

Alien Technology groundbreaking held

With dignitaries praising the opportunities ahead, groundbreaking ceremonies were held Oct. 13 to celebrate the construction of the new Alien Technology Corp. manufacturing plant at NDSU's Research and Technology Park. In addition, Alien announced it would support three graduate fellowships at NDSU.

Alien, based in Morgan Hill, Calif., will produce "Radio Frequency Identification" (RFID) tags for retail and supply-chain uses. The tags consist of a small integrated circuit attached to a metallic antenna printed on a label. The RFID tags allow wireless identification of the items that they are attached to. The tags are expected to eventually supplement or replace the extensively-used bar codes that now track inventories of all types of commercial products.

"We'll be on the very leading edge of Radio Frequency Identification tags. We're going to be doing research and we're going to be involved in the commercialization. These small, tiny tags are going to revolutionize warehouses and the retailing industry, not only in this country but around the world," NDSU President Joseph A. Chapman told the nearly 300 people attending the groundbreaking ceremony. "This plant will attract quality people with high tech jobs. Its employment plans will surely enhance this region's economy."

During his remarks, Stav Prodromou, Alien CEO, announced the company will support three graduate research fellowships at NDSU; one in engineering, another in the sciences and a third in business technology related to RFID.

"I have never traveled anywhere where we were met with more warmth and friendship than here in North Dakota. We've made life-long friends here," Prodromou said. "North Dakota's leaders chose the kind of business-friendly attitude that convinced us that we will succeed here."

Gov. John Hoeven credited teamwork for bringing Alien to Fargo. The \$35.8 million proposal was compiled through support from such entities as the Fargo/Cass County Economic Development Corp., the North Dakota Department of Commerce, the North Dakota Development fund, local banks, the City of Fargo, NDSU and the Bank of North Dakota.

"They say that good things come in small packages. I think nano-size is just right," said Hoeven. "We're working very hard in North Dakota to combine education with economic development to create higher paying jobs. That's absolutely what is happening in the NDSU Technology Park. That is absolutely what is happening with Alien Technology."

Alien and NDSU first joined forces in 2000 through efforts by Sen. Byron Dorgan, who appropriated federal funds for them to collaborate on research for the Pentagon. That partnership was a key factor in the company's choice of location.

Dorgan described the plant as an important step in offering good jobs that pay well in order to help keep North Dakota's young people in the state. "We have in this state bright minds, young geniuses, future inventors, the best and the brightest. We've got young brains that we train and teach, and then they end up being a part of somebody else's future. Frankly, I'm sick and tired of it," Dorgan said. "This is not about turning dirt. This is about turning opportunity for young people." *cont.*

Next Issue

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Dr. Richard Kunkel, president of the State Board of Higher Education, said the groundbreaking dovetails with the Interim Committee on Higher Education's Roundtable Report. He noted that it follows the report's cornerstones of "economic development," "education excellence" and "flexible and responsive system."

"The partnership with Alien Technology is the embodiment of these three cornerstones," Kunkel said. "It is prime example of business and higher education working together hand-in-hand to help one another thrive."

The plant is expected to be in operation in 2005, with about 300 employees by 2006-07.

"Sometime in the future people may look back at this day and say it was the beginning of something truly great for our community, state and region," said Tony Grindberg, Research and Technology Park executive director, who served as master of ceremonies. "I believe the Alien plant will be viewed as a major building block as we build the Red River Valley Research Corridor for high technology-based business and research."

Also participating in the ceremony were Rep. Earl Pomeroy, Fargo Mayor Bruce Furness and Philip Boudjouk, vice president for research, creative activities and technology transfer.

Hillman named NDUS interim chancellor

The State Board of Higher Education has named Michel Hillman interim chancellor of the North Dakota University System, effective Nov. 10. Hillman currently serves as the NDUS vice chancellor for academic and student affairs.

"The State Board of Higher Education is very pleased Dr. Hillman has accepted this additional assignment," said Richard Kunkel, SBHE president. "Mike's leadership will provide us the continuity needed to maintain the momentum of the Roundtable on Higher Education and several key initiatives now underway in the University System."

"The university system has a talented, effective leadership team," Hillman said. "As interim chancellor, my role will be to help the system continue on the path envisioned by the board and the Roundtable on Higher Education."

Hillman was appointed vice chancellor for academic affairs in June 1996 and assumed responsibility for student affairs in December 2002. He was director of academic affairs for the South Dakota Board of Regents from 1987 until joining the NDUS in 1996. He received a bachelor's degree in psychology from Slippery Rock State College in Pennsylvania, a master's degree in experimental psychology from Indiana University of Pennsylvania and a doctorate in experimental psychology from the University of South Dakota, Vermillion.

Hillman will continue in his capacity as vice chancellor while serving in the interim position. The board plans to have the position filled by July 1, 2004.

'Agricultural History' published at NDSU

The first NDSU-published edition of *Agricultural History* was issued Oct. 15. The journal's editorial offices were relocated to NDSU July 1, with an official transfer ceremony held Oct. 3 as part of the Northern Great Plains history conference.

