

## weatherhead school of Management



photo by Mike Sands

## AUTOnomy

The Case Western Reserve University Weatherhead School of Management's Bold Thinkers Series featured J. Byron McCormick (second from left), executive director of fuel cell technology and commercialization at General Motors (GM). Standing behind the "AUTOnomy," GM's revolutionary fuel cell concept vehicle, are Scott Shane, professor of economics at Weatherhead; McCormick; Tom Zawodzinski, Ohio Eminent Scholar for Fuel Cell Research and F. Alex Nason Professor of Engineering at the Case School of Engineering; and Jose Antonio Rosa, assistant professor of marketing at Weatherhead. In his talk, McCormick discussed meeting the business challenges inherent in translating bold ideas into real-world products. GM has invested \$1 billion toward developing a commercially viable fuel cell vehicle.

## school of Medicine

# Case to create drug to treat eye disease

by George Stamatis (george.stamatis@case.edu)

Under a new \$4.7 million grant from the National Eye Institute, researchers from the Case Western Reserve University School of Medicine and University Hospitals of Cleveland (UHC) hope to develop in five years a drug ready for human clinical trials to treat myasthenia gravis, an autoimmune disease that weakens muscles, affects vision—and in the most severe cases—puts patients on artificial ventilation.

According to the National Eye Institute, this is the largest single project grant it has awarded to an Ohio institution.

The new grant to Henry J. Kaminski, a professor in the department of neurology and a member of the Visual Sciences Research Center at Case and UHC, brings together a group of experts well-versed in the disease, muscle biology, genetics and drug development who are associated with Case, UHC and the Louis Stokes Cleveland Department of Veterans Affairs Medical Center.

Among the unique features of this research project is that it will be the first to apply genomic analysis to this disorder and will be the first to comprehensively investigate eye muscle involvement by the disease.

In autoimmune diseases, the immune system malfunctions and mistakes a part of the body as foreign and mounts an attack on it. According to Kaminski, in myasthenia gravis the immune system produces antibodies that attack the receptors on the muscle side of the neuromuscular junction. The antibodies cause damage by activating another part of the immune system called the complement system, which is a group of proteins designed to protect against infectious invaders.

"We hope to design a drug that inhibits complement activation specifically at the nerve-muscle communication point," said Kaminski. "Although there currently are several treatments that are beneficial in treating the disease, they have numerous adverse effects. We hope our treatment would be a more effective one with less side effects."

Although the disease is relatively rare with a prevalence of about 400

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## case school of Engineering

# New implantable device to offer patients relief from sleep apnea

by Marci E. Hersh (marci.hersh@case.edu)

Help is on the way for loud, heavy snorers with obstructive sleep apnea (OSA).

Researchers at Case Western Reserve University's Case School of Engineering are developing an implanted medical device slightly larger than a postage stamp to help 20 million Americans who suffer from the sleep disorder.

The device will operate like a heart pacemaker.

"We would like to see OSA syndrome patients sleep better, feel better and lead better and healthier lives," said Dominique Durand, the lead researcher and professor in

biomedical engineering and neurosciences.

Those who suffer from OSA experience significant breathing cessations causing an array of complications such as a decrease in blood oxygen levels, sleep fragmentation, irregularities in the heart's normal beating pattern and hypertension.

"This serious disorder can become a major health risk, causing significant lung, neurocognitive deficits and heart disease over time," Durand said.

Although OSA is associated with known chronic diseases such as obesity, hypertension, heart failure, stroke, sexual dysfunction and depression, only a short list of remedies exists.

The primary treatment is an external mask that forces oxygen into the airway and provides continuous oxygen pressure (CPAP).

The tiny device underway at Case is designed to offer relief to those who find the current CPAP masks uncomfortable. It will consist of an electrode, several leads and a 3cm diameter stimulator that is surgically implanted below the ear in the neck where it stimulates a targeted part of the hypoglossal nerve, which controls movement of the muscles involved in maintaining the opening of the upper airways.

Minor surgery under the care of a certified otorhinolaryngologist will be involved when

the device reaches the commercial market.

The research is being conducted at the Case Neural Engineering Center. Durand is collaborating with, from Case, Kingman P. Strohl, director of the Center for Sleep Disorders Research, professor of medicine and professor of anatomy; Pierre Lavertu, associate professor of otolaryngology and head and neck surgery and oncology; and Dustin Tyler, a research associate in biomedical engineering. In addition, Anthony Carparso, a biomedical engineer, is involved in the project, and a local company, NDI Medical, also is collaborating in the development of the new device.

