IT'S HAPPENING AT STATE

June 18, 2008

Chapman leads 'Conversations Across the Land' tour



President Joseph A. Chapman led a Conversations Across the Land tour throughout southeastern North Dakota on June 10, visiting alumni, friends and community members in Valley City, Oakes, Rutland and the Bagg Bonanza Historical Farm near Mooreton.

Fifty-two administrators traveled to the gatherings to meet alumni and friends and tour locations such as the Irrigation Research Site near Oakes, and a small business near Cayuga, Dakota Micro Inc.

President Chapman gives remarks at Bagg Bonanza Historical Farm.

President Chapman spoke at the morning coffee, at lunch and at dinner.

"We cannot be the successful land grant research university North Dakota needs without you," President Chapman told audiences in the three towns.

Men's basketball coach Saul Phillips also spoke at noon in Rutland, telling the audience that all of us are North Dakota and we can continue to succeed and prosper. Football coach Craig Bohl spoke at the dinner. Other coaches also joined the tour, including women's basketball coach Carolyn DeHoff, volleyball coach Erich Hinterstocker, wrestling coach Bucky Maughan, soccer coach Pete Cuadrado, track coaches Ryun Godfrey and Don Larson.



Left to right: Diane Smith, President Chapman, Pam Gulleson, Joe Heilman, Carolyn Christenson and D.C. Coston.

NDSU breaks ground for agriculture research facilities



Left to right: President Chapman, Gov. John Hoeven, Ken Grafton, D.C. Coston, Jerry Effertz, Jim Broten and Tom Archbold.

NDSU officials, North Dakota's governor and other dignitaries thrust their shovels into piles of soil in wheelbarrows May 30, symbolically breaking ground for two agriculture research facilities.

The Beef Cattle Research Center, which will be at 19th Avenue North and Interstate 29, will allow NDSU to expand its research on nutrition, physiology, animal health, genetics, meat science, nutrition management, *cont.* **NDSU Bookstore to extend hours** During the weeks of orientation

for first-year students, the NDSU Bookstore will have extended hours. On Monday, June 23, through Thursday, June 26, and Tuesday, July 8, through Friday, July 11, the store will be open until 6 p.m. There will be 50 percent off of clothing clearance items, art and supply clearance items.

NEXT ISSUE

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SEND SUBMISSIONS TO THE EDITOR

Sadie Anderson sadie.anderson@ndsu.edu Old Main 204 Voice: 231-8326 Fax: 231-1989 www.ndsu.edu/news

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char.goodyear@ndsu.edu

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food safety and economics. It will be one of only four research centers in North America with equipment to measure cattle's individual feed intake, which will help identify ways to cut feed costs, and improve feed efficiency and profitability.

The Greenhouse Facility, which will be at 15th Avenue and 18th Street North, will facilitate innovative research leading to the development of higher-yielding and higher-quality crops, which benefit producers and businesses through increased productivity and sales.

NDSU President Joseph A. Chapman said both facilities will have major and far-reaching impacts on the research the university does in livestock and plant science.

D.C. Coston, vice president for Agriculture and University Extension, said the two new facilities will allow the university's talented faculty and staff to do the work they've done so well, but do it faster and better.

Jerry Effertz, State Board of Agricultural Research and Education chairman, said these facilities will enable NDSU to maintain the highest levels of research in food production, which is critical to the entire world.

The North Dakota Legislature has provided \$9 million for the Greenhouse Facility and \$1 million in spending authority for the Beef Cattle Research Center. NDSU also has raised money for the facilities locally, including \$2.5 million for the Greenhouse Facility.

Gov. John Hoeven praised NDSU's efforts to work with commodity groups and others in the agriculture industry to raise money for the new facilities. "That's the kind of critical mass we need statewide," he said.

The groundbreaking ceremonies launched the construction of the initial phase of both projects. NDSU will need additional funding to complete them.

NDSU completes NCAA self-study

North Dakota State University has taken a significant step to becoming an active member of NCAA Division I.

NDSU President Joseph A. Chapman was notified by the NCAA Division I Committee on Athletics Certification that the university has successfully completed the athletics selfstudy process after review of all written materials. According to the notification letter from Nathan O. Hatch, committee chair, NDSU was certified with no conditions.

"I am delighted our self-study report was accepted with no requirements to reassess specific areas. Our campus selfstudy group did a tremendous job, and I am proud of the team's efforts," Chapman said. "This was a critical step in our university's important move to Division I."

The certification program's purpose was to ensure integrity in the institution's athletics' operations. Initiated in August 2006, the year-long, campuswide effort studied the areas of academic integrity, governance, rules compliance, equity, diversity and student athlete welfare.

Prakash Mathew, vice president for student affairs and self-study committee chair, said, "Naturally, I am elated. This is a true reflection of our athletic program. I always believed that NDSU had an impressive nationally recognized athletic program, but when the NCAA acknowledged this fact, it has a great impact."

The recommendation from the Committee on Athletics Certification was forwarded to the NCAA Division I Membership Subcommittee as it considers NDSU's election into active Division I membership. The recommendation to be advanced to active status also will include a full review of the institution's final annual report and strategic plan.

Following the review of the annual report and strategic plan in mid-June, the subcommittee will forward its recommendation to the NCAA Management Council to elect institutions to active Division I status in 2008-09.

NDSU is in the final year of the reclassification from Division II to Division I. The university is a member of The Summit League, the Gateway Football Conference and the Western Wrestling Conference.

Nearly 90 individuals, both internal and external to the university, were actively engaged in the self-study. In addition, subcommittee members consulted with several groups throughout the year, including the NDSU Alumni Association, NDSU Development Foundation, President's Cabinet, President's Council, Staff Senate, Student-Athlete Advisory Committee, Student Government, Team Makers, University Athletic Committee and University Senate.

NDSU Extension service helps launch starter flock program

The North Dakota Lamb and Wool Producers Association has launched the perpetual starter flock program to help youth get into the sheep and wool industries. The program was created with assistance from the NDSU Extension Service and is open to North Dakota youth, ages 10 to 18.

Each youth selected for the program will receive 10 ewes from the association. The animals will be purchased at the association-sponsored ewe sale at the Bowman Livestock Market in September.

"The perpetual starter flock program is an excellent example of how the North Dakota Lamb and Wool Producers Association and NDSU Extension Service are working together to revitalize the state's sheep industry," says Justin Luther, NDSU Extension sheep specialist.

