

NDSU

VOLUME 3 ISSUE 3

IT'S HAPPENING AT STATE

FEBRUARY 15 2011

Published by the Office of the Vice President for University Relations.

Defense Secretary Gates to address NDSU spring commencement



Gates

North Dakota State University President Dean L. Bresciani announced Feb. 2 that U.S. Secretary of Defense Robert M. Gates will be the guest speaker at NDSU's spring commencement May 14.

Dr. Robert M. Gates was sworn in on December 18, 2006, as the 22nd Secretary of Defense. Dr. Gates is the only Secretary of Defense in U.S. history to be asked to remain in that office by a newly-elected

President. President Barack Obama is the eighth president Dr. Gates has served.

Before entering his present post, Dr. Gates was the President of Texas A&M University, the nation's seventh largest university. In 2004, he hired Bresciani from the University of North Carolina at Chapel Hill to serve as Vice President of Student Affairs at Texas A&M. Prior to assuming the Texas A&M presidency in 2002, Gates served as Interim Dean of the George Bush School of Government and Public Service at Texas A&M from 1999 to 2001.

"Secretary Gates exemplifies a career of selfless service to our country at a level with few parallels, and through the course of his tenure leading Texas A&M University, became a broadly respected higher education leader," Bresciani said. "We are honored that North Dakota State University's graduates will have the opportunity to hear from such a notable patriot, scholar and public servant."

Dr. Gates joined the Central Intelligence Agency in 1966 and spent nearly 27 years as an intelligence professional. During that period, he spent nearly nine years at the National Security Council, The White House, serving four presidents of both political parties.

Dr. Gates served as Director of Central Intelligence from 1991 until 1993. He is the only career officer in CIA's history to rise

from entry-level analyst to Director. He served as Deputy Director of Central Intelligence from 1986 until 1989 and as Assistant to the President and Deputy National Security Adviser at the White House from January 20, 1989, until November 6, 1991, for President George H.W. Bush.

Secretary Gates has been awarded the National Security Medal, the Presidential Citizens Medal, has twice received the National Intelligence Distinguished Service Medal, and has three times received CIA's highest award, the Distinguished Intelligence Medal.

He is the author of the memoir, *From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War*, published in 1996.

While President of Texas A&M University, Gates also served as Chairman of the Independent Trustees of The Fidelity Funds, the nation's largest mutual fund company, and on the board of directors of NACCO Industries, Inc., Brinker International, Inc. and Parker Drilling Company, Inc.

Secretary Gates also has served on the Board of Directors and Executive Committee of the American Council on Education, the Board of Directors of the National Association of State Universities and Land-Grant Colleges, and the National Executive Board of the Boy Scouts of America. He has also been President of the National Eagle Scout Association.

A native of Wichita, Kansas, Secretary Gates received his bachelor's degree from the College of William and Mary, his master's degree in history from Indiana University, and his doctorate in Russian and Soviet history from Georgetown University.

NDSU's spring commencement is scheduled for 10 a.m. Saturday, May 14, at the Fargodome.

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 Feb. 28 It's Happening at State

The next electronic issue of *It's Happening at State* will be posted on Feb. 28 at www.ndsu.edu/ihas. Submissions for this issue are due Feb. 23.

Technology Fee Action Plans due March 1

The Technology Fee Advisory Committee solicits action plans and funding requests aimed at improving the quality of education and campus life at NDSU through technology. Proposals designed to improve the information technology capabilities and services for students, faculty and staff are due March 1. Past funded proposals and a copy of the action plan template can be found at www.ndsu.edu/tfac.

NDSU spring enrollment reflects student success

NDSU's focus on student success resulted in an enrollment increase for the 12th year in a row to 13,533 students in the university's undergraduate, professional and graduate programs compared with 13,411 students a year ago. The official enrollment figures, which are compiled following the fourth week of classes, were announced Feb. 8.

President Dean L. Bresciani said the enrollment figure reflects the effectiveness of NDSU programs that guide students to succeed academically and personally. "NDSU is unique nationally in that it is a land-grant, research-based and student-focused university," said Bresciani. "That combination provides what few others do and our students are realizing the benefits." Student success programs include first-year student mentoring and learning, student involvement, service and leadership.

The number of new freshmen for the semester stands at 54, and there are 276 new transfer students. Graduate student numbers increased to 2,213 compared with last spring's all-time record enrollment of 2,146. In addition, NDSU's international student population is now 1,274 undergraduate and graduate students. That number compares with 1,216 during the previous spring semester.

NDSU students initiate new advising center

North Dakota State University students have a new NDSU Advising Resource Center at the Memorial Union.

Center staff will help students with questions regarding general education requirements, academic policies and adding or changing majors, and will connect students with advisers within their disciplines.

Student Body President Kevin Black and Vice President Shawn Affolter pushed for an advising center. "Shawn and I have always recognized that advising was a serious concern for our students. We proposed an advising center as a solution and talked extensively about this on our campaign," said Black. "The idea is to make sure that the needs of students are covered. We don't want anyone falling through the cracks. The center serves as a starting point for students looking for general advice or connecting with an adviser."

Ed Deckard, professor of plant sciences, who helped organize the center said, "The intention is to improve academic success of students. We in no way want to undermine traditional academic advising, but instead be a quick stop for students with questions and to connect them with their academic advisers."

The center is located in the Gunkelman Room adjacent to the Student Activities Office and the Memorial Union Coffee Shop. Walk-in visits are welcome Monday through Friday from 9 a.m. to 4:30 p.m. For more information, call 1-8662.

Faculty tours Minard Hall construction zones



About 100 North Dakota State University faculty members toured the construction areas of Minard Hall Feb. 4 and saw the interior of the building for the first time since the collapse of the northwest corner about one year ago. Personnel from JLG Architects, Fargo, the design firm working on the project, led groups through the building and answered questions.

Faculty walked through dry-walled office spaces, reception areas and framed hallways during their four-floor tour of parts of the 1918 and

1929 sections of Minard, toward the north end of the building. One of the highlights of the tour was the second floor lecture space, formerly classroom 219. The classroom features tiered seating and large exterior windows that saturate the space with light.

Lee Dobrinz with JLG said the firm decided to give tours of Minard to displaced faculty because so much work is going on that cannot be seen. "These tours were important in helping people understand the process and see their future homes," said Dobrinz. "We also want to build up some excitement about it so people get excited about seeing where their new home is going to be. Dobrinz said the Department of Modern Languages is expected to move into its permanent third floor space during the summer months.

Amy O'Connor, associate professor of communication, said the tour was helpful. "It was great because we got to see what progress was being made behind closed doors," she said.

Minard's north addition project, which has been stalled since the collapse of the northwest corner, is being redesigned without a basement mechanical room. The equipment will now be housed on a fifth floor. Below the surface of the northwest corner, deep foundations have been placed in preparation for the new addition. The northwest section of Minard Hall collapsed during the early morning hours of Dec. 27, 2009. No one was in the building at the time.

Family Weekend scheduled

Family Weekend at NDSU has been scheduled for Sept. 9-11. The weekend is a chance for families to visit campus and spend time with their student while experiencing art, academics and athletics at NDSU.

More than 500 family members typically participate in the annual event that is sponsored by the Office of Orientation and Student Success. For more information about Family Weekend or to include an event, contact Nancy Mueller in the Office of Orientation and Student Success at 1-8379. An invitation listing the events will be sent to families in early August.

Counseling Center reaches suicide prevention training goal

The NDSU Counseling Center recently reached and surpassed its goal of training suicide prevention to 1,800 members of the NDSU community, including faculty, students and staff. The original goal of the program was to train 1,800 people during a three-year period. This goal was reached in a little more than two years. Training was accomplished through the presentation of NDSU CARES (Campus Awareness, Referral and Education for Suicide Prevention), a suicide prevention project aimed at educating individuals about the warning signs of suicide and steps to be taken to decrease risk.

According to a study by the Centers for Disease Control published in the *Journal of Consulting and Clinical Psychology* 1995, 10 percent of college students admitted to having suicidal thoughts during the 12 months preceding the survey. It is estimated that 1,100 college students die by suicide every year, an average of three per day, according to the National Mental Health Association/The Jed Foundation. Many times that number, 1.5 percent of the college population, report having made at least one suicide attempt according to the American College Health Association. The question before American colleges and universities is not if they should deal with suicidal students, but how.

The NDSU Counseling Center is a nonprofit organization serving NDSU students. Services are free for NDSU students and include individual, couples and group counseling. A resource library is available and workshops are offered on areas such as stress management, depression, anxiety, meditation, academic success, career exploration, mindfulness and the use of the Counseling Center.

Generous donors helped make the NDSU CARES project possible. The Dakota Medical Foundation provided a \$10,000 grant and the NDSU Alumni Association provided a \$1,500 grant to the Counseling Center.

NDSU CARES training sessions will continue to be offered and scheduled by calling the Counseling Center at 1-7671.

Winter costume display features velvet

Velvet garments and accessories from the Emily P. Reynolds Historic Costume Collection will be displayed on the fourth floor of the Family Life Center through Feb. 21.