The issue includes an article on slavery in the American South, a discussion of the relationship of Florida orange growers and their environment, an investigation of the roots and tubers grown and consumed in Indonesia and book reviews.

The journal's editor is Claire Strom, assistant professor of history. The managing editor is Suzanne Kelley, history graduate student. Subscriptions are available at www.ucpress.edu/journals/ah/shop.htm.

Transit Center Steering Committee meets

NDSU's Small Urban and Rural Transit Center, a unit of the Upper Great Plains Transportation Institute, hosted the annual meeting of its steering committee at the Alumni Center Sept. 24. The purpose of the meeting was to discuss relevant public transportation issues faced by western Minnesota, Montana, North Dakota, South Dakota and Wyoming and how SURTC can address them. The issues and discussion will help guide SURTC research and the outreach the center will provide in the future.

Participating in the meeting were Barbara Sisson, associate administrator of the Federal Transportation Administration, Washington, D.C.; David Sprynczynatyk, North Dakota Department of Transportation director; SURTC director Jill Hough; UGPTI director Gene Griffin; and SURTC associate research fellows Gary Hegland and Del Peterson. Also in attendance were steering committee members Tony Kouneski, American Public Transportation Association, and Chris Zeilinger, Community Transportation Association of America, Washington, D.C., and transportation officials and transit managers from the five SURTC states.

NCI offers new wheat, flour quality course

Twenty-four participants from three countries attended a new course at Northern Crops Institute (NCI). The three-day short course, "Basics of Wheat and Flour Quality," began Oct. 15.

The course covers how to evaluate wheat and flour quality, the milling process, function of flour additives and treatments, and flour requirements for different end-use products.

"'Basics of Wheat and Flour Quality' is a new course that NCI is offering to fill a need that we identified in the local and United States markets," said Brian Sorenson, NCI's technical director and NDSU Extension wheat quality specialist. "This course is an excellent opportunity for people from various wheat-related industries to learn about the important quality factors associated with wheat and flour, and how they impact final product performance."

The course, which is designed for people working with wheat and wheat-based products, combines lectures with hands-on laboratory testing so the participants can see and learn how to perform tests and how to interpret the results.

NCI supports regional agriculture and value-added processing by conducting educational and technical programs that expand and maintain domestic and international markets for northern-grown crops.

Grant to fund new genetic resources in wheat

The National Science Foundation has awarded NDSU a \$1.8 million grant to develop new genetic resources in wheat. The lead researcher at NDSU is Shahryar Kianian, associate professor of plant sciences.

NDSU is the lead institution for the project. Other universities involved are Oregon State University; the University of California, Davis; the University of Arizona, Tucson; and Kansas State University.

“Essentially, what we’re doing is ‘knocking out’ genes in a plant,” Kianian says. “Then we’ll look to see what happens to the plant. For example, we will be able to tell if a particular gene or set of genes make the plant grow taller, shorter or is able to better tolerate drought.”

The process of “knocking out” genes is called mutagenesis. During the process, genes are removed using certain chemicals.

For the project, Kianian and a group of colleagues from across the United States will generate about 40,000 mutated lines. They hope to establish international collaborations to eventually create 80,000 mutated lines. “With that many lines, we will have ‘knocked out’ almost every gene in the plant,” Kianian says. “We’ll be able to tell what was beneficial or what was detrimental to the plant. In the long run, it will help us breed wheat varieties that are better adapted to the needs of the food processing industry or have unique utility in the market.”

Mutagenesis is different than transgenic research, Kianian notes. “With mutagenesis we are removing a gene that exists in the plant while transgenic research involves adding genes from a different source. All of the gene knock outs are chemically induced.”

In nature, approximately one of every million wheat seeds mutates, Kianian said. “If you walk through a field you’ll eventually notice one plant that is taller, shorter or has some other variation. In some cases, the mutated plant would be very beneficial for producers to grow. However, it may take someone a lifetime to find that plant. Mutagenesis greatly speeds up that process.”

The wheat that will be used in the project is a diploid wheat, *Triticum monococcum*. It is grown in the Middle East and is the ancestor to modern day wheat. “All the results will be applicable to durum and bread wheat because all the genes are the same,” Kianian said. “Hard red spring wheat has six sets of identical genes and durum has four. A diploid wheat has only two identical copies so it’s easier to work with and identify the beneficial change.”

The mutated seeds will be stored at NDSU as well as the other four universities. Kansas State University, through the Wheat Genetics Resource Center, will be responsible for distributing the seeds to the public. “We will also develop a database to disseminate the information generated by this research and future experiments to the public,” Kianian said.

NDSU selected ‘History Day’ state headquarters

NDSU has been chosen as North Dakota’s headquarters for this year’s National History Day program.

Originated in 1980, the National History Day program promotes systemic educational reform related to the teaching and learning of history in America’s schools. North Dakota’s program engages students in grades 6-12 throughout the academic year in the discovery and interpretation of historical topics. Activities include dramatic performances, exhibits, multimedia documentaries and research papers based on research related to an annual theme. The projects are then evaluated at local, state and national competitions.