## college of Arts and Sciences

# Köll fends off frostbite to explore history of early Chinese industry for new book

by Susan Griffith (susan.griffith@case.edu)

Elisabeth Köll wore four layers of clothing to ward off the bone-chilling cold that seeped through the walls of the municipal archives in Nantong, China.

While the Case Western Reserve University business and social historian read 30,000 files from the Dasheng Cotton Mill, she would take breaks every half hour to flex her body to relieve the numbness—but she still suffered frostbite on her knuckles.

Her pain was not without gain.

Huddled over the company's records, Köll discovered new information about the early roots of industrialization in China and the Eastern country's adaptation of the Western concept of the corporation.

According to Köll, the records revealed that the Chinese industrial firm is a combination of the family enterprise with aspects of the Western corporation, such as shareholders and boards of directors, but is controlled by family and social networks. The Chinese version also exhibits a



Elisabeth Köll

lower standard of accountability compared to its Western counterpart, she said.

Findings from Köll's yearlong stay in China in 1995 and from subsequent visits have resulted in her first book "From Cotton Mill to Business Empire: The Emergence of Modern Enterprises in China," published this month by Harvard University's East Asian Monographs series.

The arrival of the book comes at another important milestone in Köll's career. In 2004, she will assume the helm, as president, of

the 400-member Historical Society for 20th Century China during the society's biennial meeting in Vienna, Austria.

Köll, 38, becomes the first woman to preside over the international organization that joins together political, social, economic, cultural and gender historians interested in China from the late 19th century through contemporary times. The society, founded in 1983, is an affiliation of the American Historical Society. Köll received a W. P. Jones Grant from the university to

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cases in one million people, it is the best-understood autoimmune disease, according to Kaminski.

"Understanding this disease will likely provide new insights of other disorders," he said.

The grant brings together a diverse group of scientists with

individual interests in: complement (Edward Medof and Feng Lin, both in the pathology department), genomic analysis (John Porter, in the neurology department), eye movement control (John Stahl, in the neurology department), the question of understanding myas-

thenia gravis (Kaminski) and drug development (Charles Hoppel in the pharmacology department).

Medof already has developed complement inhibitors, and during the first three years of the grant, the researchers will test several ways to adapt these inhibitors to precisely

target the nerve-muscle communication points. In the last two years of the study, they will test their lead drug for safety.

As part of their work, Porter will use sophisticated DNA analysis to evaluate precisely how muscles are affected on the genetic level by

myasthenia gravis. He will use DNA microarray analysis, which can identify nearly all genes functioning (or expressed) in a tissue.

People with myasthenia gravis may call UHC's Myasthenia Gravis Center, directed by Kaminski, at 216-844-3744.

# Calendar

The deadline for submissions to each issue of Campus News is 10 days prior to the publication date. Please check the deadline schedule at <http://www.case.edu/pubs/cnews/0304pubs.htm>.

Submit your items to the University and Campus News calendars online at <http://www.case.edu/CWRUEvents/>, or submit items only for the Campus News calendar to Maria Wolf via e-mail at [mew15](mailto:mew15), via voice at 368-4440 or in person or via campus mail to 14 Adelbert Hall LC: 7017.



## Lunchtime meetings

**Tuesday, December 16** . . . Video on Wheels: "The Difficult Guest." 209 Crawford Hall, noon. Contact: [tina.jurcin@case.edu](mailto:tina.jurcin@case.edu), 368-2834.



## Seminars, meetings & conferences

**Thursday, December 11** . . . Center for Women: Women's Creative Writing Group. 303 Thwing Center, 7 p.m. <http://www.case.edu/provost/centerforwomen>. Contact: [ginnette.boiyarko@case.edu](mailto:ginnette.boiyarko@case.edu), 368-0985.

**Thursday, December 11** . . . Musculoskeletal Research Seminar: "Small Leucine Rich Proteoglycan Knockout Mice: New Models for Musculoskeletal Diseases." Marian F. Young. Sponsored by Orthopaedic Surgery, Case and Cleveland Clinic Orthopaedic Research. 105 Biomedical Research Building, 4 p.m. Contact: [Valerie.Schemedien@uhhs.com](mailto:Valerie.Schemedien@uhhs.com).

**Monday, December 15** . . . Physiology and Biophysics Seminar Series: "Cellular determinant of fibrillation dynamics." Guy Salama. E531 School of Medicine, 4:30 p.m.

**Tuesday, December 16** . . . Diversity Awareness Workshop. Registration required. 13 Crawford Hall, 9 a.m. to 1 p.m. Contact: [rosa.garnett@case.edu](mailto:rosa.garnett@case.edu).