Faculty, staff, students and visitors are invited to learn more about the different types of velvet by examining the collection's prized velvet pieces — an embossed velvet cape from the early 1900s, a blue Hollywood-inspired gown from the 1930s and a red velveteen dress worn by the NDSU Sigma Alpha Epsilon sweetheart in 1959.

For more information about the historic costume collection, visit www.ndsu.edu/erhcc or www.facebook.com/erhcc.

Technology Fee Action Plans due March 1

Technology Fee Action Plans are due to the Technology Fee Advisory Committee by March 1.

NDSU's student technology fee funds a broad range of projects designed to improve the information technology capabilities and services for students, faculty and staff. The Technology Fee Advisory Committee solicits action plans and funding requests aimed at improving the quality of education and campus life at NDSU through technology. Proposals specifically addressing innovative uses of technology to improve instruction and student learning are encouraged. The committee has a strong interest in one-time funding opportunities offering a unique application of technology enhancing the student experience.

A copy of the action plan template and past funded proposals/reports can be found at www.ndsu.edu/tfac. The committee seeks proposals that introduce new, innovative tools for instruction and learning or provide a broad appeal to NDSU students.

To receive consideration, deliver a paper copy of the action plan, with all the required signatures, to the committee, c/o Bonnie Neas, vice president for information technology, IACC 204, and submit an electronic copy of your action plan to rian.nostrum@ndsu.edu by March 1.

NDSU Center for Nutrition and Pregnancy to be recognized

The NDSU Center for Nutrition and Pregnancy will be recognized at the first-ever Agriculture, Food, Nutrition and Natural Resources Research and Development Roundtable to be held in conjunction with the American Association for the Advancement of Science meeting in Washington, D.C., in March. The roundtable is being organized by several leading agricultural organizations and federal agencies to raise the profile of agriculture, food and natural resources research and development throughout the federal government and beyond, and highlight the characteristics of highly productive collaborations to enhance future collaborations. Of 61 applications received, eight centers were selected to give presentations and an additional six, including the NDSU Center for Nutrition and Pregnancy, were selected for special recognition. Larry Reynolds, center investigator who took the lead in writing the proposal, and Joel Caton and Kim Vonnahme, center co-directors, will attend the roundtable.

In addition to numerous external collaborators, local collaborators in the Center for Nutrition and Pregnancy are Mario Biondini, Glenn Dorsam, Stephen O'Rourke, Wendy Reed, Chris Schauer, Charlie Stoltenow and Chengwen Sun. Key investigators are Marc Bauer, Eric Berg, Paul Berg, Pawel Borowicz, David Buchanan, Caton, Anna Grazul-Bilska, Carrie Hammer, Mary Lynn Johnson, Kasey Maddock Carlin, David Newman, Dale Redmer, Reynolds, Kendall Swanson and Vonnahme, all from the Department of Animal Sciences.

Sunday Academy enhances Native American students' education

Sunday Academy, a part of Nurturing American Tribal Undergraduate Research and Education (NATURE) program supported by National Science Foundation and North Dakota Experimental Program to Stimulate Competitive Research (ND EPSCoR), is in its 10th year reaching out to Native American high school students in North Dakota. One Sunday each month, from September to April, approximately 20 area high school students meet at one of the tribal colleges to participate in science, technology, engineering and mathematics enhancement activities on a variety of subjects. Faculty from NDSU and UND travel to tribal colleges and work with tribal college faculty and high school teachers in the instructional activities.

As in all other NATURE activities, connection to the Native American culture is always emphasized. Hands-on activities also play an important part. Lessons are conceived, developed and delivered collaboratively. The program started with one tribal college and has expanded to include five tribal colleges: Cankdeska Cikana Community College, Fort Totten; Fort Berthold Community College, New Town; Sitting Bull College, Fort Yates; Turtle Mountain Community College, Belcourt; United Tribe Technical College, Bismarck; plus NDSU and University of North Dakota, Grand Forks.

The 2010-11 Sunday Academy lesson topics and instructors include:

1. **Fun with Physics and Computers**
Mafany Mongoh, Sitting Bull College
Alan Denton, NDSU physics
Anne Denton, NDSU computer science
2. **Hydrogen Bonding and Surface Tension of Water**
John Lohnes, Four Winds High School
Lane Azure, Cankdeska Cicana Community College
Yechun Wang, NDSU mechanical engineering
3. **Laws of Electricity**
Joe Twobear, Solen High School
Prakash Ranganathan, UND electrical engineering
4. **How Acidic They Are?**
Chris Dahlen, Cankdeska Cicana Community College
Julia Zhao, UND chemical engineering
Hanying Xu, UND Environmental Analytical Research Laboratory
5. **Food Safety: The Importance and Analysis of Aflatoxin in Corn**
Nina McCain, McLaghlin High School
Deland Myers Sr., NDSU School of Food Systems
Clifford Hall, NDSU School of Food Systems
6. **Muscle Contraction and Grip Strength**
Renee Aalund, Turtle Mountain High School
Valerie Malatree, Turtle Mountain High School
7. **Shapes of Nature: Fractals**
Miles Pfahl, Turtle Mountain Community College
Luther Olson, Turtle Mountain Community College

Chad Ulven, assistant professor of mechanical engineering, coordinates the Sunday Academy component of NATURE.

To learn more about NATURE and Sunday Academy, visit www.ndepscor.nodak.edu/NATURE/sundayacad.html or contact G. Padmanabhan, professor of civil engineering and director of the NATURE program, at g.padmanabhan@ndsu.edu or 1-7043.

Staff Recognition Awards nominations sought

The Staff Senate, in partnership with the Office of Human Resources/Payroll, invites the NDSU community to submit nominations for the 2011 Staff Recognition Awards. The awards are given to acknowledge outstanding achievement on the job, exceptional contributions toward the effectiveness and efficiency of operations, or outstanding service to other employees, students or visitors. They also honor distinguished efforts in staff development.

Nominations of broadbanded staff members in two categories, Individual Awards and a Team/Committee Award, will be accepted until 4 p.m. on Friday, March 11.

Up to 10 individual awards will be given based on broadbanded percentages at NDSU. A single Team/Committee Award also will be given to a team of two to 10 members.

Individual Award winners will receive \$250 cash awards. The Team/Committee award winner will receive a \$600 cash award (maximum of \$250 per individual team member). Winners will be announced and recognized at the Staff Recognition Luncheon on April 12.

Winners of the Individual Awards also will be considered for Governor's Awards. In 2009, two Individual Award winners were selected for the award and were recognized by the governor at the Capitol Building in Bismarck.

Nomination forms and guidelines are available at www.ndsu.edu/staff_senate/staff_recognition_award. Forms can be completed and submitted online or a PDF copy can be printed and submitted to Staff Senate, c/o Jan Lofberg, CIE 201. To obtain a paper nomination form, contact Lofberg, staff senator of the Employee Recognition Committee, at jan.lofberg@ndsu.edu or 1-7244.

Livestock judging team excels at National Western Stock Show

Members of the NDSU Junior Livestock Judging Team earned individual awards in the top 10 at the National Western Livestock Show contest in Denver. Beth Hendrickx was fifth, James Kapp was eighth and Samantha Froelich was 10th in the individual overall National Western carload contest. This spring, they will continue to compete at the Sioux Falls Empire Show, Nebraska Cattleman's Classic and the Meat Animal Evaluation Contest.

Team members include Froelich, Hendrickx, Kapp and Reed Kampmeier. The team's coach is Benjamin Williams, lecturer in animal science.

President Bresciani announces award availability

President Dean L. Bresciani announced the availability of three awards designed to support and enhance the engagement of NDSU with Fargo and North Dakota. Each award carries a stipend of up to \$20,000.

The Ozbun Economic Development Award is established to stimulate NDSU faculty to assist the state with economic development. Up to \$20,000 (\$10,000 as supplemental salary and \$10,000 for expenses of the project described in the application) will be awarded in recognition of the presidency of Jim Ozbun.

The applicant must be a full-time faculty member at NDSU with the rank of assistant, associate or full professor. They also must be employed at NDSU when award payments are made.

Possible projects could be studying the impact of tourism relative to wildlife, fisheries and other related environmental issues; water movement of the Red River; or work force evaluation of displaced farmers.

The Efficiency in Government Award sponsors studies to increase efficiency in state, county and city government in North Dakota.

Individuals or entities from NDSU or outside of NDSU may make proposals and receive funding. Proposals are restricted to projects in North Dakota and all funds are to be spent in North Dakota. Possible projects could be to study ways to obtain better results from economic development funds and Extension pilot studies.

The Community Projects Award sponsors studies for betterment of the community in the area of social concerns. Individuals or entities from NDSU or outside of NDSU may make proposals and receive funding. Community projects are restricted to the city of Fargo. Possible projects include Mothers Against Drunk Drivers, crime stoppers, student recycling program, service learning or graffiti removal. These examples are not intended to limit the kinds of projects eligible for awards.

Anyone interested in applying for the awards should submit a one-page proposal, including a proposed budget, to the President's Office, Old Main 102, no later than Friday, April 1.

