

SPECTRUM

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Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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TODAY'S EDITION

See page 4 for
an update on
Tech's solar
house.

VBI scientists awarded \$6.7 million to study soybean genetics

By Stewart MacInnis

Scientists at Virginia Bioinformatics Institute (VBI) at Virginia Tech, Virginia Tech, and Ohio State University have received a \$6.74-million grant from the National Science Foundation to study the genetics of soybean root rot.

Soybean root rot, a disease caused by *Phytophthora sojae*, costs US soybean growers millions of dollars each year. In some years, farmers have lost over 50 percent of their harvest due to this disease.

Since the first reported outbreaks of soybean root rot in the United States, traditional plant breeders have been struggling to identify and understand the genes that confer natural resistance in some soybean varieties.

Complicating this quest is what VBI Bioinformatics Professor Brett Tyler refers to as "quantitative genetics," or many genes working in tandem to naturally protect a plant from disease.

Identifying the 10 or so genes working together that confer this natural disease resistance in soybean plants is worse than "finding a needle in a haystack." The genes are scattered among the more than 30,000 that compose the genome—or entire genetic makeup—of the soybean plant. This dispersion has made the task of identifying disease resistance genes impossible to date.

With the latest tools in biotechnology paired with VBI supercomputers, a multidisciplinary research team of seven, led

by Tyler, will tackle one of the plant kingdom's most intriguing mysteries.

"The unique expertise of our interdisciplinary team will help us delve into the secrets of quantitative disease resistance," Tyler said. "This natural defense mechanism, which has traditionally been useful for farmers, has long puzzled molecular biologists. We aim to solve one of nature's long-standing riddles by combining many scientific disciplines—plant science, genetics, mathematics, statistics, and plant pathology."

Soybean cultivars with improved resistance to disease will make U.S. farmers more competitive by reducing crop loss and reducing the need for costly chemical fungicides. These

(See *SCIENTISTS* on 2)

Photonics center receives \$1.1 million DOE award

By Kathy Acosta

The Center for Photonics Technology (CPT) has received a \$1.1-million grant from the U.S. Department of Energy (DOE) for continued development of sensors for use in the production of electricity from coal.

Anbo Wang, CPT director, and Gary Pickrell, associate director, will lead the six-year project, which began in 1999. Wang and his colleagues are developing single-crystal sapphire-based high-temperature sensors that can operate reliably in the high-temperature and corrosive environment of integrated-gasification and combined-cycle (IGCC) plants.

Developed by government and industry under the Clean Coal Technology program, IGCC plants convert coal into electricity. This happens in two ways: by converting the coal into a combustible gas, which generates electricity by powering a gas turbine; and by using the gas-turbine exhaust to produce steam to drive a steam turbine, which also generates electricity. This process has been demonstrated to have a high thermal efficiency, with significant reductions in carbon dioxide, nitrogen dioxide, and sulfur emissions. Another advantage of IGCC plants is their ability to make use of a wide range of feedstocks, including coal, biomass, and wood wastes.

Coal gasifiers must be operated at temperatures high enough for the ash in the coal to melt and become fluid, but not so high as to damage the gasifier. In some areas of a

(See *PHOTONICS* on 4)

Business Consultation Partnership project initiated

By Jason Risley, communications intern

Virginia Tech's Family Therapy Center, the Office of Outreach and Extension, and the Department of Human Development have started a joint project called the Business Consultation Partnership (BCP).

Championing Virginia Tech's outreach motto of "Putting Knowledge to Work," the BCP is available to the more than 900 New River Valley businesses. The organization is available to help local companies operate more effectively through improved management, workplace relations, and leadership, which could translate into increased profits and greater productivity.

Outreach to area businesses will be provided by regular workshops, forums, and a newsletter on healthy organizational relationships. The forums will facilitate education and discussion on a variety of business issues, including family roles within and outside of business, mentoring and transition planning for family and non-family workers, succession or transfer of ownership, compensation fairness, crisis management, and general interpersonal and organizational dynamics. Consultation is available to both struggling businesses and already successful companies.

"Virginia Tech's Department of Human Development and its Marriage and Family Therapy program will stand out from other colleges and universities in the nation with the addition of this program," said Anna Beth Benningfield, director of the Business Consultation Partnership.

A licensed marriage and family therapist and psychologist, Benningfield is the only person twice elected president of the American Association for Marriage and Family Therapy, the professional association for the field, and has more than 25 years of experience as a business owner and consultant.