**Wednesday, December 17** . . . Neurosciences Seminar: "The Good, the Bad and the Ugly of Prion," Man-Sun Sy. E609 School of Medicine, noon. <http://neurowww.cwrwu.edu>. Contact: [gina.ventre@case.edu](mailto:gina.ventre@case.edu), 368-6252.

**Thursday, December 18** . . . Center for Women Act III Roundtable: A discussion group for women in or nearing retirement, 309 Thwing Center, 4 p.m. <http://www.case.edu/provost/centerforwomen>. Contact: [ginnette.boiyarko@case.edu](mailto:ginnette.boiyarko@case.edu), 368-0985.

**Friday, December 12** . . . "Development and Performance of Detectors for the Cryogenic Dark Matter Search with an Increased Sensitivity Based on a Maximum Likelihood Analysis of Beta Contamination." Donald D. Driscoll, Jr., physics. Adviser: Daniel S. Akerib. Miller Room, Rockefeller Building, 10:30 a.m.

**Tuesday, December 16** . . . "Initial Mechanistic Characterization of Escherichia Coli Lon Protease," Jennifer Thomas-Wohlever, chemistry. Adviser: Irene Lee. 405 Clapp Hall, 10:30 a.m.

**Tuesday, December 16** . . . "What are People Doing to Prepare for Retirement? Structural, Personal, Work and Family Predictors of Planning," Amy Dan, sociology. Adviser: Eleanor Stoller. 201 Hillel Foundation, 1 p.m.



## Other events

**Thursday December 11** . . . Vanguard Individual Retirement Counseling Sessions. Reservations required. You may register online. 209 Crawford Hall, 8:30 a.m. to 5:30 p.m. <http://www.case.edu/finadmin/humres/benefits/lon1.html>. Contact: 1-800-662-0106, ext. 14500.

**Tuesday, December 16** . . . Center for Women Film Showing: "Legally Blonde." Discussion to follow. Pizza, popcorn and soda provided. 309 Thwing Center, 8 p.m. <http://www.case.edu/provost/centerforwomen>. Contact: [ginnette.boiyarko@case.edu](mailto:ginnette.boiyarko@case.edu), 368-0985.

**Wednesday and Thursday, December 17 and 18** . . . TIAA-CREF Individual Retirement Counseling Sessions. Reservations required. 209 Crawford Hall, 8 a.m. to 5 p.m. Contact: Kay Fulk or Alisia Powell, 1-877-209-3138.

**Friday, December 19** . . . Center for Women Film Showing: "9 to 5." Discussion to follow. Refreshments provided. 309 Thwing Center, 4 p.m. <http://www.case.edu/provost/centerforwomen>. Contact: [ginnette.boiyarko@case.edu](mailto:ginnette.boiyarko@case.edu), 368-0985.

**Thursday and Friday, December 11 and 12** . . . Giving Tree. These are the last two days to pick up an ornament and provide a gift for a child in need this holiday season. All purchased gifts need to be returned on December 15 or 16. Atrium, Thwing Center. Contact: Student Activities, 368-2679.

**Now through December 19** . . . "Sweeten the Season." Undergraduate Student Government and the Intercultural Dialogue Group are selling paper candy canes for \$1. The proceeds will benefit the Multiple Sclerosis Association of America. Student Activities Office, Thwing Center.

**Wednesday, December 17** . . . Final exams end.

**Friday, December 19** . . . Final grades due.



## Concerts

**Thursday, December 11** . . . End of Semester Music Showcase: New works by Cleveland Institute of Music (CIM) student composers, performed by the CIM New Music Ensemble. Cleveland Institute of Music, 8 p.m. <http://cim.edu>. Contact: 791-5000.



## Dissertation defenses

**Thursday, December 11** . . . "Environmental and Medicinal Studies Utilizing in Silico Methodology," Scott E. Stuart, chemistry. Adviser: Gilles Klopman. 123 Millis, 1 p.m.



## Deadlines

**Tuesday, December 16** . . . Monthly payroll vouchers due. 10 a.m.



## Computer classes

Registration and up to date class information for classes listed below is available online at <http://kslearn.case.edu>. If you encounter technical problems or error messages with the process call 368-2991. All classes are held at 215 Kelvin Smith Library unless otherwise noted.

**Thursday, December 11** . . . Flash: Advanced. 1:30-4:30 p.m.

**Monday, December 15** . . . MS Access Topics: Generating Reports, 8:30 a.m. to noon; Power Point Presentations, 1-4 p.m.

