsu.edu/diversity/equity/non\_discrimination\_statement</a>.

# NDSU hosts conference on environmental issues

The NDSU American Water Works Association and Water Environment Federation Student Chapter hosted the 2011 International Student Prairie Conference Environmental Issues June 2-4 at the Memorial Union.

The conference provided a platform for students and young professionals in the environmental field to share research ideas and interact with established professionals in the industry. The conference showcased more than 30 presentations in two days on topics related to water and wastewater treatment, water quality and water resources. Students also visited the City of Fargo Wastewater Treatment Plant Effluent Reuse Facility and the Groundwater Storage Pumping Station.

The conference has hosted more than 80 people every year since 2007. Attendees include students and professors from NDSU, University of North Dakota, South Dakota State University and University of Manitoba, Canada, as well as environmental professionals from the Dakotas and Canada.

For more information, contact Dhritikshama Roy at **Dhritikshama.Roy@ndsu.edu** or (985) 634-5029.

## Information Technology Division hires two staff members



Pfeifer

NDSU's Information Technology Division has hired two new staff members: Jayme Pfeifer as a telecommunications analyst in the telecommunications and emergency support technologies department and Kelly Summers as a network infrastructure technician in the enterprise computing and infrastructure department.



Summers

Pfeifer previously worked as a production manager for Snyder Films in Fargo starting in 1985, and remained with that organization after it was acquired by Media Productions. Originally from Oakes, N.D., Pfeifer earned a bachelor's degree in computer science from NDSU.

Summers has worked as a drafting technician and supported desktop systems and equipment for NDSU's Facilities Management since 2008. Prior

to joining NDSU, he provided project support at Imaging Solutions. He coordinated security compliance, systems support and construction and property services.

A native of Park River, N.D., Summers earned an associate of applied science degree in electrical technology, architectural drafting and estimating technology, and construction technology from North Dakota State College of Science.

### Safe Zone Ally training scheduled

Multiple Safe Zone Ally training sessions have been scheduled for this summer. RSVPs are not required to attend.

The first "Level 1: Becoming a Safe Zone Ally" session was held June 13 and the next session is scheduled for Tuesday, July 19, from 10 a.m. to 11:30 a.m. in the Memorial Union Room of Nations. The training will provide information and resources to those attending and is required for individuals to become a Safe Zone Ally.

"Level 2: Gender Identity/Expression" will be offered Thursday, June 23, from 10 a.m. to 11:30 a.m. in the Memorial Union Hidatsa room and Wednesday, July 20, from 10 a.m. to 11:30 a.m. in the Memorial Union Room of Nations. Level 2 is a new training session that will provide more information about gender identity/gender expression and resources for allies who want to support transgender individuals at NDSU. (Since Level 2 does not provide information about becoming a Safe Zone Ally, people must attend Level 1 before they attend Level 2.)

The Safe Zone Ally Program is intended to provide education and support for members of the NDSU campus community who identify as lesbian, gay, bisexual or transgender.

Contact Kara Gravely-Stack, director of the Equity and Diversity Center, at **kara.gravley-stack@ndsu.edu** for more information.

## Student named to Capital One Academic All-America Team



Anderson

Sophomore golfer Amy Anderson was named to the Capital One Academic All-America University Division women's at-large second team by a vote of the College Sports Information Directors of America on June 9.

Anderson, from Oxbow, N.D., has a 4.0 cumulative grade-point average in accounting. She is the second College Sports Information Directors

of America Academic All-American in NDSU women's golf history behind Briena Kappes, a third-team pick in 2006. The women's at-large program includes bowling, crew, fencing, field hockey, golf, gymnastics, ice hockey, lacrosse, skiing, swimming and diving, tennis and water polo.

Anderson, a second team All-America selection by the National Golf Coaches Association, tied for 12th at the NCAA national championship. She led the Summit League with a school-record 73.5 scoring average through 31 rounds. Her season-low was a school-record 68 in the final round to win the Jackrabbit Invitational in March.

Anderson was a top 10 finisher in eight of 11 events this season. She won five tournaments including the Summit League championship, and earned her second straight at-large individual berth in the NCAA tournament.

Anderson was the NCAA Elite 88 award winner at the Division I women's golf championship, which goes to the student-athlete with the highest grade-point average at the national championship finals site.