For more information, contact Benningfield at 1-6807 or by e-mail at abenning@vt.edu.

Governor to Deliver State-wide Broadcast Address

Governor Mark Warner will deliver an address on Tuesday, Oct. 15 at 7 p.m. to announce spending reductions he will accept to address the current state budget shortfall.

During the address, Warner is expected to outline cuts of up to 15 percent for state agencies

WVTF 89.1 public radio will carry Warner's speech, followed by an hour-long "Evening Edition" with Bob Gibson of the Charlottesville Daily Progress and U.Va. Political Science Professor Bill Wood discussing the speech and taking phone calls.

The speech will also be broadcast live on Roanoke television stations WDBJ (Channel 7), WSLS (Channel 10), and Blue Ridge Public Television, WBA. Satellite uplink information for the address is as follows: Telstar 6, C/11 [C Band, Transponder 11]; downlink frequency 3920, vertical polarity; window opens at 6:45 p.m.; "Governor Warner's Address" screen up at 7 p.m.

Veterinary Memorial Fund showcased

By Jeffrey Douglas

A bronze statue depicting the relationship between pets and people was unveiled, and eight college faculty members were awarded research funding during the annual Fall Conference of the Virginia Veterinary Medical Association and the Virginia-Maryland Regional College of Veterinary Medicine.

The statue, which will be installed in the public-entrance lobby of the college's Veterinary Teaching Hospital, will serve as a symbol of the Veterinary Memorial Fund, a memorial fund/research program jointly operated by the state professional association and the college.

The life-size cast bronze statue depicts a young girl and a dog. A Hokie-stone base will be constructed in the hospital lobby for the permanent installation.

The college and state association are emphasizing the fund as part of an overall effort to elevate the college of veterinary medicine's research program.

Since the program was created, about \$646,000 has been raised and 88 different clini-

(See *VETERINARY* on 4)



A new statue symbolizing the Veterinary Memorial Fund will be installed in the lobby of the teaching hospital. (G. Babe)

Bond Referenda Video to Air on Area Cable Systems

Blacksburg's Adelpia Cable System (WTOB, Channel 2) will air a video explaining the two bond referenda on the November 5 ballot.

Air times can be found at <http://www.blacksburg.gov/calendar.php?WTOB=1>.

The program will also air on Cox Cable of Roanoke on the system's public-access channel, WCOX9, at the following times through

Election Day:
Monday through Friday, 7:30 a.m.
Monday through Saturday, 3 p.m.
Daily, 1 a.m.

ACTIVITIES

EVENTS

Friday, 11

International Club Program, 5 to 6:30 p.m., Cranwell Center.

Saturday, 12

Parents' Day.

YMCA Hike, 9 a.m. YMCA parking lot.

Monday, 14

Columbus Day Holiday for Staff Members.

Faculty Development Workshop, 3 to 5 p.m., 1120 Torgersen.

Faculty Development Workshop, 3 to 5 p.m., 3060 Torgersen.

Tuesday, 15

Faculty Senate, 7 p.m., 1060 Torgersen.

Faculty Development Workshop, 10 a.m. to noon, 3060 Torgersen.

Faculty Development Workshop, 3 to 5 p.m., 1120 Torgersen.

VTU Program, 7:30 p.m., Burruss auditorium: Scarlet Pimpernel.

Wednesday, 16

Pay Date for Faculty and Staff Members.

Faculty Development Workshop, 10 a.m. to noon, 1120

Torgersen.

Faculty Development Workshop, 10 a.m. to noon, 3060

Torgersen.

YMCA Noon Slide Show, noon, Cranwell Center.

Faculty Development Workshop, 3 to 5 p.m., 1120

Torgersen.

Faculty Development Workshop, 3 to 5 p.m., 3060

Torgersen.

"With Good Reason," 7 p.m., WVTF.

Thursday, 17

Staff Senate, noon, 1810 Litton Reaves.

TA Production, 8 p.m., Squires Studio Theatre: The Laramie Project (through 10-19).

Art Exhibit, noon to 5 p.m., Tuesday through Friday; noon to 4 p.m., Saturday, Armory Gallery (through 11-15).

Faculty Development Workshop, 10 a.m. to noon, 3060 Torgersen.

Family, Work/Life Resources Program, noon to 1 p.m., DBHCC room A.