Staff Senate presents Campus Kudos

Staff Senate has recognized two groups and an individual with Campus Kudos for exemplary job performance. The honors were awarded at the organization's Feb. 2 meeting.

NDSU Student Government was acknowledged for its support of NDSU's Gold Star Marching Band. Student Government has allocated \$40,000 for the band.

Gold Star Marching Band was honored for its outstanding service and commitment to the university, community and the state of North Dakota for performing without stipends. The Campus Kudos honor recognized each band member for making adjustments to continue the band's century-old traditions.

Brent Goosen, a welder in the Pilot Plant, also was recognized. Considered a hero to NDSU Upward Bound during Homecoming Week, he was instrumental in assisting Upward Bound staff with their float the night before the Homecoming parade. He stayed late to help, when he was supposed to travel to Hutchinson, Minn., to watch his son play in a football game. Even with his extra effort, Goosen made the game on time.

Individual recipients of Campus Kudos receive a certificate and a \$5 gift certificate to the Coffee Shop. In this case, group honorees were recognized with framed certificates.

If you would like to nominate someone for a job well done, visit www.ndsu.edu/staff_senate/campus_kudos.

Dietetics students to operate restaurant on campus

NDSU students and faculty in the dietetics program are opening a restaurant Tuesday, Feb. 22, in the Family Life Center, room 312. The "800 Café" will be open every Tuesday and Thursday until April 28. Guests will be seated from 11 a.m. to 12:15 p.m.

A Spring Fever event is scheduled for Tuesday, Feb. 22, and Thursday, Feb. 24. The lunch menu will begin with a naan bread sampler served alongside roasted red pepper hummus and fresh tzatziki sauce. The entrée includes apple-feta chicken salad and is garnished with avocado, cranberries, and served with homemade parsley vinaigrette dressing. The meal concludes with homemade chocolate upside cake topped with whipped topping garnished with berries. The experience is hosted by the dietetics students and managed by Stephanie Bechtle and Lauren Reed.

The menu will change each week. All items will be served fresh and homemade. The cost is \$7 per meal. Three-meal punch cards also are available for \$20. Cash or check payments will be accepted.

Parking is available in the visitor lot on campus. Meals are available for take-out. Walk-ins are welcome, but reservations are preferred because seating is limited. To make reservations, contact Ronda Klubben at ronda.klubben@ndsu.edu or 1-7487.

The class's instructor is Sherri Nordstrom Stastny, assistant professor of health, nutrition, and exercise sciences.

Northern Crops Institute to offer short courses in April and May

Pasta Production and Technology Short Course

Northern Crops Institute's first pasta short course of the year will be April 12-14.

The "Pasta Production and Technology" short course introduces pasta manufacturers to the fundamental and applied aspects of manufacturing extruded and sheeted pasta products. Raw material quality criteria, specifications and processing variables and their impact on final pasta product quality are presented in detail.

Course faculty will include Gabriele Cannata, DeMari Pasta Dies USA; Radwan Ibrahim and Alexis Freier, Dakota Growers Pasta Co.;

Michael Ehr, Buhler Inc.; Frank Manthey and Elias Elias, NDSU; and Brian Sorenson and Mehmet Tulbek, Northern Crops Institute.

The registration fee is \$900. Payment in full is due one week before the start of the course. Registration deadline is March 21.

A second pasta production course, "Pasta: Raw Materials and Processing Technology," will be offered Aug. 8-12. For more information or to register, visit www.northern-crops.com and follow the educational link, or call 1-7736.

Functionality of Canola and Flaxseed Short Course

Northern Crops Institute will offer a short course titled Functionality of Canola and Flaxseed April 26-28 at Northern Crops Institute in Fargo. The focus of the course is the use of flaxseed and canola in fortified foods. The registration deadline is April 4.

Health benefits, such as reducing heart disease and cancer risks, are pushing interest in flaxseed and canola oil as ingredients in fortified foods. In the past decade, a significant number of products containing flaxseed and canola oil have been developed primarily for the health food market.

The course will assist the food industry in developing functional food products and improving current formulations that use flaxseed and canola oil as consistent ingredients for the functional food market. Milled flaxseed traditionally has been used as an ingredient in breakfast cereals and breads, whereas canola oil is primarily used as healthy oil in baked products, dairy foods and frying applications.

Food product development applications (baked, dairy and snack products), nutritional aspects, labeling, process technologies and sensory evaluation of canola and flaxseed fortified foods will be discussed. Lectures will be supplemented by considerable hands-on experience in the institute's baking and processing laboratories.

The course is designed for senior administrative professionals, research and development managers, food product development scientists, quality control managers and purchasing agents of baking, milling, pasta and noodles, puffed snacks and breakfast cereal companies.

Registration fee is \$750. For more information and to register, visit www.northern-crops.com or call 1-7736.

Advanced Grain Procurement Strategies Short Course

Northern Crops Institute will offer the Advanced Grain Procurement Strategies Short Course May 16-20 at Northern Crops Institute in Fargo. The course is designed for global grain buyers who want to gain a competitive edge in grain marketing decisions to better manage price and quality risks.

Trading games, case studies involving real world situations and panel discussions will supplement the lectures in basis analysis, trading strategies, price risk management strategies, quality specifications strategies, logistics management and buyer/seller relations in grain procurement.

William Wilson, distinguished professor of agribusiness and applied economics and an expert in commodity futures trading, will lead the course. Also, course participants will have an opportunity to interact with U.S. grain merchandisers, who have

years of practical experience in the international grain business.

Course attendees should be actively involved in grain merchandising and well versed in grain marketing or have a basic understanding of commodity merchandising principles. Participants must be fluent in the English language.

The course registration fee is \$1,100. Payment in full is due one week before the start of the course. Registration deadline is April 25. Course fee includes a CD-ROM associated with lectures and laboratory demonstrations, scheduled breaks and one luncheon. Hotel rooms and other meals are not included in the fee.

Cancellations received after April 25 will be assessed a 10 percent service fee. Special rates are available to groups of three or more from the same company. For more information and to register, go to www.northern-crops.com and follow the educational courses link, or call 1-7736.

RESEARCH

Civil engineering professor researches properties of seashells



Katti

Mimicking nature could lead to new technologies, according to Kalpana Katti, distinguished professor of civil engineering. She is quoted in the recent article "Seashells so tough they'll kick sand in your face," featured on MSNBC at www.msnbc.msn.com/id/41378069/ns/technology_and_science-science and in LiveScience with the article, "Seashells get

their strength from interlocking bricks" at www.livescience.com/11696-seashells-strength-interlocking-bricks.html.

"The seashells took some very humble materials, chalk and proteins, and made something a lot tougher," said Katti in the article, which highlights other recent research done at Purdue University, and was published online in Nature Communications. Abalone seashells consist of an outer layer with a tough inner layer called nacre, more commonly known as mother-of-pearl. In the Live Science article, Katti notes that additional research is needed to understand nacre and its properties. "The organic in nacre is a cocktail of 30 proteins, and we don't know the structure of even one," she told LiveScience. "The mechanics of nacre is very complex."

While the dual life of mother-of-pearl encompasses beauty and strength, scientists aren't interested in making seashells. "We want to use other materials and understand how seashells are made. Just like nature has taken calcium carbonate and made it 3,000 times tougher, we can take other composites and make them thousands of times tougher," explains Katti. "It could make possible lightweight armored aircraft, body armor, artificial body parts and protective coatings that are strong and flexible." She points out that their research has shown that nacre's interlocking bricks, platelet rotation and properties of organics are critical. "If we can play with those, we can engineer materials that are much better than what we have now."

In addition, research done in the Katti and Katti group at NDSU has shown that mineral proximity plays a profound role on mechanics of proteins. This was observed through steered molecular simulations on mechanics of nacre proteins in proximity of calcium carbonate minerals in nacre. This fact also was observed by the group for synthetic polymers in close proximity of nanoclays and nanohydroxyapatite, and also observed for human bone. The conclusion is that organics in nanoscale proximity with charged mineral surfaces exhibit mechanical behavior far superior to their innate insitu behavior. Biology, such as in seashells and bone, often presents good examples of nanoscale proximity of organics with minerals.

Data mining technology created at NDSU licensed to Treeminer Inc.



Perrizo

A novel vertical data mining method developed at NDSU offers significant accuracy and scalability advantages over current methods. William Perrizo, distinguished professor of computer science, and his team have developed a technology tool to help government and businesses quickly process massive data sets. Treeminer Inc. announced it has concluded a license agreement with the NDSU Research Foundation. The agreement gives Treeminer exclusive rights to further develop, market and sell the patented, award-winning data mining solutions. Treeminer will begin select demonstrations of the technology in the first quarter of 2011.

The amount of data available to businesses and governments is growing far faster than their ability to analyze the information. Significant advantage can be gained by being able to quickly make sense of millions or even billions of pieces of data, and applying the resulting knowledge. By organizing data vertically and then compressing it into a patented data structure called a pTree (predicate tree), dramatic reductions in analysis times can be gained over existing methods. Applications for the data mining technology based on pTree algorithms range from defense and intelligence to satellite image analysis, agriculture, computer network security, medical diagnostics, bioinformatics and resource allocation.