Also, the association will provide program participants with a list of producers who have volunteered to supply a ram. The participants will be responsible for arranging with the producer to obtain the ram.

"We hope this will encourage young people to become involved in an industry that is growing in numbers," says Lyle Warner, North Dakota Lamb and Wool Producers Association president. "The growth and survival of the sheep industry, as any industry, is dependent on getting new people involved in the business."

In an article in the May 18 New York Times, Luther told reporter Susan Saulny, "We're looking for enthusiasm and dedication. There aren't many programs in place to help young people get started in the sheep business."

"This is a way for a young producer to get into the sheep business with a 'sweat equity' investment until they gain some experience and have an opportunity to realize a return," says Curt Stanley, a North Dakota Lamb and Wool Producer Association board member and North Dakota sheep producer.

For more information about the program or to obtain an application form, contact Luther at 1-7993 or *justin.luther@ndsu.edu*.

Information about the starter flock program also was published in the Chicago Tribune.

Transportation Institute hosts statewide discussion on mobility and transportation

NDSU's Upper Great Plains Transportation Institute has been hosting a statewide discussion on the mobility needs of North Dakota and the state of its transportation infrastructure.

Since March, the Institute has hosted regional workshops in Williston, Dickinson, Minot, Bismarck, Devils Lake, Jamestown, Grand Forks and Fargo. A statewide conference to summarize input and tap input from state leaders was held in Mandan May 1. Nearly 600 people attended the sessions. A summary of the discussions will be presented to the North Dakota Legislature's Interim Transportation Committee at a meeting in Fargo on June 19.

"People expect a lot out of North Dakota's transportation system," says Jon Mielke, an institute researcher and one of the organizers of the sessions. "Demands on that system, both for personal mobility and for economic activity are growing. At the same time, costs to maintain and improve the system are escalating and revenues are not keeping pace."

At the statewide meeting May 1, institute researcher Alan Dybing presented results of a study that showed the annual roadway and bridge funding needs for North Dakota are at nearly \$540 million. The Federal Highway Trust Fund is expected to be depleted next year with the projected loss of \$70 million in federal highway funding as a consequence.

Complicating the problem has been inflation in the cost of building materials and fuel. Representatives from the city, township, county and state levels outlined how budgets are being squeezed. Mielke notes that the producer price index increased by 32 percent from 2001 to 2005. Revenue for the state highway system increased by only 18 percent during that time. From 2001 to 2008, the North Dakota Department of Transportation experienced construction cost increases of approximately 60 percent.

"The result of that reduced buying power is deferred maintenance," Mielke says. Deferring maintenance on the state's road network is expensive because pavement deterioration is an accelerating process. Ride quality on new pavement declines by about 40 percent over the first 20 years of its life. After that, pavement deteriorates much more rapidly. That means a road rehabilitation project that occurs when pavement is 20 years old will cost 400 percent to 500 percent more if the project is delayed 7 to 8 years.

Francis Ziegler, director of the North Dakota Department of Transportation, said the state's highway system is in a preservation mode and that 39 percent of the asphalt roadways are considered mediocre. He noted that demands on the road system are increasing. Manufacturing, energy production and crop production have all increased substantially in the state with a corresponding need for freight mobility.

Mark Johnson, executive director of the North Dakota Association of Counties says with about half of all county roads in the state in fair condition and about one-third considered poor, delay is not an option. "We need to invest in our road network and now is the time to do it. We no longer have the comfort of expecting or waiting for federal funds," he says.

Expenses that are escalating faster than revenues are also a problem for the state's transit agencies. "We need to look at the human factors involved with these issues," Pat Hansen said. She is program director at South Central Adult Services, which provides transit services for the Valley City area.

"Roads and bridges are important, but we're transporting people, sometimes up to 300 miles round trip, for very important medical services," Hansen says. "Mobility is not just about cost, it's about quality of life. I appreciated that I was able to make that point."

Hansen says the meetings performed the important task of providing the same information to transit operators, transportation officials and state and local decision makers across the state. "I have a much better idea of what transportation issues are facing the state and I can see the legislative issues and challenges that we're facing."

Institute director Gene Griffin told the group that several strategies could be employed to address the situation.

"We will need to continue to work smarter and make better use of our scarce resources," he said. "That ability is currently limited by technology, institutional barriers and collective and individual pride. We can make great strides if we can overcome those barriers or at least push them back."

Griffin also noted that decision makers will need to set clear priorities that take into account transportation needs. "This rationalization requires political will," he said. "But the result will be a transportation system that meets the state's fundamental needs and a set of minimal demands."

"With innovation and a rationalized approach to demands within the state will come a need for additional funds," Griffin said. "There is a growing recognition among federal, state and local agencies as well as within the private sector, that maintaining and enhancing our transportation system needs to be a priority.

'Children of War' exhibits on display in Memorial Union Art Gallery

The artwork of Betty LaDuke will be on display at the NDSU Memorial Union Art Gallery through Aug. 22. LaDuke is an internationally known photographer, painter and illustrator who has spent the past 50 years documenting and drawing inspiration from children and families she has encountered throughout the world.

Her work depicts children's strengths and resilience and also emphasizes human emotions and characteristics, furthering the understanding of many different cultures. She says the earth is our common home, and local and global future depends on the well-being of all children of the world.

The two exhibits, "Children of the World" and "Children of the World II," provide an opportunity for cultural and aesthetic comparisons across the boundaries of time and continents. The multimedia exhibit of photographs, drawings and paintings weaves through the artist's life and provides a unique opportunity to explore the artist's creative process of translating from the literal, camera captured moment and onsite sketches emphasizing select details of people and events into mythical, aesthetic renderings with paint on canvas. The images encompass some of the most significant social and cultural transitions of the world community for the past halfcentury and also show how children are loved, nurtured and conditioned to grow in diverse circumstances.

The Memorial Union Art Gallery is located on the NDSU campus at 1401 Administration Ave. in room 258.

EPSCoR seeking start-up fund proposals

Department chairs, deans recruiting department chair positions and directors of North Dakota EPSCoR-designated State Research Initiatives are invited to submit proposals requesting start-up funds for tenure-track research faculty to be hired during fiscal year 2010.