Faculty Development Workshop, 3 to 5 p.m., 3060 Torgersen.

Friday, 18

Last Day to Resign.

Art Gallery Exhibit Opening, Squires Perspective Gallery (through 12-6).

International Club Program, 5 to 6:30 p.m., Cranwell Center.

Music Program, 8 p.m., Squires Recital Salon: Faculty/Guest Artist Recital.

SEMINARS

Friday, 11

MCBB, 12:20 to 1:10 p.m., Fralin auditorium: Channe Gowda, Penn State.

Geological Sciences, 3:30 p.m., 4069 Derring: Clark Johnson, University of Wisconsin.

MSE, 3:30 p.m., 100 Hancock: Richard J. Matyi, Quantum Metrology Group, NIST.

Monday, 14

Horticulture, 4 p.m., 409 Saunders: Chris Tadanier.

Biochemistry, 4 p.m., 223 Engel: William Huckle.

Thursday, 17

Career Services, noon to 1 p.m., 219 Squires.

Friday, 18

MCBB, 12:20 to 1:10 p.m., Fralin auditorium: Victor Wray, German Research Center for Biotechnology.

Geological Sciences, 3:30 p.m., 4069 Derring: Russell Hemley, Carnegie Institution of Washington.

MSE, 3:30 p.m., 100 Hancock: John Hren, NC State.

BULLETINS

Irish storyteller to perform

Eddie Kerr, a multi-award winning storyteller, playwright, poet, and arts educator from Derry in Northern Ireland will perform Tuesday, Oct. 22, at 7:30 p.m. in Squires Recital Salon.

Kerr is the featured speaker at the annual Commonwealth Humanities Endowment Week, sponsored by the Humanities Program in the Center for Interdisciplinary Studies. The performance is free and open to the public.

Kerr is a member of the Irish Writers Union and Irish Playwrights Society. He is also artistic director of the award winning PlayStation Theatre Company.

Indigenous communities representatives to speak

Representatives from indigenous communities in Guatemala, Puerto Rico, and the United States will discuss their experiences as First Americans during a program Thursday, Oct. 17.

Panelists for the program on "Remembering Columbus, Celebrating Survival: Indigenous Rights in the Americas" will be Kachiquel Mayans Jorge Luis Tala and Baslia Popol. Other

panelists include Carmen Colon Delgado, a Taino native, and Kenneth Branham, chief of Virginia's Monacan Indian Nation.

The program will be held at 7 p.m. in the Donaldson Brown auditorium, with a reception afterwards in Squires Black Student Center.

Sponsors include Virginia Tech's American Indian Studies program, Humanities program, Center for Interdisciplinary Studies, American Indian Culture Club, and the American Indian Science and Engineering Society.

For more information, contact Sam Cook at 1-9596 or sacook2@vt.edu.

Drinking-water-supply conference set

The Virginia Water Resources Research Center annual research symposium November 6 through 7 in Richmond will address "Drinking Water Supplies Assessment and Management Strategies for the 21st Century."

Invited speakers will address water environment, water supply, decision support systems, irrigation water management and planning, residential and rural water resources and management, wastewater treatment and management, quality

and pollution control, pipe flow and replacement analysis, hydrological modeling, groundwater flow, and water resources management.

Governor Mark Warner is expected to give the keynote address. The symposium presents the most recent research findings and technical innovations and facilitates discussion of mutual concerns by individuals interested in the water supply and drinking water issues facing Virginia.

The symposium will be held at the Sheraton Richmond West. For registration information, go to <http://www.vwrrc.vt.edu> or contact Judy Poff at jupoff@vt.edu.

Monroe to present public lecture

Pamela Monroe, Doris Lasseigne Carville and Jules A. Carville Jr. endowed professor of human ecology at Louisiana State University, will present a public lecture Friday, Oct. 18, at 2 p.m. in Fralin auditorium titled "Challenges of Compliance: Life without Welfare in Rural Louisiana."

The lecture is sponsored by the Department of Human Development, College of Human Sciences and Education.

DNA lab-techniques seminar sharpens technicians' skills

By Jennifer Sills, University Relations intern

Laboratories across campus are more prepared to conduct advanced genetic research, thanks to a Basic Recombinant DNA Techniques Workshop held recently to sharpen and update the skills of the university's lab technicians.