“Today, data mining vendors are asking their customers to make trade-offs between the speed of analysis and its accuracy,” observed Mark Silverman, CEO of Treeminer Inc. “The truly novel approach taken by the team at NDSU enables incredibly dramatic decreases in analysis time while actually improving the accuracy of the analysis. We think that data mining technology will be a critical, fundamental building block technology across the information technology spectrum, and have formed the world’s first Vertical Data Mining Company to bring this technology to a large and growing market.”

Perrizo developed the patented algorithms and software on which the technology is based. “In the information science sphere, new

approaches can sometimes affect increases in both the speed and accuracy of knowledge discovery. The pTree technology is an example of that,” said Perrizo.

Representatives from the NDSU Research Foundation introduced Perrizo’s work in data mining to Silverman, the entrepreneur who founded Treeminer. “Online analysis of large databases demands analysis that happens in seconds instead of hours,” according to Silverman.

The technology developed by Perrizo and his team represents approximately a 15-year effort in data mining research. “Efforts such as Perrizo’s illustrate the expertise available at NDSU that contributes to the body of knowledge in many areas, and contributes to the strength and vitality of state and national economic interests,” said NDSU President Dean L. Bresciani. “We congratulate Bill and his team on reaching this milestone.”

With the technology licensed to Treeminer Inc., data mining operations on the pTree structure generated from large databases means data analysis becomes blazingly fast. The algorithms and software patented by Perrizo efficiently, accurately and elegantly mine the data for useful information, like an archeologist sifting through the dust to uncover hidden treasures.

The data is turned on its head, sliced up to change it into a vertical structure resulting in long, skinny pieces of data that are then compressed into a pTree to better manage it. “That wouldn’t be all that useful if you had to uncompress every time you wanted to process the information. But we don’t. We can process the compressed pTrees,” said Perrizo. This approach enabled Perrizo to win the prestigious 2006 Knowledge Discovery and Data Mining Cup in solving what had been once characterized as the “Holy Grail” of Computer Aided Detection in medicine. Perrizo’s team on software development for pTree technology includes Greg Wettstein, chief computational scientist and principal engineer for Research Computing Services at NDSU. “Dr. Wettstein is one of the best systems programmers in the world today and we are fortunate to have him on this team,” said Perrizo.

“The coordinated efforts among NDSU researchers, the university’s Technology Transfer Office and the NDSU Research Foundation help lay the groundwork for commercialization of discoveries developed at NDSU,” noted Philip Boudjouk, vice president for research, creative activities and technology transfer.

The NDSU Research Foundation’s technology and licensing income from NDSU research discoveries has grown from \$1.2 million in fiscal year 2006 to \$1.88 million in fiscal year 2010. NDSU inventors, colleges and departments actively involved in developing innovations share in net revenue distributed by the Research Foundation.

“We are thrilled to see Dr. Perrizo’s important work reach the market,” said Dale Zetocha, executive director of the NDSU Research Foundation. “It represents a great opportunity to commercialize this research.”

Researchers release cloud computing simulator



Khan

Samee U. Khan, assistant professor of electrical and computer engineering, and colleagues P. Bouvry and D. Kliazovich from the University of Luxembourg have released under the General Public License Agreement a sophisticated cloud computing simulator called GreenCloud.

According to Khan, the lack of detailed simulators on the market was the motivation to develop GreenCloud that allows researchers to observe, interact and measure cloud performance. There also was no provisioning for observing clouds for their energy-efficiency.

GreenCloud is an extension of the well-known NS2 network simulator. It is focused primarily on the communications within a cloud, i.e., all of the communication processes are simulated on packet level. About 80 percent of GreenCloud code is implemented in C++ while the remaining 20 percent is in the form of Tool Command Language scripts.

Visit <https://gforge.uni.lu/projects/greencloud> to download GreenCloud.

PEOPLE

Myers elected to diversity board



Myers

The National Association of Diversity Officers in Higher Education recently announced that Evie Myers, vice president for equity, diversity and global outreach at NDSU, has been elected to serve a three-year term on the board of directors.

The association is the voice for diversity officers in higher education. Its vision is to lead higher education toward inclusive excellence through institutional transformation.

NDSU President Dean L. Bresciani said Myers selection illustrates that NDSU is nationally recognized for its diversity efforts. "Vice President Myers has propelled NDSU to the national spotlight with her work in making our university more welcoming for everyone," he said.

The other newly-elected officials to the board are: Terri Harris Reed, vice provost of institutional equity and diversity at Princeton University; Fred Rodriguez, associate vice provost for diversity and equity at the University of Kansas; Christine Stanley, vice president and associate provost for diversity at Texas A&M University; and Gregory Vincent, vice president for the Division of Diversity and Community Engagement at University of Texas at Austin.

The board of directors will be installed during the association's annual conference meeting on March 8, in Washington, D.C. The association has 159 institutional members and 117 individual members.

IT security officer named chair of Security Professionals Conference

Theresa Semmens, NDSU chief information technology security officer, has been named chair of the 2011 Security Professionals Conference in San Antonio. The conference will take place April 4-6.

This year's conference, "Setting a Course for Collaboration and Innovative Solutions," will focus on security topics that span the information assurance measures of people, process and technology. As chair, Semmens has been working with other committee members to plan and organize conference sessions and speakers.

"I'm honored to be leading this event," Semmens said. "This conference is invaluable for security professionals across the country, and I have enjoyed the experience of collaborating with other IT professionals to make it happen."

The event is sponsored by EDUCAUSE, a nonprofit association created to advance higher education by promoting the intelligent use of information technology, and Internet2, a U.S. advanced networking consortium led by the research and education community to promote collaboration and innovation to impact future use of the Internet.

Semmens has served as an IT security officer at NDSU since 2003, and has been a member of the EDUCAUSE Technologies, Operations and Practices Working Group since 2004.

More information about the 2011 Security Professionals Conference is available at www.educause.edu/SEC11.

Professor to receive award from American Chemical Society



Webster

Dean C. Webster, professor of coatings and polymeric materials, will receive the Roy W. Tess Award in Coatings for 2011 from the American Chemical Society. The officers and award committee of the Division of Polymeric Materials: Science and Engineering of the ACS made the award announcement.

Webster will receive the award from Todd Emrick, chair of the polymeric materials division, on Aug. 29 during the 242nd national meeting of the American Chemical Society in Denver. Webster will present an award address.

The purpose of the award is to encourage interest and progress in coatings science technology and engineering and to recognize significant contributions to the field. The award consists of a plaque and a \$3,000 cash prize. Webster noted three past recipients of the Tess Award were affiliated previously with NDSU, including CPM department chairs Zeno W. Wicks Jr. in 1988 and Frank N. Jones in 2001, and J. Edward Glass in 2005.

3 faculty receive Mid-Career Mentoring awards



Birmingham

Three mid-career faculty have been selected to receive FORWARD Mid-Career Mentoring awards. The recipients are Betsy Birmingham, associate professor of English; Cindy Urness, associate professor of architecture; and Kimberly Vonnahme, associate professor of animal sciences. Each has developed a team of colleagues working toward a focused goal.



Urness

Birmingham's mentoring group will meet several times during the academic year to share information and peer mentoring leading to promotion to full professor. Some meetings will include a guest(s) with insight into the promotion process. Group members also will receive relevant printed resources. Members of Birmingham's mentoring group are Andrew Mara, associate professor of English; Miriam Mara, associate professor of English; Amy O'Connor, associate professor of communications; Amy Rupiper Taggart, associate professor of English; and Gary Totten, associate professor of English.



Vonnahme

Vonnahme's award will support her attendance at a United States Department of Agriculture National Institute of Food and Agriculture work-

shop designed to familiarize participants with competitive grant opportunities at the National Institute of Food and Agriculture and enhance grant-writing skills. Following the workshop, Vonnahme will collaborate with her mentoring team of senior faculty to prepare grant proposals and disseminate knowledge gained at the workshop through one or more brown bag lunch/discussion groups. Vonnahme's mentoring group includes Anna T. Grazul-Bilska, professor of animal sciences; Marcia McMullen, professor of plant pathology; and Dale Redmer, professor of animal science.

Urness will use her mid-career mentoring award to fund her mentoring team's trip to western North Dakota where they will gather information about the effects of "boom and bust" economic activities in the oil-producing counties – including effects on family dynamics, housing and community vitality. The team will then explore relationships among these issues and seek research and other funding to support problem-solving efforts in that area. Other members of this mentoring group are Margaret Fitzgerald, associate professor of human development and family science; Brandy Randall, associate professor of human development and family science; and Kara Wolfe, associate professor of apparel, design and hospitality management.

The Mid-Career Mentoring Program is intended to promote the advancement of tenured faculty. The program provides funds to encourage tenured faculty to seek external funding, collaborate, create networks and gain access to administrators. Applications to the program are accepted on an ongoing basis.

More information on the application guidelines and form can be found at www.ndsu.edu/forward/home, click on "Funding Opportunities." Inquiries may be made to Charlene Wolf-Hall at charlene.hall@ndsu.edu or 1-6387 or Canan Bilen-Green at canan.bilen.green@ndsu.edu or 1-7040.