# FOR YOUR INFORMATION

## Student art exhibited at studio

Case Western Reserve University's College of Arts and Sciences is hosting the annual student "Semester in Review" art exhibit through December 12 at the Art Studio.

The exhibit includes Case student paintings, drawings, ceramics, photography, enameling and textile art.

## Winter clothing to be collected

The Student National Medical Association of the Case Western Reserve University School of Medicine is conducting a winter clothing drive through December 17.

The group is accepting coats, sweaters, blankets and other items of winter clothing in good condition.

Donation boxes are located by the elevators in the medical school and in Thwing Center. All items will be donated to the United Hearts Life Mission Center and Salvation Army Emergency Shelter.

For details, contact Valerie Lopes Pires at [valerie.pires@case.edu](mailto:valerie.pires@case.edu).

## Volunteers needed for concerts

The Cleveland Orchestra and Chorus at Severance Hall are looking for volunteers to help with a series of holiday concerts.

Faculty, staff and students who volunteer to sell CDs in the Severance lobby and by the gift shop before, during intermission and after a concert will have the opportunity to hear the concert and receive a free CD.

Volunteers should arrive at 7 p.m. for concerts today and December 12, at 2 p.m. or 7 p.m. December 13, at 1 p.m. and 6 p.m. December 14, at 7 p.m. December 18 and December 19, at 2 p.m. and 7 p.m. December 20 and at 1 p.m. and 6 p.m. December 21.

The December 18 and 19 performances are of Handel's Messiah rather than a regular holiday concert.

To volunteer, e-mail [william.hale@case.edu](mailto:william.hale@case.edu) or call 216-368-

6689 with name, preferred concert and alternate and phone number.

## Weight group starts new session

The next session of the Case Western Reserve University Weight Watchers At Work program begins with a registration meeting at 11:30 a.m. today in Thwing Center.

The group meets weekly from 11:30 a.m. to 12:15 p.m. beginning January 8.

Participants receive 14 sessions for the price of 12. The cost is \$138 payable by cash, check or charge.

Contact Sara McIntyre at 368-3924 or e-mail [sara.mcintyre@case.edu](mailto:sara.mcintyre@case.edu) to learn more.

## Two holiday drives to continue

Case Western Reserve University's student activities office is conducting two holiday drives.

One is a Giving Tree. Members of the university community are invited to select an ornament from the tree in the Thwing Center atrium. They then provide a gift for a needy child as indicated on the ornament.

Donations must be returned to Thwing by December 16.

The Giving Tree supports the children of Beech Brook, a mental health facility in Cleveland.

In addition, the Intercultural Dialogue Group, along with University Student Government, are selling paper candy canes for the Multiple Sclerosis Association of America in their "Sweeten the Season" holiday drive.

The \$1 canes are for sale in the student activities office in Thwing.

For more information on either drive, contact the student activities office at 216-368-2679.

## Cottingham to conduct seminar

Eric Cottingham, Case Western Reserve University's associate vice president for research, will conduct a seminar on research policies and practices from 9-10:30 a.m. December 12 in the Toepfer Room of Adelbert Hall.

Cottingham will address issues related to the management of research data. Questions to be answered include: What is research data? Why is research data management important? How should research data be managed? Who owns the research data? How is data management affected by collaborative research and peer review issues? And what resources are available to assist with research data management?

Refreshments will be served and parking will be validated for attendees who work off campus.

To register, go to <http://addison.ra.cwrwu.edu/orc/calendar/calendar.php?m=12&y=2003>.

## Research participants needed

The Skin Study Center in the department of dermatology at the Case Western Reserve University School of Medicine is looking for healthy individuals between 18 and 60 years old to participate in a research study involving sun protection products.

In addition, people with and without psoriasis are needed for another research study at the center.

Compensation will be provided for participants' time and effort. Call 216-844-SKIN (7546) for details.

## Spring break Dutch treat offered

Case Western Reserve University's Mandel School of Applied Social Sciences Begun Center for Violence Prevention Research and Education is hosting Spring Break study in the Netherlands for faculty, staff and students.

Course and continuing education credits are available for the "Dutch treat" annual spring break trip March 6 to March 14 to Amsterdam and Rotterdam in the Netherlands.

The trip includes guided tours of neighborhoods and social institutions in both cities as well as daily lectures by government officials, practicing social workers and many of Holland's prominent scholars.