# Students shine in problem solving and teamwork competition



Left to right: Caitlin Dolezal, Jake Tshida, Michael Burns, Joanna Arnold, Danny Jenniges and Ryan Borstelmann (kneeling).

A group of NDSU students earned second place at Odyssey of the Mind, a world competition of creative problem solving and teamwork skills.

The competition calls for out-of-the-box thinking to solve unusual challenges like building a mechanical device or presenting an interpretation of a literary classic.

This year, 900 teams from 43 states and 25 countries competed at the University of Maryland, College Park, May 27-30. At the college level, NDSU placed first in the U.S. and

second in the world in their challenge area against seven teams in the final round of competition. A team from Poland took first.

Members of NDSU's team included Danny Jenniges, a communication student from Delano, Minn.; Joanna Arnold, an education student also from Delano; Caitlin Dolezal a communication student from Redwood Falls, Minn.; and Ryan Borstelmann and Jake Tshida both communication students from Burnsville, Minn. Michael Burns, a doctoral student and communication instructor, coached the team.

The team began preparing for the competition in September after Odyssey presented long-term problems for teams to work on.

Each team selected one problem. NDSU chose Full Circle, which required creating a humorous skit about something that changes at least three times during the performance, with the final change being back to its original form. The skit also had to include a silly character, a serious character, a surprise ending and a costume made out of trash. The skit was limited to eight minutes and teams could spend no more than \$125 for costumes and props. To view NDSU's skit, go to www.youtube.com/watch?v=2mdlL6jdeYo.

The second portion of the competition included a spontaneous challenge where teams are asked to creatively solve problems on the spot. The problems range from creating a short skit to building a tower to hold objects or creating tools to maneuver objects around a room. Style, the third component of the competition, is a score on the overall look, feel and artistic quality of the team's performance, acting, costumes and props. NDSU took first in both the long-term and style portions and fourth in spontaneous.

For more information on Odyssey of the Mind, contact Burns at michael.burns@my.ndsu.edu or call 1-7705 or go to **www.odysseyofthemind.com**.

# Graduate student receives National Science Foundation Fellowship

Dereck Stonefish, a first-year graduate student in the Department of Biological Sciences, has been awarded a prestigious National Science Foundation Graduate Research Fellowship. In awarding the fellowship, the foundation noted Stonefish's selection "was based on your outstanding abilities and accomplishments, as well as your potential to contribute to strengthening the vitality of the U.S. science and engineering enterprise."

The fellowship, which is awarded for a three-year period from 2011 to 2014, carries a total award of \$151,500 for research-related expenses. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering and mathematics disciplines who are pursuing research-based master's and doctoral degrees in the U.S. and abroad.

Stonefish, who is pursuing a doctorate in zoology, conducts research on the migratory ecology of red-winged blackbirds and yellow-headed blackbirds that are summer residents in North Dakota. He uses geo-locators to track the birds' movements from North Dakota to their wintering grounds and back to the state. "His project not only will provide major insights into the migratory ecology of these species, but the information also will be used to assess how impacts of global climate change may affect migration of these birds," said Erin Gillam, assistant professor of biological sciences, and Stonefish's adviser. Stonefish conducts his field research in North Dakota's prairie pothole region.

Stonefish previously received a Graduate Student Research Assistantship Native American pilot project award in 2010 from the North Dakota Experimental Program to Stimulate Competitive Research (ND EPSCoR). He is a graduate of Sitting Bull College, Fort Yates, N.D. Stonefish is one of only four tribal college graduates in the U.S. to receive an NSF Graduate Research Fellowship since 2006. The National Science Foundation's Tribal Colleges and Universities Program assists eligible institutions prepare students in science, technology, engineering and mathematics fields. Stonefish previously participated in the Nurturing American Tribal Undergraduate Research and Education (NATURE) program sponsored by ND EPSCoR.

Stonefish is the fourth graduate student at NDSU to receive a National Science Foundation Graduate Research Fellowship.

# NDSU researchers receive grants for agricultural projects

Three NDSU researchers have been awarded grants from the North Central Region Sustainable Agriculture Research and Education Program.

Erin Burns, an NDSU graduate student in plant sciences, was awarded a \$10,000 graduate student grant for the project, "Integration of Biological Control and Native Cover Crops for Canada Thistle Control."