NDSU was selected after a proposal process that began in January. The North Dakota History Day board reviewed proposals from a number of institutions, including higher education, the state historical society and other historical agencies. According to board member comments, NDSU was chosen because of its “strong financial support, but more importantly, the accompanying letter from the provost illustrated interest in this position at the highest administrative levels. We are sure that NDSU will work to expand the program throughout the state and provide a high quality experience for the participating children, teachers and parents.”

According to Claire Strom, assistant professor of history, a search committee has begun a search for a program coordinator.

People

Former faculty member Johnson dies

John N. Johnson, retired associate professor of animal and range sciences, died Oct. 11 in Fargo. He was 75.

An NDSU faculty member for 31 years, Johnson retired from the university in 1989. An NDSU alumnus, he earned a bachelor’s degree in 1956 and a master’s degree in animal science in 1961.

He received many honors, including the 1966 Alpha Zeta Teacher of the Year, FFA Honorary State Farmer Degree, 1976 Blue Key Distinguished Educator Award and 1983 Mortar Board Outstanding Adviser of the Year Award. He also served as coach for the Livestock Judging Team and was adviser to the Saddle and Sirloin Club and Rodeo Club.

Johnson also was superintendent of the swine division of the Red River Valley Fair for 29 years, manager of the swine show at the North Dakota Winter Show in Valley City, N.D., and secretary of the North Dakota Pork Producers and the affiliated Northern Purebred Swine Breeders Association.

Following retirement from NDSU, Johnson worked in the crop insurance industry, finishing his career with the Hartford Insurance Co. He is survived by his wife, Bonnie, two sons and one daughter.

College of Engineering and Architecture welcomes new faculty

The College of Engineering and Architecture is welcoming several new faculty members during the fall semester.

New assistant professors of architecture and landscape architecture include Brian Dougan, Angela Hansen and Cindy Urness. Joining the mechanical engineering faculty are associate professor Iskander Akhatov, associate professor Ghodrat Karami, associate professor Weihong Zhong and assistant professor Stephen Mascaro.

Darsono Tjokroamidjojo, assistant professor of industrial and manufacturing engineering; Khaled Nassar, assistant professor of construction management and engineering; Tarek Zayed, assistant professor of construction management and engineering; and Ivan Lima, assistant professor of electrical and computer engineering, also joined the college.

“The College of Engineering and Architecture has brought on a record 11 new faculty this year, most of whom have replaced retirees, but some are in new positions to keep up with the growth of the college,” said Otto Helweg, dean of engineering and architecture. “The college has always been very selective of the professors hired. Most positions had 30 or more applicants. In almost every case, we were able to attract our first choice. Every new faculty member is committed to excellence in teaching. These new hires will continue, if not increase, the momentum of continuous improvement and excellence in both teaching and research. I don’t see the excitement of our growth in quantity and quality decreasing any time in the near future.”

Dougan comes to NDSU via Rhode Island and Louisiana with a passion for sharing an interdisciplinary reality with students. His previous experiences as a craftsman, potter, musician, architect, traveler, and teacher have provided an awareness of the communion of all creative endeavors. Dougan earned his bachelor’s degree, Master of Education and Master of Architecture from Texas A&M University, College Station.

Hansen graduated from Kansas State University, Manhattan, with a double master’s degree in landscape architecture and environmental planning and management. Prior to joining NDSU, she worked for South Landscape Architects PC, Boise, Idaho, a landscape architecture firm. Her areas of interest include natural resource management, open space planning, park and recreation design, land use and development issues specifically related to urban sprawl, neo-traditional housing and growth management.

Urness earned her bachelor’s degree from NDSU and a Master of Architecture degree from Pratt Institute, New York. She comes to NDSU from private practice, having worked previously in Dallas, New York and Fargo.

Akhatov graduated from Lomonosov University of Moscow with a master’s degree in physics and a doctorate in mechanical engineering. Before joining the NDSU faculty, he had appointments at the University of Ufa in Russia, Institute of Mechanics of the Russian Academy of Sciences, Goettingen University in Germany, Boston University and Rensselaer Polytechnic Institute. His research interests are in the field of fluid dynamics. They include nonlinear dynamics and acoustics of bubbles, bubble clouds and bubbly liquids and applications to chemical technology, material science and biotechnology;

heat and mass transfer phenomena in multiphase systems and non-Newtonian fluids and applications to petroleum industry, chemical technology, environmental science and safety.

Before joining NDSU, Karami was a visiting professor at the University of Wyoming and Washington State University. From 1985-2001, he was a professor of mechanical engineering at Shiraz University, Iran. Prior to that, he was a research fellow at University of Wales in Cardiff, United Kingdom. His bachelor’s, master’s and doctoral degrees come from Imperial College of Science and Technology, London. Karami is working on micromechanics modeling of composite materials, and also on computational nano-composite analysis. He is also involved with FEM biomechanics analysis of brain injury and its modeling. He has authored more than 100 papers in journals, in addition to two books and numerous papers in national and international conference proceedings.