All participants must complete a registration application, which is available on the Begun Center Web site at <http://msass.case.edu/begun>. Undergraduate students may enroll in SASS 390 and

graduate students may enroll in SASS 598, both through the Mandel School registrar's office by e-mailing [debra.fields@case.edu](mailto:debra.fields@case.edu).

Continuing education credits may be requested through the Mandel School's continuing education office at 216-368-2274 or <http://msass.case.edu/cc>.

Registration applications are due January 15, a down payment is due January 30 with the final payment made by March 5.

## Designer eyeglass show slated

W. A. Jones Optical on the first floor of the Bolwell Health Center at University Hospitals of Cleveland will host a designer eyewear show from 9 a.m. to 4 p.m. December 12.

The show will feature Charmant Pure Titanium, I-Nova, Elle and Magna-Flip.

Call Sue at 216-721-1300 with questions.

## W-2 addresses to be updated

To ensure prompt delivery of W-2 forms in January, Case Western Reserve University employees must have an up-to-date mailing address on file in the payroll system.

Those who have moved during the past year and have not reported a new address must do so by December 19. Due to the varying degrees of mail service, duplicate W-2s will not be issued until after February 14.

Faculty and staff can change their addresses with human resources in person at room 220 of Crawford Hall, through e-mail to [HRrecords@case.edu](mailto:HRrecords@case.edu) or by phone to 216-368-3270.

Graduate students can update their addresses by e-mailing the payroll office at [payroll@case.edu](mailto:payroll@case.edu), sending a written request to payroll in room 357 of the University West Building, calling 216-368-4290 or faxing 216-368-3592.

Undergraduate students should contact student employment in room 410A Yost Hall, e-mail [susan.alexander@case.edu](mailto:susan.alexander@case.edu) or call 216-368-4533 to change their addresses.

# Study to promote well-being of adopted youth

by Jeff Bendix (jeff.bendix@case.edu)

Two researchers from Case Western Reserve University's Mandel School of Applied Social Sciences have received a \$700,000, four-year grant to help ensure that adopted children get the proper services to overcome developmental and social/emotional problems.

The grant's recipients are Gerald Mahoney, the Verna Houck Motto Professor of Child and Family Services, and Victor Groza, professor and chair of the Mandel School's doctoral program.

"There is a lot of evidence to show that even though adopted children are at risk for emotional and developmental problems, they are less likely to be identified as having these problems than other children and are thus not referred often for early intervention services," said Mahoney, the principal investigator.

According to Mahoney, the funding will be used to develop a "Prevention, Assessment, Referral and Transition" model that parents of adopted children and case workers with adoption agencies can use to prevent

developmental problems among young adopted children and to refer children with serious developmental problems to early intervention or special education services.

The model will be tested using 80 adopted children and their parents, divided into two groups. One group will receive intervention services for six months and the other for 12. In the first year, intervention will be carried out with individual families.

"We have data to indicate that this model should work in weekly interventions with

individual families over a 12-month period of time" Mahoney said. "Our project will try to find out if less frequent or less labor-intensive interventions will also work. Weekly visits to a family by an adoption case worker are not feasible over the course of a year, so we need to see if positive developmental outcomes can be achieved in less time."

The grant is from the U.S. Department of Education's Office of Special Education Programs.

college of Arts and Sciences

## Team to search for secrets of cosmos beneath Earth's surface

A detective hunt to solve two of the universe's biggest mysteries is taking a team of physicists, including ones from Case Western Reserve University, a half-mile below the Earth's surface.

Equipped with detectors chilled to near absolute zero, scientists of the Cryogenic Dark Matter Search (CDMS) II team, managed by the U.S. Department of Energy's Fermi National Accelerator Laboratory, last month began their quest to find WIMPs, or weakly interacting massive particles suspected as a major component of dark matter.

They also are searching for evidence of supersymmetric particles called neutralinos that support the physicists' theory of supersymmetry.

"This arrow from particle physics and this arrow from cosmology seem to be pointing to the same place," said Dan Akerib, deputy project manager of CDMS and Case associate professor of physics.

"Detection of a neutralino would be very big for cosmology, and it would also be very big for particle physics."

The scientists use a detector

located deep underground in the historic Soudan Iron Mine in northeastern Minnesota. The experimenters seek signals of WIMPs, particles much more massive than a proton but interacting so weakly with other particles that thousands would pass through a human body each second without leaving a trace.

The launching of the detector is a new milestone in the project, according to Akerib, and within the year, CDMS researchers plan to begin reporting information from

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## Tech transfer soars in two schools

During the 2002-2003 fiscal year, Case Western Reserve University's College of Arts and Sciences and Case School of Engineering produced more than twice the expected number of invention disclosures—and they are on track to do so again this year.