Khan appointed to associate editor and computing committee



Khan

Samee U. Khan, assistant professor in electrical and computer engineering, has been appointed associate editor of Cluster Computing. The journal presents the latest research in parallel processing, distributed computing, autonomic computing, grid computing, utility computing, cloud computing and computer communication networks. Cluster Computing is in its 14th year of existence and is published by Springer.

Khan also was appointed to the steering committee of the Institute of Electrical and Electronics Engineers Technical Area of Green Computing. The committee formed last year to promote research and education on the general topic of green computing that covers domains, such as cloud computing, utility computing, cluster computing, supercomputing and cyberinfrastructures. During its first year, the committee sponsored and promoted more than 10 conferences. This year, the committee expects to launch several new Institute of Electrical and Electronics Engineers conferences and a flagship journal.

Kari Thompson named head women's volleyball coach

Kari Thompson was named head women's volleyball coach by NDSU women's athletic director Lynn Dorn on Jan. 27.

Thompson has been the interim head coach since the Oct. 19 resignation of Erich Hinterstocker. She had a 9-2 record and led the Bison to their third straight Summit League championship and second NCAA tournament in three years. NDSU was 20-11 overall and 14-4 in the league.

"Kari's attributes of maturity and stability, and ethical and professional behavior, coupled with an orientation for a high level of achievement are behaviors we sought," Dorn said. "We look forward to Coach Thompson continuing the high expectations of the volleyball program at NDSU and are confident under her leadership that those will be met."

"I'm thrilled to continue to be a part of an institution with a rich tradition of academic and athletic excellence and a strong commitment to the volleyball program," said Thompson, who is the 11th head coach in the 46-year history of the program. "This great volleyball community combined with a great volleyball facility provides an exciting environment to showcase these athletes."

Thompson was a three-year volleyball letter-winner at Green Bay and spent one year with the Phoenix as a volunteer assistant before working at Alabama for two seasons as a graduate assistant. A native of Amherst, Wis., she began her collegiate career at Concordia-St. Paul and graduated from Green Bay with a bachelor's degree in communications and the arts.

Dean of libraries awarded funding for case study



Reid

Michele Reid, dean of libraries, and co-authors have been awarded \$50,000 to support their upcoming study, "Business Cases for New Service Development in Research Libraries," from the Council on Library and Information Resources' Digital Library Federation.

In addition to Reid, the research team includes Theodore Fons, Online Computer Library Center; Mike Furlough, Pennsylvania State University; Carol Hunter, University of North Carolina-Chapel Hill; Elizabeth Kirk, Dartmouth College; and Judy Luther, Informed Strategies.

Outcomes for the project will include a report on business planning and methods in the context of libraries, and case studies of campus publishing and research data management services. The project will be completed in late 2012.

EVENTS

History professor to present February colloquium

The history, philosophy and religious studies department's February colloquium will feature Patti Loughlin, associate professor of history at the University of Central Oklahoma. Loughlin's talk is titled "Angie Debo's Prairie City and Regional Identity in the Great Plains" and is scheduled for Feb. 18 at 3 p.m. in the Memorial Union Room of Nations. The event is open to the public.

In Prairie City (1941), a fictional city located in the northern part of Old Oklahoma near the Cherokee Outlet, historian Angie Debo tells the story of the initial development, sudden rise and eventual decline of an American farming community from the 1890s to the 1940s. Prairie City demonstrates Debo's versatility as a writer of subjects other than American Indian history. Debo's life is interwoven in this rural story.

The Debo family arrived in Oklahoma Territory by covered wagon in 1899 for the chance to farm their own land. Debo began teaching in rural schools at 16. As a result, the life of the pioneer was deeply embedded in her own life experience. The presentation connects Debo's scholarly work to her childhood days as a daughter of the prairie.

Loughlin's current project is an Angie Debo children's book – with the goal of connecting today's children to what life was like for children in the region more than 100 years ago.

Loughlin specializes in 20th century U.S. history, American Indian history and the history of the American West. She is the University of Central Oklahoma's director of the American Democracy Project, a national civic engagement initiative focused on increasing civic engagement among college students in partnership with The New York Times, and a board member of the Oklahoma Historical Society.

Loughlin's book, "Hidden Treasures of the American West: Muriel H. Wright, Angie Debo and Alice Marriott," offers a concise examination of Oklahoma historiography and the place

of women public intellectuals in shaping regional identity. It received the Outstanding Book on Oklahoma History from the Oklahoma Historical Society and the Director's Award and Finalist in Nonfiction from the Oklahoma Center for the Book in 2006. In addition, she co-wrote "Building Traditions, Educating Generations: A History of the University of Central Oklahoma" with Bob Burke as an official Oklahoma Centennial Commission project. In consultation with Nicole Willard, director of archives and special collections at UCO, Loughlin and her students conducted more than 75 oral history interviews as a central research component for the book. Questions may be directed to Dennis Cooley at 1-7038 or dennis.cooley@ndsu.edu.

Tibetan Buddhist Monks to create Mandala sand painting at NDSU

Tibetan Buddhist Monks from Drepung Loseling Monastery will construct a Mandala Sand Painting March 7-10 in the Lower Level of the NDSU Memorial Union.

From all the artistic traditions of Tantric Buddhism, painting with colored sand is one of the most unique and exquisite. Millions of grains of sand are painstakingly laid into place on a flat platform for a period of days or weeks to form the image of a mandala. To date, the monks have created mandala sand paintings in more than 100 museums, art centers and colleges and universities in the United States and Europe.

Mandala is a Sanskrit word meaning sacred cosmogram. These cosmograms can be created in various media, such as watercolor on canvas or woodcarvings. Perhaps the most spectacular and enduringly popular are those made from colored sand.

In general, all mandalas have outer, inner and secret meanings. The outer level represents the world in its divine form; the inner level represents a map by which the ordinary human mind is transformed into enlightened mind; and the secret level depicts the primordially perfect balance of the subtle energies of the body and the clear light dimension of the mind. The creation of a sand painting is said to affect purification and healing on these three levels.

The mandala sand painting begins with an opening ceremony scheduled for March 7 at 11 a.m., during which the lamas consecrate the site and call forth the forces of goodness. This is done by means of chanting, music and mantra recitation.

The lamas begin the exhibit by drawing an outline of the mandala on the wooden platform. On the following days they lay the colored sands. Each monk holds a traditional metal funnel called a chakpur while running a metal rod on its grated surface. The vibration causes the sands to flow like liquid onto the platform.

Traditionally most sand mandalas are destroyed shortly after their completion. This is done as a metaphor for the impermanence of life. The sands are swept up and placed in an urn. To fulfill the function of healing, half is distributed to the audience at the closing ceremony, while the remainder is carried to a nearby body of water where it is deposited. The waters then carry the healing blessing to the ocean, and from there it spreads throughout the world for planetary healing. The closing ceremony is scheduled for March 10 at 3 p.m. For more information and a full schedule of events, visit www.ndsu.edu/campusattractions.

Virtual Cyberinfrastructure Conference scheduled

Plans are under way for the first statewide Cyberinfrastructure Conference scheduled for March 3. Sponsored by the North Dakota Experimental Program to Stimulate Competitive Research (ND EPSCoR), the conference is for state university system campuses, tribal colleges and the K-12 community. All conference activities will be delivered via multipoint videoconferencing to participating sites.

The NDSU site for the conference will be in the Memorial Union Ballroom. Conference activities run from 8 a.m. to 4:40 p.m.

David Givers and Mark Hoffman, ND-EPSCoR project directors, are directing conference activities, which include presentations on networks, hardware and applications; advantages of cyberinfrastructure resources across disciplines and institutions; and opportunities for collaborations.

The goal of the conference is to enhance awareness of how cyberinfrastructure impacts research, teaching and service.

There is no fee to attend the event, but registration is required. Visit the conference website at ci.ndepscor.nodak.edu to learn more about the conference and to complete online registration. The registration deadline is Feb. 20.

For more information, e-mail ci.nd.epscor@gmail.com.

'Sundogs and Sunflowers' book signing scheduled for Feb. 17

Timothy J. Kloberdanz, professor emeritus of anthropology, and Troyd A. Geist, NDSU alumnus and state folklorist, will be available to sign copies of their new book, "Sundogs and Sunflowers: Folklore and Folk Art of the Northern Great Plains," Thursday, Feb. 17, from 11 a.m. to 2 p.m. in the NDSU Bookstore in the Memorial Union. Examples of North Dakota folk art also will be on display.

More than 1,000 examples of folklore and about 300 color photographs are included in the book.

"There has been a tremendous amount of interest in the book," Kloberdanz said, "and so Troyd and I are pleased to do a book signing on campus. Because of all the time we both spent at NDSU, the place is like a second home to us. We hope to see some old friends and to make some new ones, too."

A portion of the proceeds from the book sales will go toward a special scholarship fund for NDSU students.

"Sundogs and Sunflowers" is published by the North Dakota Council on the Arts. Copies of the hardbound volume will be available for sale at the NDSU Bookstore during the Feb. 17 book-signing event.