The major goal of this program is to staff research-intensive universities with new faculty who will be nationally competitive for grants from federal agency research programs in science, engineering and mathematics.

Electronic abstracts are due at noon, July 17, to the campus co-project director. Include the submitter's name, department, phone number, number of positions requested, amount of the request and a brief description of the desired qualifications of a successful candidate. Abstracts will aid in the selection of the external review panel, but are not required and will not be part of the evaluation process.

Complete proposals are due no later than noon, Aug. 19. Interviews with a review committee will be held Sept. 29 and 30 on the NDSU campus. Complete submission information can be found at *www.ndepscor.nodak.edu/rfps/index.htm*.

For more information, contact David R. Givers at 1-7516 or *david.givers@ndsu.edu*.

PEOPLE

Burghaus receives CAREER Award



Burghaus

Uwe Burghaus, assistant professor of chemistry and molecular biology, received a \$426,000 CAREER Award from the National Science Foundation.

The award will support Burghaus' research to characterize the absorption dynamics of small molecules (carbon monoxide, dioxide and oxygen) on copper and gold model array catalysts, which

are pertinent for the petroleum industry and the cleaning of exhaust pollution. With molecular beam scattering, the research will clarify the catalytic activity and particle size, as well as support effects, in the carbon monoxide oxidation reaction mechanism. According to Burghaus, the reaction is one of the most important prototypes of biomolecular surface reactions. The knowledge gained will promote catalyst improvements.

His educational plans include the development of a hands-on course that will be taught at an American Indian community college as well as developing the physical chemistry laboratory course to include a cutting edge research topic in nanoscience.

Some of the experiments will be conducted as part of a physical chemistry laboratory class providing an introduction about nanoscience and kinetics to the students. A related off-campus, hands-on class also will be taught at American Indian community colleges as part of the Sunday Academy, an American Indian teaching project organized by Eakalak Khan, NDSU associate professor of civil engineering.

The foundation's Faculty Early Career Development Program recognizes and supports the early career development of faculty who show remarkable potential to become academic leaders. CAREER awardees are selected on the basis of creative, integrative and effective research and education development plans.

For more information about Burghaus' research interests, go to www.ndsu.edu/chemistry/people/faculty/burghaus.html.

NDSU professor's mummy research part of National Geographic Explorer



Human remains yield secrets. And some of those secrets unearthed by Heather Gill-Robinson, assistant professor of anthropology at NDSU, are part of "Mystery of the Mummy Murders" on the television program "Explorer" which aired on the National Geographic Channel in the United States on June 4. Gill-Robinson specializes in research on 2,000-year-old peat bog mummies in Europe,

preserved from the Iron Age with amazing detail.

Gill-Robinson previously made a significant discovery in Germany regarding a bog body once known as Windeby Girl. After further research using tools such as 3-D imaging and trace element analysis, Gill-Robinson discovered that Windeby Girl was most likely a young man.

Gill-Robinson shared many of her research findings with the crew filming the Wednesday episode of Explorer. Additional information and a video clip of "Mystery of the Mummy Murders" are available at *http://channel.nationalgeographic. com/series/explorer/3110/Overview#tab-Vid.*

Additional photos are found at http://channel.nationalgeographic.com/series/explorer/3110/Overview#tab-Photos/6.

The NDSU professor's research also has appeared in "From the Depths of the Bog" in the May 2008 issue of National Geographic World magazine, German edition. In the science magazine for children, Gill-Robinson shares age-appropriate insights about her research involving bog bodies in Germany.

The National Geographic World article notes that bog bodies provide historical clues to how people lived. "I like puzzles and the bog bodies are puzzles from the past," says Gill-Robinson in the article. Photos of numerous anthropological findings and information on how bogs form are included in the magazine. "I think it's another way to help inspire scientific curiosity in young people who may have an interest in physical anthropology," says Gill-Robinson, who frequently speaks to community groups about her research findings.

Gill-Robinson also presented at the 77th annual meeting of the Paleopathology Association and at the American Association of Physical Anthropology in Columbus, Ohio, earlier this year. Her presentation on the evidence-based approach in mummy studies was co-written with Frank Rühli of the University of Zurich. Gill-Robinson and NDSU student James Schanandore, a McNair scholar, delivered a poster presentation on the curvature of the spine in an Iron Age bog body and a podium presentation relating to age estimation in an Iron Age bog body. The image analysis was completed in the NDSU Biological Anthropology Research Laboratory.

The water and other substances in peat bogs create a natural preservative for the bodies found in them, though Gill-Robinson says researchers are still trying to determine why. The lack of oxygen, antimicrobial action and the sphagnum found in bogs seem to conspire to preserve the bodies tossed into them thousands of years ago.

Gill-Robinson's areas of research interest have focused on a collection of several bodies (six mummies and one skeleton) from peat bogs in northern Germany. Her research was previously cited in the article, "Rehabilitation of a Moorland Corpse," in Abenteuer Archaeologie, a German popular press archaeology magazine, and in the article "Tales from the Bog" in the September 2007 issue of National Geographic magazine.

Science and mathematics faculty receive high honors



Gordon Bierwagen, professor of coatings and polymeric materials, received the Waldron Award for Excellence in Research. He was honored during the 11th annual "NDSU Celebration of Faculty Excellence." The NDSU Development Foundation sponsors the award, which was established to recognize outstanding faculty research.

Bierwagen



coatings technology, most recently in the discovery of magnesium-rich primer systems for the corrosion protection of aluminum; coatings education, especially as a faculty member and chair of the department at NDSU; and service to the industry, exemplified in his role as editor of Progress in Organic Coatings," wrote Dean Webster, tenured professor of coatings and polymeric materials, in a letter of nomination.

'Gordon has contributed to coatings research

for almost 30 years and has gained a prominent position in the community of coatings science,"

wrote Stuart Croll, associate professor of coatings

and polymeric materials. "Gordon has published

approximately 90 peer-reviewed publications. He has given a large number of invited and plenary

lectures at international conferences on coatings

'Gordon has made significant contributions to

Juell



and corrosion."

Bierwagen received the 2007 Matiello Lecture Award, 2005-06 College of Science and Mathematics Researcher of the Year and the Roon Foundation Award. He earned his bachelor's degree at Valparaiso University, Valparaiso, Ind., and his doctorate in physical chemistry from Iowa State University, Ames.