Zhong earned her doctorate from Beijing University of Aeronautics and Astronautics. After graduation, she has been teaching and conducting research on polymer and composite materials and the processing technologies. She was promoted to professor in 1999, becoming one of the youngest professors in China. Zhong previously held research fellow appointments at Tuskegee University and Vanderbilt University’s Institute for Nano-scale Science and Engineering. She has published more than 60 peer-reviewed papers, and also presented more than 30 papers at international and national conferences.

Mascaro is originally from Nyack, N.Y. He received bachelor’s degrees from Houghton College, Houghton, N.Y., and Clarkson University, Potsdam, N.Y. He received a master’s degree and doctorate in mechanical engineering from the Massachusetts Institute of Technology, Cambridge, Mass. Before joining NDSU, he was a postdoctoral associate at MIT’s Department of Mechanical Engineering, conducting research in the d’Arbeloff Laboratory for Information Systems and Technology. His research interests include robotics and mechatronics, system dynamics and control, actuators and sensors.

Tjokroamidjojo earned his bachelor’s and master’s degrees at the University of Wisconsin, Madison, and his doctorate at the University of Arkansas.

Prior to joining NDSU, Nassar was at Bradley University in Peoria, Ill., where he taught and conducted research projects for the Illinois Department of Transportation and Caterpillar. He received a bachelor’s and master’s degree at Cairo University and his doctorate from Virginia Tech. Nassar worked for in the construction industry for several years. He has also taught a number of industry workshops on scheduling and estimating, and published several papers in that area. His research interests include computer applications to cost analysis and estimating, as well as simulation and visualization.

Zayed comes to NDSU from Zagazig University, Zagazig, Egypt, where he was an assistant professor of construction engineering and management. He also worked part-time with the EMEND Construction Co., Egypt, training personnel how to apply construction management techniques. Zayed was a visiting assistant professor at the University of Cincinnati, Ohio, during 2001-02. He received his doctorate from Purdue University, West Lafayette, Ind. His research interests include infrastructure management systems, simulation and artificial intelligence applications to construction and underground construction performance assessment.

Lima received his bachelor's degree from the Federal University of Bahia, Brazil, his master's degree in electrical engineering from the State University of Campinas, Brazil, and his doctorate in electrical engineering from the University of Maryland, Baltimore County. His areas of interest include photonics, electronics and nanotechnology.

Khan named to cereal chemists board

Khalil Khan, professor of cereal and food sciences, recently was elected to the American Association of Cereal Chemists (AACC) board of directors.

The American Association of Cereal Chemists is an international organization of nearly 3,500 grain scientists and other professionals who study the chemistry of cereal grains and their products or work in related fields.

Khan started at NDSU in 1981 and has been a member of the AACC since 1973. He served as an associate editor for the *Journal of Cereal Chemistry*, and on several association committees. His research interests include structure-function relationships of wheat proteins to bread and pasta making and cereal variety identification through biochemical techniques. He received his master's and doctoral degrees from the University of Manitoba, Winnipeg, Canada.

McIntyre receives 'Best Paper' award

Charles McIntyre, associate professor of construction management and engineering, recently received the Edward P. Mikol Best Paper award for "Assessing Problem-Based Learning in an Engineering Capstone Course." The award was presented during the American Society for Engineering Education (ASEE) North Midwest Regional Conference held Oct. 9-11 in Ames, Iowa.

The award is based on the quality of both the written paper and the oral presentation. McIntyre's paper was published in proceedings of the 2002 ASEE North Midwest Section Regional Conference. McIntyre currently serves as the treasurer/secretary of the North Midwest Section and is the president-elect for 2004-06.

Criminal justice graduate students to present at national conference

Four students in NDSU's criminal justice doctoral program have been selected to make presentations at the annual American Society of Criminology (ACS) national conference scheduled for November in Denver.

Jeff Bry, Fargo; Melissa Krchnavy, Fargo; Mike Kutzke, Moorhead, Minn.; and Fredrik Leinfelt, Stockholm, Sweden, were chosen to give presentations on their research after a competitive paper submission process.

ASC is the primary national professional organization for those who study criminology. Graduate students and faculty researchers from around the country and the world present their work at the annual conference.

Kim presents paper at New York Stock Exchange

Jang-Chul Kim, assistant professor of finance, is scheduled to present and defend "Investor Recognition, Liquidity, and Valuation Effects of Switching Exchanges: Are Decimalization and Market Reforms Really the Turning Points?" at the New York Stock Exchange (NYSE) on Oct. 22. The paper's co-author is Pankaj K. Jain, Department of Finance, Insurance and Real Estate, University of Memphis.