Doug Landblom, associate center specialist at the Dickinson Research Extension Center, was awarded a \$199,736 research and education grant for the project, "Increasing Sustainability of Livestock Production of the Northern Great Plains."

Xinhua Jia, assistant professor of agricultural and biosystems engineering, was awarded a \$199,706 research and education grant for the project, "Effect of Optimal Water Management for Sustainable and Profitable Crop Production and Improvement of Water Quality in Red River Valley."

The program's administrative council decides which projects will receive Sustainable Agriculture Research and Education funds. The council includes members from regional farms and ranches, the Cooperative Extension Service, universities and nonprofit organizations. Regional representatives of the U.S. Geological Survey, U.S. Department of Agriculture, Environmental Protection Agency, Natural Resources Conservation Service and regional agribusinesses, state agencies and foundations also assist in distribution of grant money.

Since 1988, the Sustainable Agriculture Research and Education Program has helped advance farming systems that are profitable, environmentally sound and good for communities. It is part of the U.S. Department of Agriculture's National Institute of Food and Agriculture.

### **PEOPLE**

## Tolliver to receive award for innovative education



Tolliver

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Denver Tolliver, Upper Great Plains Transportation Institute associate director, will receive the 2011 Innovation in Education Award from the Institute of Transportation Engineers' Transportation Education Council at their annual meeting during August in St. Louis.

The award recognizes unique or innovative ways of attracting students to or retaining professionals

in the field of transportation engineering.

Tolliver works with the Transportation Leadership Graduate Certificate Program, a nationally supported post-baccalaureate certificate that provides graduate-level education to individuals in the transportation industry via distance learning. He chairs the program's board and has provided leadership in getting the program established.

Tolliver will receive the award with Martin Pietrucha, director of the Larson Transportation Institute at The Pennsylvania State University. Pietrucha also was instrumental in establishing the Transportation Leadership Graduate Certificate Program.

NDSU serves as the administrative home for the program, which offers diverse classes in transportation from top transportation faculty at some of the nation's premier institutions. It addresses the shortage of transportation professionals by attracting experts in related disciplines while providing individuals already in the workforce the opportunity to expand their knowledge beyond a bachelor's degree.

The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals.

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### University Distinguished Professor visits China



Reynolds

Larry Reynolds, University Distinguished Professor of animal sciences, recently completed a 12-day trip to China to promote international exchange and provide international education and research experiences for undergraduate and graduate students. He was an invited keynote lecturer at five symposia/locations:

- The International Symposium on Maternal Nutrition and Fetal Development at the Ministry of Agriculture Feed Industry Centre, China Agricultural University, Beijing, where he presented "Altered placental angiogenesis and vascularity in compromised pregnancies;"
- The Symposium on Nutrition and Reproduction at the Hubei Key Laboratory of Animal Nutrition and Feed Science, Wuhan Polytechnic University, Wuhan, where he presented "Placental Microvascular Growth: Implications for Compromised Pregnancy;"
- The International Symposium on Animal Nutrition and Health and Feed Additives at the Institute of Subtropical Agriculture, Chinese Academy of Sciences in Changsha, where he also presented "Placental Microvascular Growth: Implications for Compromised Pregnancy;"
- The Symposium on Maternal Nutrition and Fetal Development at the Institute of Animal Science, Guangdong Academy of Agricultural Sciences, Guangzhou, where he also presented "Placental Microvascular Growth: Implications for Compromised Pregnancy;" and,
- The South China Agricultural University, Guangzhou, where he presented "Impact of Developmental Programming in Livestock Production."

"I was extremely impressed with the quality of the facilities, the faculty and the students," Reynolds said. "I am convinced that China will be a formidable scientific and agricultural force and that our students need to be engaged with Chinese science. I look forward to promoting similar experiences and exchanges between our faculty and students in the future."

Reynolds visited the University of Sao Paulo in Brazil earlier this year, where he established a collaborative research effort and hopes to create a collaborative agreement that will allow NDSU faculty and undergraduate and graduate students to gain research and educational experiences in Brazil. "With globalization of the economy and especially agriculture, we desperately need to continue to promote these international experiences for our faculty and students," he said.