Perrizo

Gary K. Clambey, associate professor of biological sciences, received the College of Science and Mathematics 2008 Teaching Award.



Reed

As a faculty member for 34 years, Clambey has taught more than 9,000 students in the classroom and served more than 250 graduate students by participating on advisory committees.

Clambey strives to keep his course content up to date and his teaching methods current. "The hall-

mark of Gary's teaching, however, is the organization and clarity of his presentations," said professors Malcolm Butler, Theodore Esslinger and Mark Sheridan in a letter of nomination. "Anyone who has attended one of Gary's lectures cannot help but be struck by his engaging manner and the ease of understanding of conveyed concepts."

Beyond NDSU, Clambey has been an integral part of science teacher in-service training for 17 years. Over the years, 304 teachers participated in these field courses and took their experiences back to their home schools. He also has made more than 125 invited presentations to numerous classes and various organizations around the region. Clambey also received the Robert Odney Award for Excellence in Teaching in 1983 and the Blue Key Distinguished Educator Award in 2004.

Paul Juell, associate professor and associate chair of computer science, was honored posthumously with the College of Science and Mathematics 2008 Mentoring Award. In his 25 years at NDSU, Juell gathered students and guided them to graduation. In those 25 years, he was the chair of graduate supervisory committees for eight doctoral and 119 master's degree candidates.

"It is a prodigious and breathtaking record when you ponder it," noted department head Brian Slator in a nomination letter.

Juell, who died Dec. 29, also was a faculty adviser to the student Association of Computing Machinery chapter for more than 20 years. In his personal life, he and his wife, Caroline, hosted a continuous stream of foster children for Lutheran Social Services Unaccompanied Minors Program.

In supporting letters, former students shared comments, including "He was an excellent advisor," "A fine academic and an outstanding mentor to so many students" and "Inspired me to be a better person."

This is the first mentoring award given by the college.

Sylvio May, associate professor of physics, received the College of Science and Mathematics 2008 Research Award. May's research focuses on theoretical understanding of the physics of lipid membranes and other biomolecular assemblies.

"His expertise in this area of biophysics is central to the softmatter emphasis of the Department of Physics, and his enthusiasm for and dedication to scholarship are widely recognized both nationally and internationally," wrote Daniel Kroll, department head, in a nominating letter.

May has secured major funding from the National Science Foundation and the National Institutes of Health during his time at NDSU. He has 17 high-quality publications including two invited reviews and one invited book chapter since coming to NDSU in 2005.

He also has been promoted to the rank of associate professor with tenure. He received a unanimous recommendation for this promotion from the college's Promotion, Tenure and Evaluation Committee.

William Perrizo, professor of computer science, received the NDSU Chamber of Commerce Distinguished Professor Award.

R.S. Krishnan, committee chair and associate vice president for academic affairs, said the committee was impressed with Perrizo's distinguished record as an educator and his long and exemplary service.

The nomination written by the Department of Computer Science nomination committee and unanimously signed by the faculty of the department said, "Dr. Perrizo has served as a faculty member for 34 years, and through that time has consistently excelled and demonstrated leadership in teaching, research and service."

Assistant professor Wendy Reed is the College of Science and Mathematics 2008 Service Award recipient.

Reed's most notable service contribution at the university level has been her conception and advocacy of the Dakota Coteau Field School Project. Since coming to NDSU in 2002, she has worked with colleagues, administrators, community leaders and public officials to develop a teaching, research and outreach facility on native prairie at the eastern edge of North Dakota's Missouri Coteau region. She landed a \$300,000 contract with the U.S. Fish and Wildlife Service to plan the facility. The university is seeking funding for the \$6 million facility. Reed has been active in Focus on Resources for Women's Advancement, Recruitment/Retention and Development. She has served on the college's Dean's Advisory Committee and is the faculty adviser for NDSU student chapters of The Wildlife Society and Ducks Unlimited.

"Clearly, Wendy Reed has served NDSU, the college, her department and her profession at levels that are extraordinary for a junior faculty member," wrote professors Malcolm Butler, Theodore Esslinger and Mark Sheridan in a letter of nomination. "We believe this honor would be a highly appropriate recognition for Wendy's contributions during her first six years at NDSU."

Stockwell named James A. Meier professor



Craig Stockwell, associate professor of biological sciences, was awarded the James A. Meier Junior Professorship. The three-year award runs until 2011.

"In short, Craig loves both research and students – and best when the two are connected to each

Stockwell other," James Grier, emeritus professor of biological sciences, wrote in Stockwell's letter of nomination.

Grier noted the remarkable level of engagement of Stockwell's undergraduate students, including joint publications and presentations at national meetings. In the classroom, Stockwell uses research as a pedagogical tool. His students propose and develop projects that can be carried out during the semester.

"The students have taken to these projects and interactions with fellow students like frogs to water," Grier said. "They love it and many have gone on to become some of our best graduate students."

Stockwell has landed more than \$1 million in extramural funding for his research during his career, has published 28 papers and has spoken at 19 invited seminars. He was instrumental as chief champion in the development of the environmental and conservation sciences interdisciplinary graduate program at NDSU.

The James A. Meier Junior Professorship is one of only two professorships in the College of Science and Mathematics. James A. Meier, a 1959 mathematics graduate of NDSU, provides funding for the endowed professorships. He earned a doctorate in chemistry in 1971, and had a successful career with PPG Industries before retiring in 1997. NDSU awarded Meier with an honorary doctorate in 2007.

Gorz receives high honors

Kelly Gorz, a geosciences major and NASA McNair Scholar, received the Historic New Harmony Student Award for a paper that she presented at the north central sectional meeting of the Geological Society of America April 24-25, in Evansville, Ind.

Her paper is titled "OSL Dating of Glacial Lake Agassiz Strandlines in Western Cass County," and was developed from research for her McNair project. According to Ken Lepper, Gorz's adviser and assistant professor of geosciences this is a very challenging and important career-building step for an undergraduate student.

This was Gorz's first time presenting at a professional conference.

Science magazine features research of two geosciences professors



Field research in Antarctica by Allan Ashworth and Adam Lewis, both professors in the Department of Geosciences, is featured in the latest issue of Science magazine.