FORWARD sponsoring promotion-to-professor luncheon

The FORWARD program is sponsoring a promotion-to-professor luncheon on Tuesday, March 1, from 11:30 a.m. to 1 p.m. in the Memorial Union Arikara room. Registration is requested and can be completed at www.ndsu.edu/forward.

A panel of College Promotion, Tenure and Evaluation Committee members will discuss the promotion-to-full-professor process and share tips on preparing an application. Panelists include John Cook, industrial and manufacturing engineering; Anna Grazul-Bilska, animal science; Joel Hektner, human development and family science; and Ineke Justitz, history, philosophy and religious studies. They will discuss how to describe scholarship in different disciplines, the role mentoring plays in helping an associate professor prepare for promotion, how to determine when an associate professor is ready to apply for promotion and the professional importance of promotion to full professor. Mark Sheridan, biological sciences, and Virginia Clark Johnson, dean of the College of Human Development and Education, will facilitate the panel discussion. Questions about the promotion-to-full-professor panel series or the FORWARD program may be directed to Canan Bilen-Green at canan.bilen.green@ndsu.edu or 1-7040.

Defensive driving courses scheduled

Two defensive driving courses will be offered at NDSU this spring by the N.D. Department of Transportation. The classes are scheduled for Tuesday, March 15, from noon to 4 p.m. and Wednesday, March 16, from 8 a.m. to noon, in the Memorial Union Prairie Rose room.

Fleet Services requires individuals who operate fleet vehicles, on at least a monthly basis, to take the National Safety Council Defensive Driving Course as soon as practical after accepting employment and every four years thereafter. Training for individuals who operate fleet vehicles less than monthly is at the discretion of agency trainers or risk managers. Fleet Services also requires people who have been involved in a motor vehicle accident with a state fleet vehicle or have received a traffic citation while operating a state fleet vehicle in the past 12 months, to attend the defensive driving course within the calendar year of the accident or citation.

The University Police and Safety Office encourages people who operate state fleet vehicles less than monthly to attend the defensive driving course; however, keep in mind, priority will be given to individuals who meet the requirements above.

Contact Tammy Aronson at tammy.aronson@ndsu.edu or 1-5637, to register.

NDSU Extension Service to offer spring gardening workshop

The NDSU Extension Service has scheduled the 2011 Spring Gardening Saturday workshop for March 5 from 8:30 a.m. to 3 p.m. at Atonement Lutheran Church, 4601 South University Drive, Fargo.

Topics and speakers will include Lawn Care and Management by Randy Nelson, Clay County, Minn., Extension educator; Emerald Ash Borer by Allen Lee, urban forestry department, City of Fargo; Don't Let the Bed Bugs Bite by Janet Knodel, assistant professor, Extension entomologist; NDSU Hardy Fruits for N.D. by Kathy Wiederholt, fruit project manager, Carrington Research Extension Center; New NDSU Introductions and Other Hardy Recommended Trees for the Dakotas by keynote speaker, Dale Herman, NDSU horticulturist.

To register, call 701-241-5700 or visit the Cass County Extension website at www.ag.ndsu.edu/casscountyextension.

Registration is due by Feb. 25. The \$20 registration fee includes a box lunch. For more information, contact Todd Weinmann in the Cass County Extension Office at todd.weinmann@ndsu.edu or 241-5707.

International Writing Centers Week events scheduled

NDSU is participating in International Writing Centers Week, Feb. 13-19. The annual event is organized by the International Writing Centers Association. The celebration at NDSU includes the following events.

On Feb. 14, the Center for Writers distributed Valentines, candy and informational brochures in the lobby of the Main Library and in the Center for Writers on the lower level. Students learned about the services offered by the center. For more information, contact Mary Pull, director of the Center for Writers, at mary.pull@ndsu.edu.

The Graduate School will host a writing retreat for graduate students and faculty on Feb. 17 from 8 a.m. to 5 p.m. in the Memorial Union Meadow Lark room. Participants will experience undisturbed writing time in the company of fellow writers. Attendees are welcome to spend the entire day, a few hours or a few minutes on writing projects. Snacks will be provided. For more information, contact Karen Peirce, graduate writing coordinator, at karen.peirce@ndsu.edu.

PUBLICATIONS/PRESENTATIONS

Writing coordinator presents at rhetoric conference in Belgium



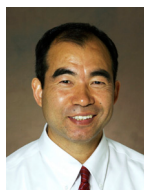
Peirce

Karen P. Peirce, graduate writing coordinator, presented the paper, "Rethinking Assumptions: Evidence of Corder's Generative Ethos Among Faculty at West Point," at the Rhetoric in Society Conference held in Antwerp, Belgium, Jan. 26-28. Her paper challenged common oversimplifications of military rhetoric and encouraged the audience to perceive military rhetoric as more complex

than commonly thought.

Two NDSU graduates also presented at the conference: Sarah Haas, who earned a bachelor's degree in English from NDSU and is a doctoral candidate in languages and social sciences at Aston University in Birmingham, England, and Jason A. Edwards, who earned a master's degree in political science from NDSU and is an assistant professor of communication studies at Bridgewater State University in Bridgewater, Mass.

Wu lab to publish a paper in Cancer Letters journal



Wu

Erxi Wu, assistant professor of pharmaceutical sciences, and Kruttika Bhat, doctoral student in the cellular and molecular program and pharmaceutical sciences, co-wrote the article, "Stem cell factor/c-kit signaling enhances invasion of pancreatic cancer cells via HIF-1alpha under normoxic condition," which will be published by Cancer Letters.

According to the authors, the stem cell factor/c-kit signaling plays an important role in invasion of c-kit-expressing tumor cells; however, the molecular mechanisms have not been studied yet. Using a pancreatic cancer model, they demonstrate that stem cell factor/c-kit binding up-regulates the expression of invasion-related genes through the accumulation of HIF-1alpha. Furthermore, the expression of HIF-1alpha induced by stem cell factor is not dependent on the oxygen level, but rather on both the PI3K/Akt and Ras/MEK/ERK signaling pathways. In conclusion, under normoxic conditions, stem cell factor/c-kit binding increases expression of HIF-1a through the PI3K/Akt and Ras/MEK/ERK pathways, and the accumulation of HIF-1alpha up-regulates expression of invasion-related genes that augment the invasiveness of pancreatic cancer.

"In this study, we present SCF/c-kit enhances the pancreatic cancer invasion via HIF-1alpha. Pancreatic cancer is a fatal cancer; therefore, our results suggest that the inhibition of both c-kit and HIF-1alpha may be an effective strategy for pancreatic cancer therapy," Wu said.

Cancer Letters is an international journal providing a forum for original and pertinent contributions in cancer research.

Faculty to publish pancreatic cancer research

Erxi Wu, assistant professor of pharmaceutical sciences, and Fengfei Wang, research associate of pharmaceutical sciences, co-wrote the article, "Relationship between neural alteration and perineural invasion in pancreatic cancer patients with hyperglycemia," which has been selected for publication by PLoS ONE online journal.

According to the authors, patients with higher levels of fasting serum glucose have higher death rates from pancreatic cancer compared to patients with lower levels of fasting serum glucose. However, the reasons have not been studied. The goal of the current study was to examine the neural alterations in pancreatic cancer patients with hyperglycemia and to identify the relationship between the neural alterations and perineural invasion (PNI).

"In this study, we present the neural alteration and extent of PNI in the primary tumors of PanCa patients in the context of glucose control. Our data suggest that hyperglycemia, a common confounding factor associated with PanCa, may contribute to PNI. We demonstrated that patients with hyperglycemia display reduced expression of MPP, and elevated expression of NGF and p75 in comparison to the patients with euglycemia. Furthermore, tumors from patients with hyperglycemia showed an elevation in the stage of PNI in comparison to tumors from the patients with euglycemia," senior author Wu said. "We have recently established a close collaboration with Dr. Qingyong Ma's laboratory at Xi'an Jiaotong University, China, in elucidating the mechanisms of the targeted therapy for pancreatic cancer, a fatal disease."

PLoS ONE, which is produced by the Public Library of Science, is described as "an international, peer-reviewed, open-access, online publication." It features reports of original research from all disciplines in science and medicine. By not excluding papers on the basis of subject area, PLoS ONE facilitates connections between papers within or between disciplines (www.plosone.org). During the past three years, Wu has published three papers in this journal (see previous news: www.ndsu.edu/news/view/article/4587).

Wu's laboratory research interests include tumor therapeutic targets, drug discovery and biomarkers. Both Wu and Wang joined NDSU in December 2008. Prior to joining NDSU, Wu and Wang worked at Harvard University for more than 10 and 8 years, respectively. Wu was a faculty member at Children's Hospital Boston, Harvard University, and Wang was a research associate at Dana-Farber Cancer Institute, Harvard University. Concurrently, Wu has been a special professor at the Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences and Peking Union Medical College, Tsinghua University, Beijing since 2007.