The two-day workshop, led by Kristi DeCourcy and Valerie Cash, was held in the Fralin Biotechnology Center. Among the research techniques learned were restriction enzyme digests of DNA, PCR, transformation of cells with DNA, and extraction of genomic DNA.

"The deans of the various colleges involved

have been extremely helpful," said Delbert Jones, of the College of Veterinary Medicine, "especially in giving us the time needed to learn the skills taught at each seminar. They understand how valuable the hands-on training is; there just isn't a substitute."

Jones said it was very beneficial that the participants were able to take their technological training up a notch.

He also said being able to learn from the in-house service workshops means the university does not have to rely on outside consulting firms.

The workshop was part of a series sponsored by University Leadership Development to

provide continuing-education opportunities for laboratory specialists and technicians. Held quarterly, this is the fourth seminar set up to bring together laboratory technicians from different areas of campus. Previous seminars have included a plant tissue-culture workshop, a three-day short course on research statistics, and general lab-practices certification training.

"We try to identify people on campus who can provide training," Steven Van Aken, of University Leadership Development said.

Participants in the workshop at the Fralin Center and at other seminars said the efforts of

the Employee Professional Development Network have been a great success. In addition to facilitating the workshops, the Network has established a listserv to help lab technicians connect with their peers, ask questions among the technical staff, learn from each other, and even share equipment.

As Kathy Reynolds of the Department of Human Nutrition, Foods and Exercise said, "When you come together with people doing similar kinds of work, you always find better and more efficient ways to doing what you've already been doing."

SCIENTISTS

Continued from 1

findings will also help improve the growth and yield of other plant and tree species affected by *Phytophthora* pathogens. Moreover, the bioinformatics methodologies developed can

be adapted to identify quantitative resistance genes of many other diseases common to plants, animals, and humans.

"Identifying the genes that confer resistance to *Phytophthora* will allow us to develop disease-resistant soybean varieties through the integration of traditional breeding with biotech-

nology. We can then work to apply this new knowledge to other crop species," said M.A. Saghai Maroof, a plant-genetics professor in the Department of Crop and Soil Environmental Sciences also working on the project.

Other Virginia Tech researchers working on the project include Glenn Buss, Amanda

McWatters, Ina Hoeschele, and Keying Ye.

VBI merges cutting-edge biological research with state-of-the-art computer science. More information about VBI is available at www.vbi.vt.edu.

CAMPUS UPDATE

2001-2002 'Student Success' projects completed

By Juliet Crichton

An estimated 3,357 Virginia Tech students seeking to maintain their academic standing were helped during the past academic year through projects conducted under the university's Student Success initiative, according to a report on the initiative just completed by Brian M. Johnson, coordinator of Student Success projects.

Student Success was developed in response to an academic-eligibility policy, enacted by the university's Board of Visitors in 1996, that requires students to maintain at least a 2.0 quality-credit average (QCA). Fifteen Student Success projects were funded for the 2001-2002 academic year, all with the goal of contributing to student success by making available either a new opportunity or new information.

Of particular note among the 2001-2002 projects, Johnson said, was "Problem Solving Sessions in Chemistry," which received \$50,000 to increase student success rates in general chemistry by way of small-group problem-solving sessions facilitated by undergraduate science majors. Results reveal that those students in classes incorporating problem-solving sessions consistently scored higher on tests than those students not participating.

The sociology department's "Peer Mentors to Improve Note-Taking and Study Skills," awarded \$11,400 to furnish peer mentors for students enrolled in introductory sociology, was similarly effective. The project's evaluation indicates that mentored students earned an average course grade of 2.40, while non-mentored students compiled an average course grade of 1.93.

Other projects among the 15 successfully completed during the academic year included the biology department's "Biological and Life Sciences Learning Community," which received \$10,000 in funding, and - University Libraries' "Information Skills Peer Advisory Project,"

(See *SUCCESS* on 4)

H1B visa provides ready access to global experience

By Steve Conrad

The Cranwell International Center now acts as the resource for departments interested in the H1B Visa Program. The effort is to actively pursue international expertise and make a significant contribution to the University Strategic Plan. The H1B Visa is an employer-sponsored visa focused on specialty occupations and the employment of workers of exceptional caliber.

A program has been developed which enables university faculty and research staff members the option to recruit experienced personnel from essentially all points of the globe. A cooperative effort with university administration, Personnel Services and Controller's Office has resulted in streamlined procedures to complete a visa petition and bring international talent to Blacksburg.