### Agricultural economics association honors assistant professor



Gregory McKee, assistant professor of agriculture and applied economics, received the "Outstanding Undergraduate Teaching Award" from the Western Agricultural Economics Association in the category for less than 10 years of experience.

The annual award recognizes members of the association who demonstrate personal interest in and availability to students, mastery of subject

matter (course content), creativity in designing and using innovative teaching methods, impact on learning (based on student and peer evaluation) and impact on the departmental teaching program. A committee comprised of association members selects the award recipients.

McKee teaches an undergraduate course on cooperative businesses and a capstone course on agribusiness strategy. He also teaches an online section of the cooperatives course and sections of the course to three other campuses in the North Dakota University System.

### Fine arts assistant director to hold national leadership position



Bill Law, assistant director of fine arts, has been appointed chair of the string area of the National Federation of Music Clubs Young Artist Category. Law will begin his two-year appointment this month. He will complete his appointment in June 2013 during the Young Artist Competitions in McLean, Va.

The National Federation of Music Clubs is a nonprofit philanthropic music organization with the goal of promoting American music, performers and composers through quality music education and high standards of musical creativity and performance. The Young Artist Competition is one of several competitions sponsored by the federation and awards a grand prize of \$10,000 to first place winners.

#### **EVENTS**

### Human Resources/Payroll to sponsor blood drive

The Office of Human Resources/Payroll will sponsor a United Blood Services blood drive Thursday, June 16, from 1 p.m. to 4:30 p.m. The bloodmobile will be parked on the west side of the Memorial Union. The blood drive is open to all faculty, staff and students. Donors must show a photo ID.

To schedule an appointment or for more information, go to www.bloodhero.com and enter the sponsor code: staff. Appointments also can be made by contacting Paulette Schlecht at 1-8961 or paulette.schlecht@ndsu.edu.

# Retirement reception scheduled for Greg McCarthy



McCarthy

An open house in honor of the retirement of Greg McCarthy is scheduled for Wednesday, June 15, from 2 p.m. to 4 p.m. in the atrium of Research 2.

McCarthy joined NDSU as professor of chemistry and geology in 1979. He served as director of the North Dakota Water Resources Research Institute from 1992 to 2001, chair of the Department

of Chemistry from 1993 to 2001, associate vice president for interdisciplinary research from 2001 to 2010, and as the founding director of the Center for Nanoscale Science and Engineering from 2002 to 2009.

McCarthy earned a bachelor's degree in geology from Boston College and a doctoral degree in solid state science from The Pennsylvania State University. He spent the next 10 years on the faculty of Penn State's Materials Research Laboratory. There, his research emphasized crystal chemistry and synthesis of ceramic materials, and new materials for safe disposal of high-level nuclear wastes.

At NDSU, McCarthy taught general chemistry, analytical chemistry and solid state chemistry courses in the chemistry department, as well as mineralogy, petrology and geochemistry in the geology department. He received numerous recognitions for his teaching.

McCarthy's research at NDSU emphasized X-ray analysis of solids, mineralogy and the reuse or safe disposal of solid industrial wastes. During his career, McCarthy wrote or co-wrote nearly 200 papers and book chapters, and edited or co-edited 14 books and two scientific journals. His research funding at Penn State and NDSU, obtained from numerous federal and private sector sources, totaled nearly \$2.7 million. As center or project director, McCarthy administered more than \$130 million in research funding between 2000 and 2009.

McCarthy's awards and recognition include Fellow of the American Association for the Advancement of Science (1985), Burlington Northern Faculty Achievement Award for Meritorious Teaching (1988), College of Science and Mathematics Dean's Award for Distinguished Service (1990), NDSU Faculty Lecturer (1992), Fargo Chamber of Commerce NDSU Distinguished Professor (1995) and Distinguished Fellow of the International Center for Diffraction Data (2005). Among his many professional activities, McCarthy was particularly active in the development of the Materials Research Society between 1978 and 1990, and in leadership of the International Center for Diffraction Data from 1973 to 1993, including serving as chair of the board from 1982 to 1986.

McCarthy and his wife, Denise, a recipient of many awards including the Milken Family Foundation Educator Award for excellence in teaching science and mathematics, established the McCarthy Science Teacher Education Scholarship Fund in 1998 through the NDSU Development Foundation. Outstanding students in the physical sciences have received scholarship awards annually from the McCarthy Fund, through the College of Science and Mathematics.