The article, "Freeze-Dried Findings Support a Tale of Two Ancient Climates" by journalist Douglas Fox, describes how the discovery of freeze-dried moss has provided evidence about the climate a million years ago in the Dry Valleys of the icy continent. The ancient plant material indicates there was a tundra-like ecosystem in Antarctica 14 million years ago.

"For scientists, the two premier journals are

Lewis Science and Nature. Their readership cuts across disciplines and is truly global in extent," Ashworth said of the journals. "For a scientist, life doesn't get much better than to have their studies highlighted this way."

Ashworth and Lewis have studied fossilized vegetation in Antarctic lakebeds. During four expeditions, researchers have collected hundreds of pounds of rock from which fossils have been extracted and studied by researchers around the world.

The article can be found at *www.sciencemag.org/cgi/content/ full/320/5880/1152*.

Pieri, Mitra present at workshop in India



Robert Pieri, professor of mechanical engineering, and Subhro Mitra, research assistant for the Great Plains Transportation Institute, were featured speakers at an international workshop at Jalpaiguri Government Engineering College in Jalpaiguri, West Bengal, India, on Feb. 21-22.



The workshop was titled "Alternative Fuels in I.C. Engines," and was jointly organized by the Jalpaiguri Government Engineering College and Jadavpur University under the Technical Education Quality Improvement Program.

Pieri's presentation, "Alternative Fuels for IC Engines: The Current Situation in the United States of America and Possible Roads to the Future," was

Mitro of America and Possible Roads to the Future," was made with Indian researchers in the same field. According to Pieri, the material included a brief summary of the energy situation in this country, and he discussed the role that North Dakota can play as a major energy supplier and highlighted some of the actions that NDSU has done, specifically the hydrogen tractor.

Mitra's presentation was on the use of the Global Positioning System and Geographic Information System for traffic system development. Mitra is a recent doctoral graduate from NDSU and he received his undergraduate degree from the Jalpaiguri Government Engineering College.

Pieri said the workshop commemorated the collaborative activities of NDSU and Jalpaiguri Government Engineering College in alternative energy and Mitra's success. The event also acknowledged the initial phase of Jalpaiguri Government Engineering College's establishment of a program in alternative energy.

NDSU students present nanotechnology research

Many areas of the microscopic world of nanotechnology were explored during the sixth "NDSU Student Conference on Nanotechnology and Nanomaterials" held May 2.

Graduate students gave presentations on topics ranging from nanostructure biomaterials to environmental aspects of nanotechnology, from nanocomposites to nanomanufacturing. The students were taking the "Fundamentals of Nanotechnology and Nanomaterials" course taught by Kalpana Katti, university distinguished professor of civil engineering.

The students' talks were based on course term papers they prepared on a variety of assigned nanotechnology-related subjects. "They give a presentation just like this is a real conference, so they get that experience and also develop speaking skills," Katti explained.

Nanotechnology is an emerging field of study, often described as having endless possibilities. "It is a 'bottoms up' technology, which means trying to build large structures, devices and objects starting with nanometer-sized objects, specifically atoms and molecules," Katti said. "We have far more control over what the properties can be, and the materials can be engineered to be multifunctional – for example, they can concurrently have tailored optical, mechanical, electrical, thermal, electronic and biological properties."

The presentations gave the students a chance to discuss topics at the forefront of nanotechnology such as polymer clay nanocomposites, buckeyball and nanotube applications, multiscale modeling, nanomanufacturing and quantum dots.

Stacy Sommer, a graduate student from St. Croix Falls, Wis., who is studying coatings and polymeric materials, gave a talk on "Combinatorial Methods in Nanotechnology."

"As a graduate student going into the scientific field where we're continuously asked to present research, it is really important to get a lot of practice doing so," Sommer said. "As a second-year graduate student, I've noticed how much I've improved in public speaking and I think activities like this have helped in that."

Other graduate students giving presentations were Umesh Harkal and Rajan Bodke, both from India studying coatings and polymeric materials; Xiao Pan, from China studying coatings and polymeric materials; Harjyoti Kalita, from India studying materials and nanotechnology; S.K.M. Divya, from India studying civil engineering; Martin Hanson, from Perham, Minn., studying mechanical engineering; Derek Huotari, from Frazee, Minn., studying mechanical engineering; Shanshan Huo, from China studying mechanical engineering; and Austin Decker; from Miles City, Mont., studying mechanical engineering.

Hillier named intern at Agweek

Amanda Hillier has been hired as a summer intern at Agweek. She has finished her first year at NDSU and is majoring in natural resources management. She is from Hensel, N.D.

Hillier is a former editor of the Cavalier, N.D., high school newspaper, The Tornado Breezes. During the academic year, she works at The Spectrum, the student newspaper at NDSU.

Berg earns advanced certification



Erika Berg, an assistant professor in NDSU's Department of Animal Sciences, earned her advanced instructor certification through the North American Riding for the Handicapped Association.

Berg She received the certification following an intensive, two-day evaluation at Three Gaits Therapeutic Horsemanship Center in Stoughton, Wis., in May.

Berg has developed three undergraduate courses in therapeutic horsemanship. The classes, combined with additional equine studies courses, are designed to prepare students to take the association's registered instructor exam so they are certified as therapeutic riding instructors.

Advanced certification is the second of three levels of instructor certification. The first is registered certification and the third is master certification.

Berg has taught therapeutic horseback riding to individuals with disabilities for 12 years.

Mixon receives Hagen Leadership Award



Keith "Chad" Mixon was presented with the 2008 Hagen Leadership Award at the NDSU graduation reception for the Master of Military Logistics program on May 9.

Mixon, center, is pictured with his wife, Charlotte, and President Chapman. The Upper Great Plains Transportation Institute presents the award to

the Master of Military Logistics student who best represents demonstrated comprehension of logistics and transportation and who served as a role model to others in all areas of academics and professional development. The recipient is chosen by a vote of his or her peers.

The award is named after 1st Lt. Loren Hagen of the Army. Hagen was killed in action and won the Medal of Honor. He was a native of Fargo and was a member of the ROTC at NDSU.

Mixon, a native of Live Oak, Fla., is a captain in the Army. He graduated cum laude from the University of North Carolina at Pembroke with a bachelor's degree in criminal justice in 2000. He received his commission through ROTC at the University of North Carolina where he was named the top Army ROTC cadet. Before entering the Masters of Military Logistics Program at NDSU, he was assigned to Fort McPherson, Ga., where he served as commander of headquarters and headquarters detachment, 53rd Transportation Battalion. Since 1993, Mixon has held numerous positions in the Army including platoon leader, assistant support operations officer and movement control officer. He also has served two one-year tours in support of Operation Iraqi Freedom.