The Case School of Engineering's and College of Arts and Sciences' invention disclosures, which are a standard measure of faculty involvement in technology transfer, are up more than 23 percent so far in 2003-2004, compared with the same period last year.

Based on statistics from the Association of University Technology Managers and research expenditures at the College of Arts and Sciences and Case School of Engineering, the university should expect to produce 20 to 25 invention disclosures each year from the two schools. Last year the schools produced more than twice that number, and so far this fiscal year they have produced 35.

"I continue to be delighted with the pace of activity in the Case School of Engineering and College of Arts and Sciences," said Nick Frollini, director of engineering and physical sciences for the tech transfer office. "We are seeing positive growth in all key areas, and the level of invention disclosures is well above what we would expect to see based on national averages. Clearly our researchers are performing at the highest levels."

Partially as a result of this increased participation by faculty, the tech transfer team already has closed more transactions in the first five months of this year (eight) than they did for the entire previous fiscal year. Two of the new deals include the university taking an equity position in early-stage companies in the region.

In addition, revenue from new transactions for the first half of the year for these two schools has already exceeded \$400,000—which represents a 33 percent increase over the entire past fiscal year.

weatherhead school of Management

## Case to form partnership to focus on regional entrepreneurship activities

Recognizing the need for increased focus within Northeast Ohio's entrepreneurial community, Case Western Reserve University and NorTech will team up to create a new organization that will combine the service lines of Case's Enterprise Development Inc. (EDI) and NorTech's NEOprenuer Inc.

The new organization, which has yet to be named, will play a vital role in supporting the region's entrepreneurs.

The new partnership will seek to direct one-

on-one assistance to entrepreneurs by seasoned executives and innovators; provide pre-seed funding to a select number of high-growth entrepreneurial ventures; improve networking in the region for entrepreneurs; provide relevant, cutting edge education for entrepreneurs; incubate start-up businesses; and recognize and celebrate achievement in the entrepreneurial community.

"This partnership is simply the right thing to do for the entrepreneurial community of

Northeast Ohio," said Mohsen Anvari, dean of Case's Weatherhead School of Management. "Combining the energy and vision of NorTech with the expertise and track record of Enterprise Development Inc. will give the entrepreneurs in this region the best possible opportunity to be successful in their businesses."

An interim nominating committee and board comprised of equal representation from NorTech and Case began work by

appointing Lou Schneeberger Board Chairman and Interim CEO.

Schneeberger, formerly board chairman for Royal Appliance and CFO of Olympic Steel, has been a fixture on the regional entrepreneurial scene for many years, having worked directly with numerous start-ups.

Schneeberger also has extensive experience in mergers and acquisitions and financial transactions, having been involved with dozens of acquisitions and public offerings.



photo by Mike Sands

## On the rise

U.S. Rep. Dennis J. Kucinich (D-Ohio), a candidate for the Democratic nomination for President of the United States, gave a speech and conducted a question-and-answer session on America's war on terror and its effect on U.S. foreign policy. He also answered questions about his candidacy from the standing-room only audience at Strosacker Auditorium. The talk was co-sponsored by Case's office of government relations, undergraduate student government and Case for Peace.

school of Dental Medicine

## Researchers first to study private dental practices in depth, to set teaching standards

by Susan Griffith (susan.griffith@case.edu)

Researchers from the Case Western Reserve University School of Dental Medicine are leading the first in-depth study of daily activities in private dental practices.

Information from the study is expected to help set new standards for dentists and assist dental schools in designing effective teaching programs.

With support of a \$2.3 million grant from the National Institutes of Health and the National Institute of Craniofacial Research, Case Professor of Community Dentistry

Stephen Wotman will direct a team of researchers from the dental school, the Case School of Medicine and the MetroHealth Medical Center system.

They will implement a four-year study based on a research model designed by Kurt Stange, professor of family medicine at the Case School of Medicine. Stange has undertaken similar practice studies in family medicine.

Unlike medical doctors who have extensive hospital patient records that note practices and procedures, many dentists work in isolated environments. Information about

what happens in those offices has primarily come from self-reported surveys conducted by the American

Dental Association.

Starting in May 2004, researchers will begin observing 120 randomly

selected Northern Ohio dentists who are participants in Case's

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## Dental students, faculty, alums know what's in a name

Dental faculty, alumni and students at Case Western Reserve University who want their school's name to reflect its focus on the overall health of patients have overwhelmingly supported changing that name from the Case School of Dentistry to the Case School of Dental Medicine.