## Native American purification ceremonies scheduled on campus



Individuals participating in a Smudging ceremony on campus June 6.

A Native American ceremony for spiritual blessing or purification, called Smudging, will be performed at NDSU in the Grandmother Earth's Gifts of Life Garden on the corner of Centennial Boulevard and Administration Avenue on June 17 and July 25. The ceremony will start at 11:30 a.m. and last approximately 20 minutes on both dates. It is free and open to the public.

Smudging follows the Native American tradition for purifying, healing and protecting oneself, persons, objects or places. It is done to cleanse the heart, mind and body of all negative forces.

Smudging uses the smoke from burning sage, cedar or sweet grass. Sage is used to cleanse negative energy surrounding an individual, object or place. Cedar and sweet grass are used to bring good energy to oneself, people, objects or places.

The June 17 ceremony marks the final day of the NATURE Summer Camps. July 25 is the beginning of the Pre-Engineering Education Collaboration Grant Summer Camp.

According to Willard Yellow Bird Jr., City of Fargo cultural planner, smudging can be done by anyone for his or her own spiritual blessing or purification. However, if it is for a group, family or community, the person performing the Smudging must be given certain rights, have been shown how it's done and be able to pray with a medicine bundle.

"In the Arikara (Sahnish) tradition, you must be a member or have ties with a medicine fraternity," Yellow Bird said. "My tradition comes from my great grandfather Yellow Bird who was the spiritual leader in the Ghost Society, which was passed down to his son, my dad. When my dad passed away, I accepted the responsibility."

Before Smudging ceremonies begin, ancestors, now in the spiritual world, are asked to be present at the blessing ceremony.

Yellow Bird was taught that Sahnish Smudging ceremonies have a distinctive beginning and end. The sage is lit and the smoke is first brought to the heart with the hand. Then the smoke is brought to the head to cleanse the mind. Lastly, the smoke is worked up the body, starting at the feet and ending at the top of the head, where the negative forces are released. For more information on Smudging ceremonies, contact Yellow Bird at (701) 476-4116 or **wyellowbird@cityoffargo.com**.

## NDSU researchers publish paper on brain tumor cells

A group of NDSU researchers will have their paper on brain tumor cells published in the interdisciplinary journal, Current Molecular Medicine.

Erxi Wu, assistant professor of pharmaceutical sciences; Fengfei Wang, research associate of pharmaceutical sciences; Kruttika Bhat, doctoral student in Wu's lab; Matthew Doucette, PharmD student; and Shuang Zhou, doctoral student in Wu's lab, co-wrote, "Docosahexaenoic Acid (DHA) sensitizes brain tumor cells to etoposide-induced apoptosis."

The group investigated whether the addition of DHA, a nutritionally important n-3 unsaturated fatty acid, modulated the sensitivity of brain tumor cells to the anticancer drug, etoposide (VP16). Medulloblastoma (MB) cell lines, Daoy and D283, and glioblastoma (GBM) cell lines, U138 and U87, were exposed to DHA or VP16 as single agents or in combination. The effects on cell proliferation and induction of apoptosis were determined by using MTS and Hoechest 33342/PI double staining. U87 and U138 cells were found to be refractory to addition of DHA and VP16 while the two MB cell lines showed high sensitivity. DHA or VP16 added alone showed little effect on cell proliferation or death in either MB or GBM cell lines while pretreatment with DHA enhanced responsiveness to VP16 in MB cell lines. To understand the mechanisms by which combined DHA and VP16 affected MB cells, pathway specific oligo array analyses were performed to dissect possible signaling pathways involved. Addition of DHA and VP16, in comparison to VP16 added alone, resulted in marked suppression in the expression of several genes involved in DNA damage repair, cell proliferation, survival, invasion and angiogenesis, including, respectively, PRKDC, Survivin, PIK3R1, MAPK14, NFkappaB1, NFkappaBIA, BCL2, CD44 and MAT1.