English professor publishes article on trans-Atlantic collaboration



Maylath

Bruce Maylath, professor of English, published an article in the December 2010 issue of *IBEE-Transactions in Professional Communication* with co-authors John Humbley of France's University of Paris-Denis Diderot, Birthe Moustén of Denmark's Aarhus University, and Sonia Vandepitte of Belgium's University College Ghent. The article, "Learning Localization through Trans-

Atlantic Collaboration: Bridging the Gap between Professions," examines what has been learned during the preceding decade in matching technical writing students in the U.S. (including NDSU) with translation students in Europe in collaborative assignments. The trans-Atlantic project's most recent collaborations were featured in the Jan. 26 issue of *It's Happening at State* in an article titled "NDSU initiates multilateral international collaboration."

Rupiper Taggart publishes article on learning factors



Rupiper Taggart

Amy Rupiper Taggart, associate professor of English and director of first-year writing, published an article in the *International Journal for the Scholarship of Teaching and Learning* titled "What's Stalling Learning? Using a Formative Assessment Tool to Address Critical Incidents in Class." She conducted the research and collaborated on the article with H. Brooke Hessler, professor of English at Oklahoma City University.

The article reports on the use of Stephen Brookfield's formative assessment tool, the "Critical Incident Questionnaire" (CIQ), to help students and teachers identify and discuss key factors affecting learning. Rupiper Taggart and Hessler offer insight into two major areas: testing and adapting the existing tool to improve teaching and learning and identifying moments of potentially productive tension between the learner and the learning process. Their research questions were "Based on insights emerging from regular use of the CIQ, how might the tool be better worded to encourage productive student reflection?" and "What common stasis points do students identify when they reflect on their learning in the weekly CIQ?" The research was conducted within the context of a longitudinal, cross-institutional study of reflective practices in writing courses. Responses indicated a tendency to report challenges related to the pedagogical approaches of the class more than challenges concerning the understanding of course content. The study yields insights into the use of the CIQ itself and into the kinds of "critical incidents" students considered most noteworthy.

The fifth anniversary issue of *International Journal for the Scholarship of Teaching and Learning* is available at academics.georgiasouthern.edu/ijstotl/v5n1.html.

English professors publish book



Sullivan

Dale Sullivan and Bruce Maylath, both professors of English, have published the anthology, "Revisiting the Past through Rhetorics of Memory and Amnesia: Selected Papers from the 50th Meeting of the Linguistic Circle of Manitoba and North Dakota." Their co-editor was Russel Hirst of the University of Tennessee at Knoxville.



Maylath

Assembled from coast to coast across the U.S. and Canada, the 21 contributors demonstrate how several rhetorics at once are often at play, from Wallace Stegner's fiction to the architecture of urban Toronto, the U.S. Air Force Memorial in Arlington, Va., and even in rural cemeteries. Their chapters investigate how memories are shaped by rhetorics crafted by people who want audiences to remember events in specific ways.

From the pivotal battle between Americans and British and their Loyalist allies during the American Revolution to North America's First Nations conflicts with the white mainstream to current memories and rhetoric about the recent war in Iraq, the authors examine the ways in which rhetoric acts as a catalyst not only for cultural memory but also cultural amnesia.

The book's 20 chapters grew out of a conference with the same theme, hosted by NDSU in 2007. The conference returns to NDSU this fall, with the theme "Language and Power," for the 54th meeting of the newly renamed Language and Culture Circle of Manitoba and North Dakota. Participants from across the disciplines are invited to attend. Conference queries should be directed to Maylath at bruce.maylath@ndsu.edu.

The book is available through Amazon.com or Cambridge Scholars Press. A full description of the book and links for ordering copies are found at www.c-s-p.org/Elyers/Revisiting-the-Past-through-Rhetorics-of-Memory-and-Amnesia--Selected-Papers-from-the-50th-Meeting-o1-4438-2555-7.htm.

Faculty presents and publishes communication research



Crisp Crawford

Elizabeth Crisp Crawford, assistant professor of communication, co-wrote the article, "Social Identity and Convergence: News Faculty and Student Perspectives on Web, Print, and Broadcast Skills," with Glenn Hubbard, assistant professor of communication at East Carolina University, Greenville, and Vincent Filak, assistant professor of journalism at the University of Wisconsin-Oshkosh. Electronic News, an American educational journalism and mass communication journal, accepted the article for publication in March.

Crawford also had a competitive paper accepted for the Broadcast Education Association's national conference in Las Vegas. The paper titled, "Who's really converging, anyway? A survey of broadcast and print journalism student and faculty attitudes on cross-platform journalism and university education," focuses on the group psychology of convergence and the necessity of converged media education in the new media age. The paper also was co-written with Hubbard.

Wu to publish in Journal of Biomedical Informatics



Wu

Erxi Wu, assistant professor of pharmaceutical sciences, co-wrote an article, "Inferring cell cycle feedback regulation from gene expression data," that will be published in the Journal of Biomedical Informatics.

According to the authors, feedback control is an important regulatory process in biological systems, which confers robustness against external and internal disturbances. Genes involved in feedback structures are therefore likely to have a major role in regulating cellular processes. In this study, they rely on a dynamic Bayesian network approach to identify feedback loops in cell cycle regulation. They analyzed the transcriptional profile of the cell cycle in HeLa cancer cells and identified a feedback loop composed of 10 genes. In silico analyses showed that these genes hold important roles in system's dynamics. The results of published experimental assays confirmed the central role of eight of the identified feedback loop genes in cell cycle regulation.

"We provide a novel approach to identify critical genes for the dynamics of biological processes. This may lead to the identification of therapeutic targets in diseases that involve perturbations of these dynamics," Wu said. "This work was led by a collaborator, Dr. Marco F. Ramoni, associate professor in the Children's Hospital Informatics Program and director of Biomedical Cybernetics Laboratory, Harvard Medical School."

The Journal of Biomedical Informatics (formerly Computers and Biomedical Research) has been redesigned to reflect a commitment to high-quality original research papers and reviews in the area of biomedical informatics. Although published articles are motivated by applications in the biomedical sciences (for example, clinical medicine, health care, population health, imaging and bioinformatics), the journal emphasizes reports of new methodologies and techniques that have general applicability and that form the basis for the evolving science of biomedical informatics.

Wu lab is interested in tumor therapeutic targets, signaling pathways, drug discovery and biomarkers. Wu lab has had a close and long collaboration with the Ramoni lab at Harvard Medical School.

Transportation and logistics graduate students present

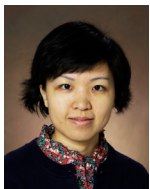
Two NDSU transportation and logistics doctoral students presented papers at the Institute for Operations Research and the Management Sciences Simulation Conference in Austin, Texas, in November.

Jeelong Peter Chen presented the paper, "Collaborative Transportation Management in the Supply Chain: Shipper and Carrier Perspectives." It is unique because it presents information from the carrier's perspective. The paper was co-written by Joseph Szmerekovsky, associate professor of management at NDSU.

Sumadhur Shakya presented the paper, "Valuing Pricing of Genetically Modified Traits Using Monte-Carlo Simulation: A Real Option Approach." The Monte-Carlo approach has the advantage of providing full distribution of values of outcome instead of presenting one of many scenarios. The paper was co-written by researcher Bruce Dahl and professor William Wilson, both from NDSU's Department of Agribusiness and Applied Economics.

In addition, Nimish Dharmadhikari attended the Railroad Environmental Conference 2010 in October at the University of Illinois at Urbana-Champaign. The conference focused on factors relating to railroads, such as pollution prevention, energy, emissions and air quality, and environmental liability. Dharmadhikari will use this information in his research.

Faculty paper accepted to Review of Business Information Systems



Zhang

Limin Zhang, assistant professor of management information systems, has been notified her co-authored manuscript, "Exploratory Competitive Intelligence Through Task Complexity Analysis," has been accepted for publication in *Review of Business Information Systems*. According to Cabell Publishing, the journal is blind reviewed with an acceptance rate of 11 to 20 percent.

In the manuscript, Zhang explores how competitive intelligence is located on the Internet. Without proper tools or expertise, locating business relations information on the Internet can be tedious and time-consuming for end-users. In the paper, Zhang and co-authors examine the nature of competitive intelligence tasks, classify and decompose them based on a task complexity theory and propose norms for a context-based approach to retrieve competitive intelligence data. They developed a metasearch engine called "Competitive Intelligence Task Analysis and Retrieval" to demonstrate the feasibility of the proposed approach. The study provides a framework to further explore the relationships among competitive intelligence tasks, interactive search and context-based search systems design.

HD&E faculty publish and present

Several College of Human Development and Education faculty members recently gave presentations and had research published.

Anita Welch, assistant professor in the School of Education, was appointed to the National Marketing and Member Benefits Committee of Phi Kappa Phi. Welch also was the keynote speaker at the third annual Undergraduate Research Conference at the University of Louisiana, Lafayette. Her presentation was titled "Examining the Past to Prepare for the Future: Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics." She also was notified her book chapter, "Robotics Competitions: More Than Just Robots," will be published in "Robots in K-12 Education: A New Technology for Learning." Mary Lou Ewald, a doctoral candidate from Auburn University in Alabama, co-wrote the chapter.