The paper finds that stocks that switch from Nasdaq to the NYSE or from AMEX to the NYSE experience positive cumulative abnormal returns (CARs), improvements in liquidity and greater investor recognition even in very recent times. Analogously, liquidity deterioration was observed for firms switching from NYSE to Nasdaq or AMEX. The paper found the switching effect has not reversed or subsided after decimalization as suggested in several recent studies. The research found that firms experience reduction in transaction costs when they switch from Nasdaq to NYSE before decimalization. This pattern continues after decimalization for smaller and medium-sized firms. The only exceptions are very large firms and very large orders, which face higher transaction costs after switching to NYSE in the post-decimalization era. Listing effects on liquidity survive even after controls are made for changes in volumes, number of trades and volatility. The stock price valuation enhancements (positive CARs) are positively and significantly correlated with greater investor recognition in all periods and model specifications used in the study; but the positive relationship between CARs and liquidity improvements emerges only after decimalization.

Events

Flu shot clinic offered

Flu vaccinations will be available to NDSU faculty, staff and students, during a one-day clinic scheduled for 9 a.m.-4:30 p.m. Thursday, Oct. 30, in the Memorial Union Ballroom. Appointments are not necessary.

Shots are \$15 each, and may be paid by cash or check. Students may bill the cost to their student account.

Any questions should be directed to Barb Lonbaken, director of Student Health Service and Wellness Education, at 1-6315 or barb.lonbaken@ndsu.nodak.edu.

Bison Halloween Party scheduled

The NDSU Student Athlete Advisory Council is sponsoring the annual "Bison Halloween Party" scheduled for 4-6 p.m. Sunday, Oct. 26, in the Bison Sports Arena.

Designed as a fun event for the entire family, the party will include games, candy and prizes. Participants will have the opportunity to meet Bison players, coaches, trainers and athletic department administrators.

Persons attending are encouraged to wear Halloween costumes. The event is free and open to the public.

NDSU to celebrate 30th 'Harvest Bowl'

Festivities for the 30th annual NDSU Harvest Bowl are scheduled for Friday, Oct. 31-Saturday, Nov. 1.

The Harvest Bowl program annually recognizes the success, dedication and hard work of outstanding agriculturists in 53 counties in North Dakota and five counties in Minnesota. Through the years, more than 1,800 agriculturists have been recognized and more than \$63,000 in scholarship dollars have been awarded to NDSU student athletes with agricultural backgrounds. For a complete list of honorees visit www.ndsu-alumni.com and click on Events/Reunions.

Four scholarships are awarded to outstanding male and female athletes. The 2003 Harvest Bowl Scholarship recipients are Katie Lorenz and Derek Arndt. Lorenz, Langdon, N.D., is a member of the women's basketball team. Arndt is a tight end on the Bison football team and is from LaMoure, N.D. The Bob and Darlene Yaggie Football Scholarship goes to Justin Monson, an offensive tackle from Gardner, N.D. Receiving the Bob Lauf Memorial Scholarship is Tim Erickson, Fergus Falls, Minn., who is a wide receiver for the Bison.

An agri-business award recipient also is chosen annually. The award recognizes individuals who have distinguished themselves in the field of agriculture and business in the state of North Dakota and beyond. John R. (Jack) Dahl, a Gackle, N.D., cattle rancher, will receive the 2003 Agri-business Award.

Dahl graduated from NDSU in 1951 with a bachelor's degree in animal science. He began his career on his ranch with 120 cows plus 150 share cows, all Herefords. From 1952-54 he served in the U.S. Army. After his return, he expanded his business, Dahl Land and Cattle Co., to the current herd of 700 cows that includes purebred Salers, Red Angus and South Devon, plus a commercial cowherd.

A recognition dinner and dance are scheduled for the Fargo Holiday Inn on Friday, Oct. 31. The social begins at 6 p.m., followed by dinner at 6:45 p.m. and a dance at 9 p.m. The cost is \$23 per adult and \$8 for children up to 8 years old. On Saturday, Nov. 1, honorees will participate in educational sessions on the NDSU campus and attend the Harvest Bowl football game, which features the Bison playing the University of South Dakota.

For tickets and information on Harvest Bowl activities, visit the NDSU Alumni Association Web site at www.ndsualumni.com or call 1-6800 or e-mail marilyn@ndsualumni.com.

Lifestyle improvement brown bag set

"Top 10 Ways to Improve Your Lifestyle," a brown bag seminar sponsored by the YMCA of NDSU, is scheduled for 12:30 p.m. Tuesday, Oct. 28, in the Memorial Union Peace Garden Room.

A panel of multicultural students studying pharmacy, nursing, nutrition and counseling will share their "top 10" ideas for adopting and maintaining a healthy lifestyle.

For more information, call 1-5225.

Graduate seminar scheduled

Joe Crenshaw, director of technical services for American Protein Co. Inc., is scheduled to present an animal and range sciences graduate seminar titled "Action of Plasma Protein in Animal Development" at 3 p.m. Friday, Oct. 24, in Hultz 104.

Crenshaw earned a bachelor's degree from the University of Tennessee and a master's degree and doctorate from the University of Nebraska. He was a member of the NDSU faculty from 1985-93. Since leaving campus, Crenshaw has worked for MoorMan's Manufacturing as a swine research manager, worked in agricultural development and consulting in Laos and was a visiting scientist at the University of Wisconsin, Madison.