Any organization identifying a foreign national candidate as possessing specialized capability, knowledge, or experience can ini-

tiate the H1B Visa process. These individuals can be from the international academic community, and the corporate research world, as well as graduate and post-graduate students already here on campus.

At the point when the candidate is identified, the sponsoring agency can access the application information and forms from several sources. The *H1B Visa Handbook* is available through campus mail or personal pick up at the Cranwell Center. The same information is also available from the Cranwell web site at www.uusa.vt.edu/cranwell/ under "Services."

The requesting department is encouraged to contact the visa program coordinator directly. A file will be opened and personalized service provided through the entire application process.

The initial steps require the requesting department to submit a request form and approval form with the candidate's background

data to university administration. At the same time the visa coordinator clears the proposed wage through the State Employment Agency for ultimate certification by the Department of Labor.

After these steps have been accomplished, the department requests the filing fee of \$130 using a standard accounting voucher. The visa coordinator gathers the information, certifies the hire through the Department of Labor, and finalizes the visa petition for INS.

Several departments have used the H1B Visa hiring option extensively, and found the process efficient and easily accomplished. The initiatives to bring the university with its numerous campuses to the status of a top-30 research institution focus strongly on an international research staff. The H1B Visa is a logical and versatile method to augment the university community with world-class talent and experience.

ESM student among first recipients of Cooke scholarships

By Liz Crumbley

"College seemed like a brand-new adventure when I came back with a cast on one arm, a sling on the other, and higher motivation in my heart," Aaron Barr said, recounting his recovery from an automobile accident during his freshman year that "transformed a lazy, apathetic child into a motivated, inspired and focused scholar."

Barr, now a junior studying engineering science and mechanics (ESM) at Virginia Tech, is among the first recipients of Jack Kent Cooke undergraduate scholarships worth up to \$30,000 a year.

During this first year of the program, the Jack Kent Cooke Foundation has presented undergraduate scholarships to 79 students from

37 states and the District of Columbia. Barr is one of six recipients at Virginia colleges and universities. In May of this year, two Virginia Tech seniors—Sarah Hupp and Rebecca Weber—were among the first 50 students to receive graduate scholarships from the foundation. The late Jack Kent Cooke, who built a media empire and owned the Los Angeles Lakers and Washington Redskins, set aside the bulk of his estate to establish the foundation for supporting educational endeavors.

Early in spring semester 2001, Barr was traveling from Blacksburg for a weekend at his home in Martinsburg, West Virginia, when his car collided head-on with a tractor-trailer. Suffering from a head trauma, a broken shoulder blade, broken hand and several lacerations, Barr

experienced a turnaround in his academic outlook. "Academics became my main focus and I stopped procrastinating," he said. "I finished that semester with a 4.0 GPA and a newfound self-confidence."

An enthusiastic environmentalist, Barr said that his ultimate goal as a future engineer is to help establish "the world's largest and most productive renewable-energy-generating facility." Eager to learn all he can about renewable energy, Barr has been working with Mohammed Hajj of the ESM faculty on a project involving a municipal landfill and harnessing methane gas. He also worked this past summer as a student intern for Allegheny Power in West Virginia on electrical-distribution projects.

(See *ESM* on 4)

EMPLOYMENT

The following classified positions are currently available. Position details, specific application procedures/position-closing dates may be found on Personnel Services web site <http://www.ps.vt.edu>. Positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some positions include state benefits. Positions with numbers beginning with "W" are hourly and do not include state benefits. Individuals with disabilities desiring assistance or accommodation in the application process should call by the application deadline. Closing date for advertised positions is 1 p.m. Monday. An EO/AA employer committed to diversity.

CLASSIFIED POSITIONS

FULL TIME

Three full-time food-service positions available.

Biostatistician, 008018K, PB 4, VBI.
Business Practices Specialist, 007952F, PB 5, Controller's Office.
Catering Office Coordinator, 007103H, PB 3, RDP.
Database Coordinator, 008025H, PB 4, RDP.
Financial Analyst, 006676Y, PB 4, OPS.
Fiscal Technician, 007882B, PB 3, CHPM.
Housekeeping Worker, 007776C, PB 1, DBHCC.
Housekeeping Worker, W022490H, PB

1, RDP.
Housekeeping Worker, 001076H, PB 1, RDP.
Hvac Technician, 008001H, PB 3, RDP.
Lab Facility Coordinator, 008021K, PB 4, VBI.
Police Officer, 008027G, PB 3, Police.
Proteomics Laboratory Technician, 008026K, PB 4, VBI.
Scientific Glassblower, 001267B, PB 5, Chemistry.
Service Leader/Cashier, 000578H, PB 1, RDP.