He has earned two Bronze Star medals, an Army Commendation Medal, Army Achievement Medal, Ranger Tab, Senior Parachutist Badge, Air Assault Badge and the Expert Infantryman Badge. Mixon is a member of the second graduating class of the Master of Military Logistics program, part of the interdisciplinary Transportation and Logistics Program offered by the College of Graduate and Interdisciplinary Studies and coordinated by the Upper Great Plains Transportation Institute.

Animal sciences faculty to participate in meat science national meeting



Eric Berg, associate professor in the Department of Animal Sciences, has been named chairman of the 61st Reciprocal Meat Conference. The conference is the annual meeting of the American Meat Science Association, a scientific professional society that brings together meat scientists, muscle biologists, food safety experts and students from academia, industry and government.



Maddock

Berg's responsibilities include the year-long process of supervising and developing the technical program which includes sessions on fresh meat quality, food safety, processing and ingredients, culinary topics in food service, muscle and molecular biology and consumer issues. He will

call the conference to order on June 22 at the University of Florida in Gainesville and his responsibilities will be completed with the closing gavel on June 25.

Robert Maddock, associate professor of animal sciences, will present "Antibiotic treatment of morbid animals and its effect on meat quality;" and Charlie Stoltenow, associate professor and doctor of veterinary medicine, will present "Antibiotic Resistant Bacteria."

This conference allows participants the free exchange of ideas and discussion or reciprocation. Approximately 700 attendees are registered for this year's meeting. More information on the American Meat Science Association and the 2008 Reciprocal Meat Conference is available at *www.meatscience. org/RMC/*.

Moore completes microscopy workshop

Jayma Moore, laboratory manager of the NDSU electron microscopy center, recently completed the RMC Cryoultramicrotomy Workshop sponsored by Boeckeler Instruments Inc. in Tucson, Ariz. Ten other scientists from Arizona, Ontario, Korea and Israel attended the course.

According to Moore, the NDSU Electron Microscopy Center has provided technical support to the NDSU research community since 1963. "Annually, over 100 research scientists and graduate students representing 20 or more academic departments utilize the service facility. With four electron microscopes, stereo and compound light microscopes including confocal, and a full range of ancillary equipment, the Electron Microscopy Center allows researchers to take advantage of advanced imaging technology without the time demands and frustrations of routine upkeep and maintenance," Moore said. "Skilled technical staff save time and expense by assisting with or performing procedures from experimental design to fixation, dehydration, embedding, sectioning, staining, critical point drying, coating, examination, analysis and photography, as well as interpretation of results. Complete service includes final image preparation for manuscripts and presentations. The laboratory encourages and frequently serves as the catalyst for multidisciplinary cooperative research projects."

Tours and talks tailored to large or small groups of all ages are scheduled on request, and the JEOL 6490LV scanning electron microscope can be utilized remotely via the Internet for demonstration or research. Contact the Electron Microscopy Center at 1-8435 or go to *www.ndsu.nodak.edu/ ndsu/em_lab/* for more information.

NDSU communicators win awards



Three NDSU communication professionals won awards in the 2007-08 North Dakota Professional Communicators' communications contest.

The awards were presented during the organization's spring conference in Grand Forks. First-place winners advanced to the national competition.

Carol Renner, communications manager in

Research, Creative Activities and Technology



Transfer, received first place for her single feature release on an NDSU professor's research appearing in the National Geographic magazine, first place for her PowerPoint presentation on a range of groundbreaking research at NDSU, first place for her feature story on an NDSU anthropologist studying bog mummies and second place for her feature story on an NDSU Extension Service economics specialist who uses proms as a way to teach youth about financial responsibility

Crawford BC

Becky Koch, director of Agriculture

Communication, received first place in the magazine/tabloid one- to three-color category for an issue of the North Dakota Ag Mag.

Ellen Crawford, information specialist in Agriculture Communication, received first place for her external annual report for the Rural Leadership North Dakota program's class of 2005-07 summary booklet, second place for her single feature release on biomass research at NDSU's Central Grasslands Research Extension Center, second place for her single news release on the search for Juneberry plants to become commercial varieties, second place for her agricultural articles on Annie's Project and raising cattle the natural way, second place for her newspaper ad on NDSU's Grow 21: Enhancing North Dakota's Economy Through Agriculture Efforts and an honorable mention for news reporting for an article on NDSU Extension's Dining with Diabetes program.

Rasch awarded with Outstanding Disabled Veteran Award



Peggy Rasch, Veterans Upward Bound lead instructor, has been awarded the Disabled American Veteran Chapter One Outstanding American Veteran Award.

She recently was inducted as commander of the Fargo Disabled American Veterans. She also has

Rosch won the North Dakota Outstanding Disabled Veteran Award, and now is a contender for the national Achievement Award.

Rasch earned a bachelor's degree in elementary education, physical education and therapeutic recreation. She also earned a master's degree in experiential education and management.

Veterans Upward Bound Program provides non-credit course work and support services to help veterans complete high school equivalency examinations, prepare for postsecondary education and to facilitate veterans work mobility and advancement. Appropriate program and school selection is part of the program and veterans can transfer benefits to any accredited school.

Pilling gives lecture in Russia



Terry Pilling, assistant professor of physics, was in Russia May 23 through June 7 to give an invited lecture at the international Quarks 2008 conference.

His talk, "Quasi-classical Hawking radiation and Black Hole Thermodynamics," was based on his recent papers in collaboration with the University of California and the Institute for Theoretical and

Experimental Physics in Moscow. One of the papers recently won honorable mention in the prestigious 2008 Gravity Research Foundation competition.

Pilling joined the NDSU physics department in August 2004 after completing postdoctoral work at the Bogoliubov Laboratory of Theoretical Physics at the Joint Nuclear Research Institute in Dubna, Russia.

Tolstedt joins Technology Transfer Office, Goswami awarded scholarship



Jonathan Tolstedt has been named licensing associate and patent agent in the Technology Transfer Office at NDSU and the NDSU Research Foundation and Jaideep (Joy) Goswami has received the Bremer Scholarship from the Association of University Technology Managers.