Baroque Festival scheduled

The NDSU Department of Music has planned a Chamber Concert for 7:30 p.m. Tuesday, Nov. 11, at First Presbyterian Church, Fargo, and a Festival Concert for 7:30 p.m. Saturday, Nov. 15, in Festival Concert Hall. Both concerts are held at part of NDSU's Baroque Festival.

The Chamber Concert will feature performances by the F-M Chamber Chorale, the NDSU Brass Quintet and soloists Katherine Ellingson, Amy Schneider, Robert Jones and Josh Grover. The Festival Concert will feature the NDSU Concert Choir and soloists Neil Mueller, Darcy Bultema, Schneider, Jerry Elsbernd and Jones. Jo Ann Miller, professor of music, is the festival's artistic director. Michael J. Weber, associate professor of music, also is scheduled to conduct.

Single event tickets are \$15 for adults, \$12 for seniors and \$8 for students. Tickets for both events are \$25 for adults, \$12 for seniors and \$15 for students. Tickets are available by calling the fine arts box office at 1-7969. For more information, call 1-9564.

Molecular modeling workshops planned

The Computational Chemistry and Biology Network (CCBN) has scheduled two workshops on using Sybyl molecular modeling software for 1-5 p.m. Wednesday, Oct. 22, and Wednesday, Oct. 29, in the silicon graphics cluster, Sudro 7.

The Oct. 22 workshop consists of an introductory course to the software. The Oct. 29 workshop will focus on the docking of small molecule ligands to protein binding sites.

The primary purpose of the CCBN is to increase the use of computational methods in biomedical research. Faculty and students who participate in research involving an analysis of ligand-macromolecule interactions are invited to attend.

To register, contact Kim Hansen at khansen@medicine.nodak.edu or (701) 777-6376.

The hands-on workshop also will be available via teleconference to the CCBN site at the University of North Dakota. The UND site, coordinated by Kathryn Thomasson, associate professor of chemistry, focuses on macromolecular interactions. The NDSU site, coordinated by Stefan Balaz, professor of pharmaceutical sciences, specializes in ligand-macromolecule interactions.

Funding for hardware, software, maintenance and system administration is provided by the National Institute of Health's Biomedical Research Infrastructure Network project. More information on the project is available at www.med.und.nodak.edu/brin/.

'Highly Qualified Teachers' presentation scheduled

The Moorhead-Fargo chapter of Phi Delta Kappa will sponsor a presentation on "Highly Qualified Teachers," as defined by the provisions of the federal No Child Left Behind Act. The presentation is scheduled for 4:30 p.m., Wednesday, Oct. 22, in room 112C, West Fargo High School, 801 9th St. E., West Fargo, N.D.

Janet Welk, North Dakota Standards and Practices Board, will discuss the implications for teachers, including teacher options required by the act.

Thai waste management executives to visit NDSU

Wasant Pongsapich, executive director of Thailand's National Research Center for Environmental and Hazardous Waste Management, and deputy director Somporn Kamolsiripichaiporn are scheduled to visit NDSU and present information on their research at 2 p.m. Friday, Oct. 24, in the Engineering Center's second floor conference room. A roundtable discussion on collaboration possibilities is scheduled to follow at 3 p.m. The event is open to the public.

Shorts and Reminders

Union Food Court specials for Oct. 22-29

Soup of the day

Wednesday: wild rice and vegetarian vegetable
Thursday: beef noodle and chicken tortilla
Friday: beef barley and broccoli cheese
Monday: turkey rice and California medley
Tuesday: chicken noodle and corn chowder
Wednesday: vegetable beef and baked potato

The Corner Deli

Wednesday: roast beef
Thursday: turkey club
Friday: corned beef
Monday: turkey
Tuesday: beef and cheddar wrap
Wednesday: ham

A La Carte

Wednesday: lasagna trio
Thursday: big Texan salad
Friday: Swedish meatballs
Monday: broasted chicken
Tuesday: fajita bar
Wednesday: carved roast beef

Pizza Express

Wednesday: meatball
Thursday: southwestern chicken
Friday: Red River
Monday: once around the kitchen
Tuesday: Tuscany
Wednesday: creamy garlic chicken

The Union Grab and Go

Wednesday: roasted turkey
Thursday: beef broccoli
Friday: Swedish meatballs
Monday: grilled chicken alfredo
Tuesday: sweet and sour chicken
Wednesday: broasted chicken

More Than A Burger

Wednesday: mushroom Swiss
Thursday: smothered chicken
Friday: double cheeseburger
Monday: western burger
Tuesday: cordon bleu fillet
Wednesday: bacon cheeseburger

Items are subject to change without notice. Call the Dining Services Lunch Line at 1-9501 to check out all of our daily specials. Questions or comments may be dropped in the suggestion boxes located in each dining center and the Union Food Court or call Kristina at the Union Buffet at 1-8122.