PART TIME

Administrative Assistant, 002441G, PB 3, Purchasing.
Animal Care Technician, W022675M, PB 1, VTH.
Animal Care Technician Large Animal, W020066M, PB 2, VTH.
Assistant Computer Systems Administrator, W023369F, PB 4, Office of Transportation.
Distance Learning Support Technician, W023290A, PB 3, VBS.
ICU Veterinary Technologist Large Animal, W022218M, PB 2, VTH.
Large Animal Husbandry, W022155M, PB 1, VTH.
Pmm Support Technician, W022979M, PB 2, VTH.
Starter Marshall/Shop Attendant, W022113J, PB 1, Golf Clubhouse.
Wildlife Lead Worker, W023489J, PB 2, CMI.

OFF CAMPUS

Administrative Program Support, 007411B, PB 3, Engineering/NVC.
Nursing Supervisor, 006726M, PB 3, CVM.
Senior Program Administrator, 006436Y, PB 4, DCE.

FACULTY POSITIONS

INSTRUCTIONAL

Department of Mechanical Engineering, Assistant Professor. Information at <http://www.me.vt.edu>.

NON-INSTRUCTIONAL

Department of Athletics, Head Women's Soccer Coach. Contact: Pam Linkous, 359 Jamerson Athletics Center.
University Development, Director of Development Communication. Contact: Rhonda K. Arsenault, 0336.
Department of Geological Sciences, Postdoctoral Associate. Contact: A. Krishna Sinha, Department of Geosciences.

OFF-CAMPUS

Institute for Advanced Learning/Research, Director of Finance and Administration. Information at <http://www/ialr.vt.edu>.
Institute for Advanced Learning/Research, Director of Marketing and Conference Services. Information at <http://www/ialr.vt.edu>.



VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

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NIH awards fellowship to Tech veterinary-informatics researcher

By Jeffrey S. Douglas

A veterinarian and Ph.D. candidate working in the Virginia-Maryland Regional College of Veterinary Medicine's Informatics Laboratory has been awarded a post-doctoral fellowship in medical informatics by the National Institutes of Health.

Funded by the National Library of Medicine, veterinary clinical pathologist Kurt Zimmerman will spend two years exploring the application of an internationally recognized medical-nomenclature system in a computerized decision-support system for clinical pathology.

Clinical pathology is a branch of medicine that diagnoses disease by analyzing fluctuations in a person or animal's serum blood chemistry.

"Decision-support systems are typically

comprised of an interface for data input and output, a knowledge base for the storage of facts, and an inference engine for deriving new information," said Zimmerman, who completed a residency in veterinary clinical pathology and is board certified by the American College of Veterinary Pathology.

Zimmerman will examine the ability of a semantic network known as the Systemized Nomenclature of Medicine (SNOMED) to reliably function as a suitable knowledge base in the development of the medical decision-support system. The ability of nomenclature systems to precisely model specific concepts is a critical component in computer-based information-management systems.

Working with Jeff Wilcke, the Metcalf professor of veterinary medical informatics and the director of the American Veterinary

Medical Association's Secretariat to SNOMED International, Zimmerman will examine SNOMED's suitability, establish a method for adapting SNOMED to a Bayesian analytic network, and finally, evaluate the performance of the resulting decision-support system using retrospective clinical chemistry data from drug-toxicity studies.

If SNOMED is determined to function well as a knowledge base in this analytic environment, Zimmerman said, it could pave the way for its application in a number of other domain specific decision-support systems such as in oncology treatment.

"Virginia Tech is one of the few universities to offer both a residency-training program in veterinary clinical pathology and graduate training in veterinary informatics," Zimmerman said. "The disciplines complement

each other well, with clinical pathology providing a data-rich environment and medical informatics providing the tools for data aggregation and analysis."

In addition to Wilcke, Zimmerman will work with Loren P. Rees, Arthur Andersen alumni professor of management science and information technology in the Pamplin College of Business. Rees will provide expertise in machine learning, artificial intelligence and the creation of decision-support systems.