Tolstedt joins NDSU with engineering experience from Rockwell Collins Commercial Avionics Division and Phoenix International. He has been a lecturer at NDSU and a business development specialist at Phoenix International. Tolstedt also previously served as president and founder of Brainstorm Consulting in Fargo. He earned a bachelor's degree in electrical engineering from South Dakota State University, Brookings, and a master's degree in computer science from the University of Iowa, Iowa City.

Tolstedt's responsibilities in the Technology Transfer Office include evaluating inventions for market and patent feasibility and facilitating intellectual property agreements on behalf of the university. His responsibilities with the research foundation include facilitating the patent and other protection of university-developed inventions, marketing and licensing the inventions to industry.

The Howard Bremer Scholarship awarded to Goswami honors students and staff members who pursue a career in technology transfer. Goswami received an honorarium and was recognized at the Association of University Technology Managers Annual Meeting. He was one of five selected for the honor. The scholarship's goal is to foster educational opportunities for individuals who are committed to the vision of technology transfer. Goswami earned a master's degree in molecular biology from the University of Delhi, India, and a master's degree in business administration from St. Cloud State University, St. Cloud, Minn.

The NDSU Technology Transfer Office and research foundation, led by Dale Zetocha, serve as links between the university and industry. The Technology Transfer Office aims to effectively protect the inventor and NDSU intellectual property developed in research and the research foundation supports the transfer of university technologies to the marketplace.

Voegel-Ciernia receives Phi Kappa Phi fellowship



Annie Therese Vogel-Ciernia, a senior from Ulen, Minn., majoring in biotechnology, was awarded a fellowship by Phi Kappa Phi honor society for the 2008-09 academic year. The fellowship will enable her to pursue a doctorate in neuroscience at the University of California, Irvine. She is the daughter of Mark Ciernia and Therese Vogel.

Vogel-Ciernia

Vogel-Ciernia is among 100 students nationwide to receive the Phi Kappa Phi fellowship or Award of Excellence. Created in 1932, the fellowship program allocates nearly \$380,000 annually to deserving students for first-year graduate study. Currently, 60 fellowships of \$5,000 and 40 Awards of Excellence of \$2,000 are awarded each year.

The selection process for the Phi Kappa Phi fellowships is based on the applicants' undergraduate academic performance; leadership and service on the campus and in the community; evidence of graduate potential; personal statement of educational perspective, purpose and objectives; and the evaluation reports from three individuals who are in a position to attest to the student's performance, citizenship and character.

Founded in 1897 and headquartered in Baton Rouge, La., Phi Kappa Phi is the nation's oldest, largest and most selective all-discipline honor society. Phi Kappa Phi has chapters at more than 300 select colleges and universities in North America and the Philippines. Membership is by invitation only to the top 10 percent of seniors and graduate students and 7.5 percent of juniors. Faculty, professional staff and alumni who have achieved scholarly distinction also qualify.

Pharmacy faculty receive awards



The College of Pharmacy, Nursing, and Allied Sciences recently presented awards honoring faculty for outstanding performance during the 2007-08 academic year. This year's recipients received recognition at the pharmacy graduation hooding ceremony on May 9 at Reineke Festival Concert Hall. Approximately 800 attended the ceremony.



Sanku Mallik, associate professor of pharmaceutical sciences, received the 2008 Pharmacy Program Teacher of the Year Award. The award is chosen by students and goes to a faculty member for their outstanding performance and commitment to teaching. Students from all four years of the professional program are invited to write an essay of nomination.

A student selection committee, with representatives from each class, reviews the essays and chooses a winner.

Tara Schmitz, assistant professor of pharmacy practice and clinical pharmacist practicing in Oakes, N.D., received the 2008 Faculty Preceptor of the Year Award. Students in the fourth professional year of the program choose the winner, a full-time faculty member who provides outstanding performance and commitment in instruction of pharmacy students on clinical rotations.

Nathan Schlecht, a community pharmacist and owner of Forman Drug in Forman, N.D., received the 2008 Adjunct Preceptor of the Year Award. Graduating seniors choose an Adjunct Preceptor of the Year, who represents outstanding performance and commitment in instruction of pharmacy students on clinical rotations by a practicing pharmacist who volunteers their time to provide clinical instruction of pharmacy students.

Bromley exhibit at St. John's University



Pond paintings by Kim Bromley, NDSU visual arts associate professor and academic coordinator, are on exhibit at St. John's University Art Center in the Target and Alice R. Rogers Galleries, Collegeville, Minn. The exhibition runs May 30 through Sept. 19.

Bromley For the past two years, Bromley has painted large-scale colorful works celebrating the beauty of the natural setting on location at his family acreage and pond.

"My paintings are not exact duplicates of what is in front of me. They are my responses to this unique environment. As I progress with my painting, the work becomes more abstract," Bromley said. "I attempt to capture the essence of what I see, creating lush, colorful works of art. These painterly artworks are about color, light and a celebration of life."

The galleries are closed on Mondays and open from 11 a.m. to 4 p.m. on Tuesday through Sunday. The galleries will be closed July 4-7. For more information, call (320) 363-2701 or go to www.csbsju.edu or www.csbsju.edu/finearts/visual_arts/ default.htm.

Comez, Meister to lead University Senate



Outgoing University Senate president Donna Terbizan, professor of health, nutrition and exercise sciences, handed the gavel to Dogan Comez, professor of mathematics, during the group's May 5 meeting. Comez will lead the University Senate during the 2008-09 academic year, while Mark Meister, associate professor of communication, was elected president-elect.

Comez



"It is a real honor and privilege to receive the gavel," Comez said. "Donna has been an exemplary leader of the University Senate, and I hope I can be as successful a president as she has been."

Comez, who joined the NDSU faculty in 1985,

Meister is the principal investigator of the GraSUS (Graduate Student-University-School) Collaborative for Science, Mathematics, Engineering and Technology. He earned his bachelor's and master's degrees at Middle East Technical University, Ankara, Turkey, and his doctorate at the University of Toronto, Canada.

His honors include the 2007 Odney Award for Excellence in Teaching and the 2007 Distinguished Service Award for the College of Science and Mathematics.

Meister earned his bachelor's degree at Carroll College, Helena, Mont.; his master's degree at NDSU; and his doctorate in communication studies at the University of Nebraska.