Christi McGeorge, assistant professor, and Tom Carlson, associate professor, both in the human development and family science department, presented two papers, "The role of social justice mentoring in family therapy training" and "Preparing heterosexual students to become LGB affirmative therapists: a three step training model," at the National Council on Family Relations annual conference. McGeorge, Carlson and alumna Amy Anderson also presented "The importance of spirituality in family therapy: A comparative study" at the conference.

Abby Gold, assistant professor of health, nutrition, and exercise sciences, and Deb Gebeke, assistant director of family and consumer sciences, along with Extension faculty from four other North Central Region states had a proposal accepted for the National Institute of Food and Agriculture's, Agriculture and Food Research Initiative. The total project was funded for \$5 million during five years. The project focuses on community coaching to develop leadership around early childhood obesity prevention. The project seeks to evaluate the community development and leadership approach. Two North Dakota communities will be selected to participate in this program.

Chris Ray, assistant professor in the School of Education, presented the paper, "Perceptions of College Faculty Concerning the Role of Assessment in Higher Education," at the Association for the Study of Higher Education conference. The paper presented results from a study exploring how faculty members at two public research institutions perceive the purpose of assessment in terms of improvement, accountability or neither at the course, program and institutional levels. The study identified three distinct views of student learning assessment, and implications for practitioners hoping to increase faculty involvement in the assessment process.

Brandy Randall, associate professor of human development and family science, was invited to serve as a consulting editor for the journal, *Developmental Psychology*, published by the American Psychological Association. She also had her article, "Characteristics and Perceptions of 4-H Participants: Gender and Age Differences Across Adolescence," accepted for publication in the *Journal of Extension*. Karin Bartoszuk, a former NDSU faculty member now at East Tennessee State University, also had an article accepted for publication.

SHORTS & 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.

Support Services Manager/#00018987

Dining Services
\$40,000
Feb. 15

Research Specialist

Plant Sciences
Competitive and commensurate w/experience
Feb. 15

Food Technologist

Technician/#00018693
Plant Sciences
\$28,000+/year
Feb. 15

CBRP Office Manager (Internal search-NDSU employees only)

Center for Biopharmaceutical Research and Production
\$38,000+/year
Open until filled

College Liaison/#00020541

Registration and Records
\$30,000+/year
Feb. 24

Irrigation Research Specialist/ #00026216

Williston Research Extension Center
\$35,000+/year
March 1

Agricultural Research Technician – Williston, N.D.

Williston Research Extension Center
Open until filled
\$28,000+/year

Reference Associate/#00022751

Library
\$29,500+/year
Feb. 18

Reserve/Evening Supervisor/ #00018463

Library
\$29,500+/year
Feb. 25

Nutrition Education Assistant, FNP (Family Nutrition Program) – Sioux County

Extension Food and Nutrition
\$25,900+/year
March 11

Ag Service Center Shop Foreman/ #00020247

Admin Facilities
Commensurate w/experience
Feb. 22

Custodian (four positions; variable hours)

Facilities Management
\$19,760+/year
Feb. 23

NDW-R forms due for 2011

Employees who are Minnesota residents and have Minnesota state income tax withheld from paychecks must complete a new NDW-R form for 2011 and submit it to the Human Resources and Payroll Office by Feb. 28. The form needs to be filled out every year to continue having exemption from North Dakota withholding. Employees who do not complete the form will have North Dakota state income tax withheld from their paychecks beginning March 15.

On the NDW-R form, the HR/Payroll office will fill out the section titled, "Employer Information." Remember to sign and date the form at the bottom.

The form can be found on the N.D. Office of State Tax Commissioner website at www.nd.gov/tax/indwithhold/forms.

It also can be found on the HR/Payroll office website at www.ndsu.edu/hr/forms or in the HR/Payroll office, SGC 102.

Policy Updates

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

Policy 122: Payroll Checks – Distribution

Change made to language in item 2. Items 2.1 and 3 removed entirely because direct deposit advice slips will no longer be printed.

Policy 335: Code of Academic Responsibility and Conduct

Changes, additions and updates made to policy including specific procedures, definitions and examples.

Policy 509: Electronic Financial Transaction Policy

Adds requirements for vendors using campus facilities for business to ensure they follow applicable payment card industry data security and guidelines in credit card transactions.

Policy 713.1: Litigation Hold Policy

A new policy that provides procedures for the preservation of documents, electronic information and other material in cases of litigation hold.

Policy 812: Allowable Cost Policies – Miscellaneous

Addition of #13 – Office Supplies.

Policy 821: EDDORT REPORTING/ Personnel Activity Confirmation

Changes in wording to clarify and changes to title.

CALENDAR

FEBRUARY

15 Science, Religion and Lunch Seminar – “Truth, Pseudotruth and Why Creationism is a Bad Example for Students,” Davis Cope, noon, Memorial Union Meadow Lark. Free and open to the public.

16 YMCA of NDSU Brown Bag – “Love and Law: Interracial Relationships in U.S. History,” Larry Peterson, professor of history, philosophy and religious studies, noon to 1 p.m., Memorial Union, Arikara room. Co-sponsored by Equity, Diversity and Global Outreach.

16 Sexual Assault Prevention Program – “Responding to Disclosure of Sexual Assault – A Training for Faculty, Staff and Students,” noon to 1 p.m., Memorial Union Hidatsa room. RSVP to sarah.dodd@ndsu.edu.

17 International Writing Centers Week event – Graduate School writing retreat for graduate students and faculty, 8 a.m. to 5 p.m., Memorial Union Meadow Lark room. For more information, contact Karen Peirce, graduate writing coordinator, karen.peirce@ndsu.edu.

18 Animal Sciences Graduate Seminar – “Dried Distillers Grains with Solubles Supplementation and Frequency in Beef Cow-Calf Production Schemes,” Sharnae Klein, graduate research assistant in animal sciences, 3 p.m., Hultz Hall room 104.

18 Andrew Lipka Live in Concert – 7:30 p.m., Askanase Auditorium. Lipka is an award-winning Broadway composer/lyricist.

21 Presidents’ Day holiday – University closed.

23 LIVE REAL Mentor Training – 4 p.m. to 5 p.m., Memorial Union Arikara room.

23 YMCA of NDSU Brown Bag – “Healthy Gone Bad,” Tara Roberts and Janet Brown from the Wallman Wellness Center and Marlys Borkhuis from the NDSU Counseling Center, noon to 1 p.m., Memorial Union Arikara room.

23 LIVE Real Mentor training session – 4 p.m. to 5 p.m., Memorial Union Arikara room. NDSU students, staff and faculty are welcome to attend. Sponsored by NDSU’s President’s Council on Alcohol and Other Drugs. To schedule an individual training session for your department or student organization, contact Erika Beseler Thompson at 1-5478 or erika.beseler@ndsu.edu.

23-27 Little Country Theatre presents “Oklahoma” – Wednesday-Saturday at 7:30 p.m. and Sunday at 2 p.m., Festival Concert Hall. Visit www.ndsu.edu/finearts for more information.

24 Gear Up for Grants Seminars – “Effort Reporting; Compliance is Crucial!” Grant and contract accounting staff, 3 p.m. to 4:30 p.m., Memorial Union Meadowlark room. Sponsored by the Office of Research, Creative Activities and Technology Transfer. All faculty, staff and students welcome to attend. E-mail kay.sizer@ndsu.edu to register.

24-29 NDSU High School Juried Show – 10 a.m. to 5 p.m., Renaissance Gallery. Free and open to the public.

24 Faculty Recital: Matthew Patnode, saxophone – 7:30 p.m., Beckwith Recital Hall.

25 Biological Sciences Department Seminar – “Using Agricultural Residues in a Hybrid Energy System: The Continuing Saga,” James Barbour, Biomass Gasification Project, University of Minnesota, Morris, 3 p.m., Van Es 101.

25 Animal Sciences Graduate Seminar – “The relationship of feedlot and pre-harvest beef cattle temperament measurements with beef carcass quality and tenderness,” James Magolski, graduate research assistant in animal sciences, 3 p.m., Hultz Hall room 104.

28 University Band Concert – 7:30 p.m., Festival Concert Hall. Admission is \$5 for adults and \$2 for students and seniors.

28 Safe Zone Gender Identity Training (Level II) – 2 p.m. to 3:30 p.m., Memorial Union Room of Nations.

28 FORWARD Advocates and Allies Follow-up Discussions – 3:30 p.m. to 5 p.m., FLC 316E.

MORE CAMPUS EVENTS www.ndsu.edu/eventcalendar

NEXT ISSUE Publication date: Monday, February 28 | Submissions due: February 23

SEND SUBMISSIONS TO THE EDITOR Linsey Davis | ndsu.itshappening@ndsu.edu
Library 16, NDSU Dept 6020, PO Box 6050, Fargo, ND 58108-6050 | Voice: 231-8326 | Fax: 231-8969

TO RECEIVE E-MAIL NOTIFICATION WHEN AN ISSUE IS POSTED ONLINE (NON-NDSU EMPLOYEES) | char.goodyear@ndsu.edu

North Dakota State University does not discriminate on the basis of age, color, disability, gender identity, 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.

NDSU