"These results suggest that effects of DHA and VP16 in brain tumor cells are mediated at least in part by down regulation of events involved in DNA repair and the PI3K/MAPK signaling pathways, and raise the possibility that brain tumors genotypically mimicked by MB cells may benefit from therapies combining VP16 with DHA," said the senior author Wu. They have collaborated with Steven Qian and Benedict Law, assistant professors at NDSU. Other collaborators include Yan Gu, doctoral student in Qian's lab; Xinli Liu, assistant professor at Texas Tech University Health Sciences Center; Eric Wong, associate professor at Harvard Medical School; Jing X. Kang, professor at Massachusetts General Hospital and Harvard Medical School; and Tze-chen Hsieh, research associate professor at New York Medical College.

Current Molecular Medicine is an interdisciplinary journal focused on providing current and comprehensive reviews and original research articles on fundamental molecular mechanisms of disease pathogenesis, the development of molecular-diagnosis and/or novel approaches to rational treatment. Its current impact factor is 5.096, ranking 11th of 92 medicine, research and experimental journals, according to its website, **www.benthamscience.com/cmm/index.htm**.

# Professors to present papers at engineering education conference

G. Padmanabhan, professor of civil engineering; Robert Pieri, professor of mechanical engineering; and Carol Davis, a staff member from the Experimental Program to Stimulate Competitive Research (EPSCoR) Tribal Colleges Liaison, co-wrote the paper, "A Unique University-Tribal College Collaboration to Strengthen Native American Pathways to STEM Education." It was accepted for presentation and publication in the Proceedings of the 118th American Society for Engineering Education Annual Conference and Exhibition in Vancouver, Canada, June 26-29.

Another paper, "A Tribal College-University Collaborative Model for Tribal College Student Research Mentoring," co-written by Padmanabhan and Davis, also has been accepted for presentation and publication. Padmanabhan also will moderate an "Understanding our Students" session at the conference.

The first paper summarizes the authors' experiences with the university-tribal college collaborative effort during the past 11 years as it has matured into the current program, Nurturing American Tribal Undergraduate Research and Education (NATURE) funded by the National Science Foundation and ND EPSCoR. They discuss how it started, where it stands now and lessons learned.

The second paper discusses the authors' experience with university-tribal college collaborative student research mentoring, a component activity of NATURE.

Padmanabhan and Pieri are longstanding members of the American Society for Engineering Education. The organization has a worldwide membership of approximately 13,990 people committed to furthering education in engineering and engineering technology and promotes excellence in instruction, research, public service and practice.

# Article published on college student helping behavior

Laura Oster-Aaland, director of orientation and student success; Kevin Thompson, professor and head of the criminal justice and political science department; and Myron Eighmy, professor and coordinator of educational doctoral programs, published a peer-reviewed article in the June issue of Journal of Student Affairs Research and Practice.

The article analyzed the impact of a medical amnesty policy and an online alcohol poisoning video on college students' intentions to seek help when witnessing alcohol poisoning symptoms. Findings provide support for education and policy in influencing college students' intentions to seek help. Practical implications are provided for student affairs administrators who may be considering such policies.

## Paper published about ethanol industry's impact on roads

"Impacts of ethanol plants on highway networks" was published in the spring issue of the Journal of Transport and Land Use. It was written by Alan Dybing and Denver Tolliver, both of Upper Great Plains Transportation Institute, and Subhro Mitra, formerly of the Upper Great Plains Transportation Institute and now at the University of North Texas at Dallas.

The paper describes the impacts of the ethanol industry on existing highway infrastructure in the vicinity of an ethanol production plant. Based on existing pavement condition and the incremental traffic changes, the funds required to maintain the affected roads at their present service levels are quantified.

The article can be found at **www.jtlu.org/index.php/jtlu**. The journal is housed at the University of Minnesota and sponsored by the Center for Transportation Studies.