He received the Emerging Scholar Award from the Kenneth Burke Society and was named the Outstanding Graduate Teaching Assistant by the International Communication Association. He also received the Michael J. Murphy Outstanding Academic and Citizenship Award at Carroll College. His professional organizations include the National Communication Association, Central States Communication Association, North Dakota Speech and Theater Association and Kenneth Burke Society.

Samarasinghe and Tabe earn awards at Academy of Science meeting

The 100th annual meeting of the North Dakota Academy of Science was held April 24 in Grand Forks, N.D. This year, 26 undergraduate and 28 graduate students participated in the competition. Prizes were given for oral presentations at the graduate and undergraduate level.

In the graduate junior division, Amali Samarasinghe, a graduate student studying molecular pathogenesis, earned second place and Ebot Tabe, a graduate student studying food safety, earned third place.

Van Doze, president of the North Dakota Academy of Science and associate professor in the University of North Dakota School of Medicine and Health Sciences Department of Pharmacology, Physiology and Therapeutics, said this year's winners represented a talented, high achieving and very successful pool of students with their eyes set on careers in science.

"This speaks highly of science education in North Dakota and at the university," said Doze. "We are very proud of these students and their accomplishments and we will continue to encourage their interest in science and research.

First place winners received \$200 and a plaque. Second place winners received \$150 and third place winners received \$100.

Jackson publishes novel

Terence (Jack) Jackson, administrative secretary for the Department of History, Philosophy and Religious Studies, has published his first novel. Published last April, "Thirty Days and Counting," is a love story with settings in England, the American South and Fargo.

"It feels great to have the book published," Jackson said. "I had started the work as a monologue, but was inspired to write the full novel while I was taking a class here at NDSU." He is working toward a bachelor's degree in sociology with a minor in anthropology.

Jackson said that while he was enrolled in Patty Corwin's Sociology Through Literature course, it was her teaching that made him want to strive for the most he could achieve. Corwin is a senior lecturer in the sociology department.

Jackson's novel was a semi-finalist in the Amazon Breakthrough Novel Award competition and is available from *Amazon.com*.

EVENTS

Distance and Continuing Education to offer seminars for instructors

Faculty and staff are invited to join NDSU Distance and Continuing Education this summer for a series of short, but powerful, seminars designed for instructors to learn about technologies and tools that enhance Distance and Continuing Education courses. Pre-registration is required. All courses are for beginners and will be held in the Family Life Center Room 320.

Measuring the Learning with Blackboard

Blackboard offers many ways to incorporate both assessment and evaluation in courses. Learn how to use the assignment feature, discussion board, test manager and other features to give assignments, exams and other assessment and evaluation activities. Dates/times: June 17, 1:30 p.m. June 25, 1:30 p.m. July 14, 10 a.m. July 22, 10 a.m.

Social Media 101

This seminar provides an introduction to several popular social media technologies including wikis, podcasts and instant messages – technologies that facilitate interaction and creativity. It also demystifies some of the ways they can be used for education.

Dates/times: June 18, 1:30 p.m. June 27, 1:30 p.m. July 16, 10 a.m. July 24, 1:30 p.m.

Be There with Wimba!

This seminar will provide an overview of the features of the Wimba Classroom and related Wimba technologies to bring video, voice and application sharing into online courses. Participants are encouraged to bring a headset and Web camera to fully participate in this hands-on seminar. More details will be provided to registrants.

Dates/times: June 19, 1:30 p.m. June 23, 1:30 p.m. July 17, 10 a.m. July 23, 1:30 p.m.

To register or for more information, contact Lyn Willoughby, Distance and Continuing Education instructional designer, at 1-6371 or *lyn.willoughby@ndsu.edu*.

Safety courses scheduled

A lab and chemical safety course will be held Tuesday, July 15; Wednesday, Aug. 20; and Tuesday, Sept. 2. All courses are from noon to 4 p.m. in the Memorial Union, Prairie room.

The course is required for new laboratory workers and serves as a refresher course for people currently working in laboratories.

Topics include knowledge of chemicals, personal protection, fire safety, electrical safety, hazard communication standards, physical and chemical hazards, chemical spills and waste handling.

There is no fee for the lab and chemical safety course. The instructor for the course is Ted Jirik. The class size is limited to 25 people. Registration is required and students must attend the entire session.

For more information or to register, contact Stephanie Wagner at *stephanie.wagner@ndsu.edu* or call 1-7759.

SHORTS AND REMINDERS

Positions Available

Positions open and screening dates through the Office of Human Resources, Room 205, Old Main:

Administrative Secretary/#00020767 Extension Agriculture and Natural Resources \$24,000+/year June 24 Lead Caterer/#00023314 12-month position; 40 hours per week Monday through Friday with weekends Various a.m. hours Dining Services - Memorial Union \$9+/hour Open until filled

Food Technologist Northern Crops Institute \$29,000+/year June 19

Food Technologist Plant Sciences \$28,000+/year June 23

Assistant Pulse Crop Breeder North Central Research Extension Center Minot, N.D. Salary commensurate with experience June 23

Lab Technician/#00021251 Physics \$30,000+/year June 30

Research Analyst (2 positions) Institutional Research and Analysis \$40,000+/year July 8

Communications Specialist/#00026440 Research, Creative Activities and Technology Transfer Salary commensurate with experience June 24

Information Systems Specialist Pharmacy, Nursing, and Allied Sciences \$43,000+/year June 26

Digital Initiative Librarian NDSU Library Salary commensurate with experience Open until filled

Serials Librarian/#00026404 NDSU Library Salary commensurate with experience Open until filled

Accountant Programmer Analyst/#00021765 Agriculture Budget Office Salary commensurate with experience Open until filled

Programmer Analyst NDUS ConnectND Fargo \$50,000+/year Open until filled

Position openings also are available through the NDSU Web site at *www.ndsu.edu/jobs*.

CALENDAR

July

4 Independence Day holiday observed – university closed

August

1	Last day of summer classes
25	Classes begin at 4 p.m.
26	First full day of classes

Non-discrimination Policy

North Dakota State University does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, Vietnam Era Veterans status, sexual orientation, marital status or public assistance status. Direct inquiries to the Executive Director and Chief Diversity Officer, 202 Old Main, 1-7708.

University Relations North Dakota State University PO Box 5167 Fargo, ND 58105