Positions Available

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

RSVP Project Coordinator
Non-benefited; 12 months; 12 hours/week-flexible
Temporary position with possibility of continuation/benefits pending funding
Distance and Continuing Education
Housed at St. Joseph Hospital, Minot, N.D.
\$9/hour
Open until filled

Lead Food Service Worker/#1048
10 months; 40 hours/week
6 a.m.-2:30 p.m.
M-F; weekends as necessary
Dining Services-Residence Dining Center
\$8/hour
Open until filled
Position available Nov. 3

State Coordinator-National History Day
11 months; half-time
History
\$18,000+/year
Oct. 27

Head of Technical Services/#0518
NDSU Libraries
\$42,000+/year
Nov. 3

Manager, Retail Operations
Dining Services
Salary commensurate with experience
Open until filled

Potato Research Specialist
Plant Sciences
\$22,000+/year
Oct. 22

Research Specialist
Center for Nanoscale Science and Engineering
Salary commensurate with experience
Oct. 27

Research Specialist
Carrington Research Extension Center
\$33,000 minimum/year, commensurate with experience
Nov. 12

Assistant Director of Seedstocks/#4259
Plant Science
Salary commensurate with experience
Open until filled

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

Calendar

October

Through Nov. 2 Visual arts alumni exhibit, Reineke Visual Arts Gallery

Through Dec 19 "Lo Real Maravilloso: the marvelous reality" exhibit by Lourdes Hawley. President's Gallery

- 22 YMCA of NDSU—Brown bag seminar, "College Student Drinking: Is It Really a Problem?" noon, Memorial Union Peace Garden Room
- 22 Re-accreditation open forum "Diversity and Governance," 1 p.m., Memorial Union Meadow Lark Room
- 22 Soil science—Heldur Hakk, ARS research chemist, "The Remediation of Endogenous Hormones in Manure via Aerobic Composting," 3 p.m., Walster 217
- 23 Entomology—Kristi Biewer, Cass County Weed and Vector Control, "Mosquito Bytes—Painless Information About Vector Control," 1 p.m., Northern Crop Science Laboratory conference room
- 23-25 Little Country Theatre production "You Can't Take It With You," 7:30 p.m., Askana Auditorium
- 24 Animal and range sciences—Joe Crenshaw, American Protein Co. Inc., "Action of Plasma Protein in Animal Development," 3 p.m., Hultz 104
- 24 Botany/zoology—Polly Olson, lecturer in biological sciences, "NDSU Respiratory Care Program," 3 p.m., Stevens 230
- 24 Psychology—Eduardo Salas, "The Science of Team Performance and Training: What Do We Know So Far...", 3:30 p.m., Ladd 107 (location change)
- 24 Volleyball vs. St. Cloud State, 7 p.m., Bentson Bunker Fieldhouse
- 25 Volleyball vs. Minnesota State University, Mankato, 7 p.m., Bentson Bunker Fieldhouse
- 26 Bison Halloween Party sponsored by NDSU Student Athlete Advisory Council, 4-6 p.m., Bison Sports Arena
- 28 YMCA of NDSU—Brown bag seminar, "Top 10 Ways to Improve Your Lifestyle," 12:30 p.m., Memorial Union Peace Garden Room

- 29 Criminal justice—graduate student research presentations, "Youth Prisons," "Media and Crime" and "Police Use of Force," 3 p.m., Memorial Union University Chamber
- 29 Soil science—Jimmie Richardson, acting chair and professor, "Peru-The Sights, Sounds, Society and Soils," 3 p.m., Walster 217
- 29 Physics—Mizuho Schwalm, University of North Dakota, "How Discrete Exterior Calculus Works," 4 p.m., South Engineering 208
- 30 Flu shot clinic, 9:30 a.m.-4 p.m., Memorial Union Ballroom. Shots are \$15. No appointment needed.
- 31 Botany/zoology—Chris Beachy, "Developmental Biology of Salamanders," 3 p.m., Stevens 230
- 31 Gary Nickell, Minnesota State University Moorhead, "Predicting Food Safety and Security Intentions and Beliefs," 3:30 p.m., Minard 209
- 31 International and multicultural dance party, 6-11 p.m., Memorial Union Dakota Ballroom
- 31 Jazz Ensemble and Jazz Combo concert, 7:30 p.m., Festival Concert Hall

November

- 1 Football vs. University of South Dakota (Harvest Bowl), 1 p.m., Fargodome
- 1 Choral concert, 7:30 p.m., Festival Concert Hall
- 2 Gold Star Marching Band concert, 2 p.m., Festival Concert Hall
- 2 Graduate student recital—Christine Hitt, piano, 4 p.m., Beckwith Recital Hall
- 3 NDSU Visual Arts Day, NDSU Music Day and NDSU Theater Arts Day. Call 1-7932 for more information.
- 5 YMCA of NDSU—Brown bag seminar, "Student Perspectives: Implications of Racism in Daily Life," noon, Memorial Union Prairie Rose Room
- 5-6 Memorial Union Gallery fine craft demonstrations and sales, 10 a.m.-5 p.m., Memorial Union Alumni Lounge.
- 6 Entomology—James Buckner, research chemist, USDA-ARS Biosciences Research Laboratory, Fargo, "Whiteflies: Their Cuticular Lipids and Interactions with Host Plants and Parasitoids," 1 p.m., Northern Crop Science Laboratory conference room
- 7 Botany/zoology—Jason Dunham, Rocky Mountain Research Station-Boise Forestry Sciences Laboratory, "What Does Landscape Ecology Have to do with Fish?" 3 p.m., Stevens 230
- 7 Latin American vocalist Erika Luckett in concert, 7:30 p.m., Memorial Union Gallery. Tickets are \$7 general admission and \$5 for NDSU students and children under age 12. Tickets are available at the Memorial Union ticket office.