### SHORTS AND REMINDERS

#### Positions available

Positions open and screening dates through the Office of Human Resources, SGC, 1919 N. University Drive. Position openings also are available through the NDSU website at

#### www.ndsu.edu/jobs.

#### Communication Coordinator/00026411

University Relations Commensurate w/experience Open until filled

#### International Student Adviser/Alumni Outreach Coordinator

International Programs \$28,000+/year June 16

#### Laboratory Technician

Chemistry and Biochemistry \$30,000/year Open until filled

#### Research Specialist/#00020001

Animal Science \$35,000+/year June 24

#### **Nurse Practitioner**

Student Health Services \$46,800+/year Open until filled

#### Technology Manager – CCAST HPC Systems

Computationally Assisted Science and Technology Commensurate w/experience Open until filled

#### Food Technologist Specialist/#00019725

Plant Sciences \$30,000+/year June 16

### Associate Director, Maintenance and Repairs

Facilities Management Commensurate w/experience Open until filled

#### Bison Connection Associate/#00025608

Bison Connection \$26,000+/year Open until filled

### Nutrition Education Assistant, FNP (Sioux County)

Extension Food and Nutrition \$25,900+/year Open until filled

### Nutrition Education Assistant, FNP (Fort Berthold)

Extension Food and Nutrition \$25,900+/year Open until filled

#### Beef Herdsman

Hettinger Research Extension Center \$32,000+/year June 15

#### Athletic Equipment Assistant/ #00019749

Athletics Commensurate w/qualifications Open until filled

#### Ag Research Technician/#00023280

Animal Sciences \$31,000+/year Open until filled

#### Agricultural Research Technician/ #00020059

North Central Research Extension Center Commensurate w/experience June 24

#### Administrative Secretary/#00019040

Office of Multicultural Programs \$24,000+/year June 20

#### Custodian (two positions)

Residence Life \$19,760+/year Open until filled

## Catering/Swing Cook (hours vary depending on business)/#00025303

Dining Services \$12.50+/year Open until filled

#### Custodian/#00020692

Residence Life \$19,760+/year Open until filled

### SHORTS AND REMINDERS CONT.

#### Policy updates

The following policies have been added or revised. To view the complete policy, go to **www.ndsu.nodak.edu/policy**.

### Policy 100: Equal Opportunity and Non-Discrimination Policy

Added two protected classes to provide equal opportunity and freedom from discrimination based on gender expression and genetic information.

### Policy 202: Procedures for Filing Broadbanded Positions

Since this is a procedure and not a policy, it will be taken out of the policy manual. The updated procedure will be put on the Human Resources/Payroll website under "Manager's Toolbox" and the "Administrative Toolbox" under "Recruitment."

#### Policy 331.1: Course Syllabus

Revised academic honesty statement; mentioned Dead Week policy in schedule/outline; suggested language for military/veterans who are called to active duty and added information regarding recording and distributing class audio or video.

#### Policy 353: Grievances - Faculty

Changed the selection process and membership of the Special Review Committee.

#### Policy 603: Sexual Assault and Other Sexual Offenses Student Policy

Revised to clarify terminology, process and expectations.

#### Policy 608: Suicide Threat Response Policy

Updated to more accurately reflect current practice regarding suicidal threats. The Behavior Intervention Team (Policy 601.1) replaced the Emotional Emergencies Team, and references to establishing behavior contracts as a means to address concerns have been removed to reflect current practice and national trends.

### **CALENDAR**

#### JUNE

15 **Greg McCarthy retirement open house** – 2 p.m. to 4 p.m., remarks at 2:30 p.m., Research 2 atrium.

16 **Blood Drive** – 1 p.m. to 4:30 p.m., west side of the Memorial Union. Sponsored by Human Resources/Payroll. For more information, visit **www.bloodhero.com**.

16 Chemistry and Biochemistry seminar, "Targeting Gli1 and Gli-mediated Transcription in ER alpha Negative and Triple Negative Breast Cancer" – presented by Andra R. Frost, assistant professor, School of Medicine, University of Alabama at Birmingham, 3 p.m., Ladd room 107.

29 Retirement party for Ron Peterson, associate executive director of finance, NDSU Development Foundation – 3 p.m., NDSU Alumni Center. RSVP by June 30 by calling 1.6834 or joann@ndsualumni.com.

30 U.S. Global Leadership Coalition event, "A Conversation on National and Economic Security" – 8 a.m. to 9:15 a.m., NDSU Alumni Center. Register here. For more information, visit www.usglc.org or email mmichaelree@usglc.org.

### MORE CAMPUS EVENTS www.ndsu.edu/eventcalendar

NEXT ISSUE Publication date: Thursday, June 30 | Submissions due: June 27 at noon SEND SUBMISSIONS TO THE EDITOR Linsey Davis | ndsu.itshappening@ndsu.edu

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