The National Library of Medicine is funding the work as part of a larger effort to encourage the training and production of health-care professionals who are capable of using health informatics to manage biomedical information management problems, thus improving the nation's overall health-care system.

CVC WINNER

Netta Benton, of agriculture and extension communications, is the winner of tickets to the October 19 football game with Rutgers,



Benton

donated by the Athletic Department.

Upcoming prize drawings include tickets to the Temple game, a baseball sweatshirt, a soft-sided cooler, lunch for two at Donaldson Brown, basketball tickets, and more. All returning CVC pledge cards are eligible to win.

Solar house places fifth

The Virginia Tech house placed fifth out of the 14 competing teams from across the nation in the first Solar Decathlon competition sponsored by the Department of Energy. The University of Colorado at Boulder placed first and the University of Virginia finished second.

The Virginia Tech house took first place in two of the 10 categories—first in the Design Presentation and Simulation category, as well as first in Getting Around, where team members were judged on getting around in their solar car efficiently. The team also received the BP Solar Innovation Award for innovative use of materials, systems, and integration of the two.

The house returns to Blacksburg this week and will be re-assembled at the research center off Plantation Road for future research purposes, as well as public tours. Visit www.solardecathlon.org for more information about the contest, and visit the VT Solar page at <http://www.caus.vt.edu/vtsolar/> for details about the team, the house, and diary entries while at the competition.

English Language Institute granted full accreditation

By Carey Mosser,
University Relations intern

The English Language Institute of Virginia Tech (ELI) was granted full accreditation from the Commission on English Language Program Accreditation at its September meeting.

The ELI offers English language classes to prospective graduate and undergraduate students, community residents, and tourists. This program has offered students the opportunity to meet personal and professional goals since 1993. Classes offered include reading and writing, listening and conversation, grammar, and pronunciation. Most current students are preparing to enter Virginia Tech or another university and are currently strengthening their English-language and academic skills.

The ELI staff has been preparing for full

accreditation from the commission for more than two years. ELI at Virginia Tech had previously been on provisional accreditation, which is granted for one year. During this time, it was to meet commission requirements to be granted full accreditation which is granted for five years. There are currently 34 fully accredited programs in the nation.

Accreditation is not now required for programs within an accredited institution like Virginia Tech. However, the process of accreditation stimulates a healthy review of policies, requires a focus on the program's mission, results in program improvement and renewal, and provides a framework for the growth of the program.

VETERINARY

Continued from 1

cal research programs have been funded.

Nine teams of faculty members representing the departments of Small Animal Clinical Sciences, Large Animal Clinical Sciences, and Biomedical Sciences and Pathobiology were awarded almost \$53,000 in funding during the event.

ESM

Continued from 3

"Aaron is truly passionate about the environment," said University Honors Program Associate Director Barbara Cowles, who nominated Barr for the Cooke scholarship. "One day recently Aaron was walking through the Hillcrest living room, carrying two boxes and smiling. One of the other students said, 'There goes Aaron with a smile on his face because he's recycling.'"

In addition to majoring in ESM, Barr is working toward a minor in mathematics and a concentration in green engineering. He has maintained an overall GPA of 3.9 (out of a possible 4.0).

The Cooke scholarship will cover all of his tuition, room and board, student fees and book costs. The scholarship also includes an annual stipend of about \$10,000.

SUCCESS

Continued from 3

which used \$13,200 to improve new students' research skills.

Each spring, the Student Success program solicits proposals from the university community for two types of projects: innovative interventions, which directly involve students by offering new student-support services, and research projects, which study an existing program's impact on student success.

"Each project type is subject to different evaluative criteria, thus resulting in different amounts of funding necessary to facilitate the academic success of participating students," Johnson said.

He noted that although the funds awarded to the Student Success initiative have been affected by state budget cuts, the program is ongoing and will continue to assist undergraduate students.

A new set of projects, 11 in all, is now under way with the express mission of improving the retention and success of Virginia Tech's students.

For more information contact Johnson at 1-9595.

PHOTONICS

Continued from 1

coal gasifier the temperature can reach as high as 3,500° Fahrenheit. The sensors that CPT will develop with DOE funding will be based on single-crystal sapphire, which has been

shown to be an excellent material for such high-temperature applications due to its high melting point, superior transparency, and ability to resist corrosion.

The CPT is a research-and-education center of the Bradley Department of Electrical and Computer Engineering.

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