The change, earlier supported by the university's Faculty Senate, became official with recent approval by the Case Board of Trustees.

In addition, the Ohio Board of Regents has given the dental school verbal approval to change the school's degree from Doctor of Dental Surgery (D.D.S.) to Doctor of Dental Medicine (D.M.D.), according to Jerold Goldberg, dean of the Case School of Dental Medicine.

"Dentistry has evolved over the years. Right now it is more about prevention and using the newest knowledge, technology and materials to design treatments relevant to health problems that affect the well

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## SCOREBOARD

### Women's Basketball

November 25:  
Ashland 93, Case 60

November 29:  
Ohio Wesleyan 77, Case 73

December 2:  
Defiance 90, Case 48

### Men's Basketball

November 26:  
Baldwin Wallace 80, Case 67

November 28:  
John Carroll 94, Case 74

November 29:  
Case 78, Hiram 73

December 1:  
Washington & Jefferson 89,  
Case 86 (OT)

# spartan Sports

## Athletes, coaches help to serve up holiday cheer

by Creg Jantz (creg.jantz@case.edu)

Six student athletes and two coaches from Case Western Reserve University took time out of their busy schedules to assist the Cory United Methodist Church with its 12th annual Pre-Thanksgiving Day meal.

The group helped prepare and serve free hot meals on a cold November evening to nearly 400 attendants.

"The athletes here at Case amaze me more and more every day," said Kristin Hughes, the university's interim athletic director. "They have a lot on their plates, and for them to care enough to volunteer what little spare time they have to a needy cause is very humbling to me."

Freshman 125-pound wrestler Tom Chambers from Lakewood, Ohio; 157-pounder Pat Jeffers from Kent, Ohio; senior 197-pounder Josh Schmidt from St. Mary's, Pa.; and assistant wrestling coach Paul Hodermarsky all took part in the community service at the church, also known as Temple Anshe Emeth, on East 105th Street near the Case campus.

Volunteers representing the women's soccer team were sophomore midfielders and twin sisters Beth and Cara Stepanczuk from Munster, Ind., sophomore Lauren Gaeta from Parkton, Md., and head coach Emily Donovan.

## Koll

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travel to Vienna for the meeting.

In researching her new book, Köll traced the roots of Chinese business institutions into the late 19th and 20th centuries to understand the role of the corporation now and then. She examined Dasheng Cotton Mills as a case study.

Dasheng, known as one of China's leading enterprises from 1890–1950, employed 8,000 industrial workers—mostly women from

farming families who earned supplemental incomes. Köll sought information about how an agrarian workforce transforms into industrial workers, how management organized people unfamiliar with the work discipline of the factory and how people managed these large enterprises.

Köll would travel eight hours by boat up the Yangtze River to reach the city of Nantong, where Zhang Jian founded the Dasheng enter-

prise and grew it into a conglomerate that encompassed businesses of steamships, bank, distillery, soap factory, land reclamation and agriculture.

She arrived just as China began to liberalize its policies about access to records, but it still took a dinner party and the distribution of gifts to pave the way for people there to accept her research project.

Many people in Nantong thought Köll would stay for a month. As her

work stretched into a year, her life became interwoven into the lives of people in the region. The local curiosity spurred a documentary on Köll, called "One Day in the Search of Scholarship."

The video crew followed Köll from her research in the library to her calligraphy lessons and eventually to the kitchen of the gynecology department of the local hospital where Köll regularly ate her meals as a guest. She chose

to eat in the kitchen to escape the scrutiny of curious people and to find individual fare rather than the large-size family meals served in local Chinese restaurants.

While Köll's first book rolls off the press, she already has started research for a new book that will examine how the building of Chinese railroads shaped the country's landscape and impacted its economic, social and cultural life.

## Cosmos

(continued from page 3)

their analyses of project data.

By watching how galaxies spin—how gravity affects their contingent stars—astronomers have known for 70 years that the matter seen cannot constitute all the matter in the universe. If it did, galaxies would fly apart. Recent calculations indicate that ordinary matter containing atoms makes up only 4 percent of the energy-matter content of the universe. "Dark energy" makes up 73 percent, and an unknown form of dark matter makes up the last 23 percent.

Remarkably, in the kind of convergence that gets physicists' attention, the characteristics of this cosmic missing matter particle now appear to match those of the supersymmetric neutralino.