- 10 Baroque Festival student recital, 7:30 p.m., Beckwith Recital Hall
- 11 Veteran's Day holiday—university closed
- 11 Volleyball vs. University of Minnesota, Crookston, 7 p.m., Bentson Bunker Fieldhouse
- 11 Baroque Festival chamber concert, 7:30 p.m., First Presbyterian Church, Fargo
- 12 Staff Senate meeting, 9:30 a.m., Memorial Union Peace Garden Room
- 12 YMCA of NDSU—Brown bag seminar, "Protein, Weigh-Ins, Carbs and the South Beach-You Decide!" noon, Memorial Union Peace Garden Room
- 13 Entomology—Thomas Sappington, USDA-ARS Corn Insects and Crop Genetics Research Unit, Ames, Iowa, "Research Windows in to the Weird and Wonderful World of European Corn Borer Moth Behavior and Ecology," 1 p.m., Northern Crop Science Laboratory conference room
- 13 Re-accreditation open forum "General Education and Technology and Learning," 1 p.m., Memorial Union University Chamber. (Rescheduled from Nov. 18)
- 14 Woodlands and High Plains Powwow silent auction, Alumni Center
- 15 Football vs. Concordia University, St. Paul, 1 p.m., Fargodome
- 15 Baroque Festival main stage concert, 7:30 p.m., Festival Concert Hall
- 17 Lively Arts Series presents the American Brass Quintet, 7 p.m., Festival Concert Hall. Tickets are \$13 for adults, \$10 for senior citizens and NDSU employees, \$7 for non-NDSU students and children, and \$6 for NDSU students. Tickets are available at the Memorial Union Ticket Office.
- 19-Dec. 18 Juried student art exhibit, Memorial Union Gallery. Reception 4 p.m. Wednesday, Nov. 19.
- 19 Re-accreditation open forum "General Education and Technology and Learning," 1 p.m., Memorial Union Meadow Lark Room
- 21 Botany/zoology—Tony Zera, University of Nebraska, "Hormone Regulation of Life History in Crickets," 3 p.m., Stevens 230
- 20 Entomology—Richard Edwards, Purdue University, West Lafayette, Ind., "Western Corn Rootworm in Europe: A Battle Being Fought on a Different Level," 1 p.m., Northern Crop Science Laboratory conference room
- 20 Opera workshop performance, 7:30 p.m., Beckwith Recital Hall
- 26 YMCA of NDSU—Brown bag seminar, "Toxic Stress: Choose Your Weapon," noon, Memorial Union Peace Garden Room
- 27 Thanksgiving holiday—university closed

December

- 3 YMCA of NDSU—Brown bag seminar, "HIV/AIDS... What Everyone Should Know," noon, Memorial Union Peace Garden Room
- 3 Staff free preview night of Little Country Theatre's production of "Proof," 7:30 p.m., Walsh Studio Theatre. Call 1-9442 for tickets.
- 4 Entomology—George Heimpel, University of Minnesota, St. Paul, "Biological Control of the Soybean Aphid," 1 p.m., Northern Crop Science Laboratory conference room
- 4-6 Little Country Theatre presents "Proof" by David Auburn, 7:30 p.m., Walsh Studio Theatre
- 4-7 Memorial Union Gallery gift nook holiday sale, 9:30 a.m.-6 p.m., Memorial Union Alumni Lounge.
- 4-7 Madrigal Dinners, 6:30 p.m., Festival Concert Hall lobby
- 8 Jazz Ensemble concert, 7:30 p.m., Festival Concert Hall
- 10 Staff Senate meeting, 9:30 a.m., Memorial Union Peace Garden Room
- 10 YMCA of NDSU—Brown bag seminar, "Why Your New Year's Resolutions Won't Work!" noon, Memorial Union Peace Garden Room
- 10 Concert Band and Wind Ensemble concert, 7:30 p.m., Festival Concert Hall
- 11 Entomology—Louise Vet, Netherlands Institute of Ecology, Nieuwersluis, Netherlands, 1 p.m., Northern Crop Science Laboratory conference room
- 11 Percussion Ensemble concert, 7:30 p.m., Festival Concert Hall
- 12 Visual arts ceramic and PEARS print sale, noon-6 p.m., visual arts department.
- 12 Winter choral and Brass Ensemble concert, 2 p.m., Festival Concert Hall
- 18 Entomology—John Foster, University of Nebraska-Lincoln, 1 p.m., Northern Crop Science Laboratory conference room
- 19 Commencement, 4 p.m., Fargodome

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