Measurements of the cosmic microwave background, residual radiation left over from the Big Bang, have recently placed severe constraints on the nature and amount of dark matter. The lightweight neutrino can account

for only a few percent of the missing mass. If neutrinos constituted the main component of dark matter, they would act on the cosmic microwave background of the universe in ways that the recent Wilkinson Microwave Anisotropy Probe should have observed—but did not.

Meanwhile, particle physicists have kept a lookout for particles that will extend the Standard Model, the theory of fundamental particles and forces. Supersymmetry, a theory that takes a big step toward the unification of all of the forces of nature, predicts that every matter particle has a massive supersymmetric counterpart. No one has yet seen one of these supersymmetric "superpartners." Theory specifies the neutralino as the lightest neutral superpartner, and the most stable, a necessary attribute for dark matter. The neutralino's predicted density and rate of interaction also make it a likely dark matter candidate.

Only occasionally would a WIMP hit the

nucleus of a terrestrial atom, and the constant background "noise" from more mundane particle events—such as the common cosmic rays constantly showering the earth—would normally drown out these rare interactions.

Installing the CDMS II detector beneath 740 meters of earth screens out most particle noise from cosmic rays. Chilling the detector to 50 thousandths of a degree above absolute zero reduces background thermal energy to allow detection of individual particle collisions.

Project managers at Fermilab estimate that with sufficiently low backgrounds, CDMS needs only a few interactions to make a strong claim for detection of WIMPs.

The CDMS II experiment is a collaboration of scientists from 12 institutions with support from department of energy's Office of Science and the National Science Foundation.

Other Case researchers involved with CDMS are Richard Schnee, visiting assistant

professor; Michael Dragowky, senior research associate in physics, and graduate students Donald Driscoll, Sharmila Kamat and Gensheng Wang.

Over the past several years, the Case team has been part of the development and testing of the detector in labs at Rockefeller Hall.

In addition to Case and the Fermi National Accelerator Laboratory, CDMS II collaborators include Brown University, Lawrence Berkeley National Accelerator Laboratory, National Institute of Standards and Technology, Princeton University, Santa Clara University, Stanford University, University of California at Berkeley, University of California at Santa Barbara, University of Colorado at Denver and University of Minnesota.

Funding for the CDMS II experiment comes from the Office of Science of the U.S. Department of Energy and the Astronomy and Physics Division of the National Science Foundation.

## Dental practices

(continued from page 3)

Practice-Based Research Network. Observational teams expect to see some 6,000 patients interacting with the dentists over a 16-month period of data collection.

Each team will observe the dentist and hygienist over a three-day period to discover what kinds of procedures are conducted, what patient education and preventive treatment takes place, who is visiting the dentist and how the dentist interacts with the patient.

Wotman also said data will

be collected from patient and billing records, surveys and a qualitative log.

"This will be one of the most comprehensive databases of dental practices collected in this country," he said.

According to Wotman, this project begins a new research focus in community dentistry in which information from this study will aid the Case dental school in designing new interventions for practicing dentists and later testing the

effectiveness of those interventions.

The Case Practice-Based Dental Research Network was established in 1998 to study the private practice. Approximately 10 percent of the 2,500 dentists in Northern Ohio participate in this network.

## Dental name

(continued from page 3)

being of populations as well as individuals," Goldberg said. "We are still committed to our students achieving excellence in accomplishing procedures, but that is an increasingly smaller part of what they must be able to do."

Over the next four years, current students in each class will have the option of either receiving the new D.M.D. or the D.D.S. But starting with next year's incoming class, everyone will receive a D.M.D. upon graduation. Alumni also will have the opportunity to receive certificates for the new D.M.D.

"Whether it is a D.D.S. or D.M.D., both are equivalent degrees," Goldberg said.

The name change first surfaced about five years ago among the school's alumni living and working on the East Coast. About 70

Other researchers involved in the project are James Lalumandier, Danny Sawyer and Kristen Zakariasen from the dental school; Stange, Stephen Zyzanski and Susan Flocke from the Case family medicine department; Joseph

Sudano, a sociologist from the Center for Health Services and Research at MetroHealth Medical Center's department of medicine; and Donna Homenko, professor of dental hygiene from Cuyahoga Community College.

alumni board and then on to the Faculty Senate and eventually to the university trustees.

About two years ago, the East Coast alumni again approached the school and asked the dean to raise the issue. This time, the visionary atmosphere at the dental school—with its new research focus, community service programs and innovative teaching technologies—created an environment receptive to a new name that reflects the way dentists are rethinking their profession.

As dentistry re-evaluates its changing role, Goldberg said that he hopes that legislators, policymakers and others also recognize the evolving and important role the profession has in contributing to a healthy society.

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