

SPECTRUM

Virginia
Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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TODAY'S EDITION

See page 2
for university
achievers.

Holford named interim director of Northern Virginia Center



HOLFORD

By Carolyn Fray

Elyzabeth Holford, director of Equal Opportunity/Affirmative Action and associate professor, has been selected to serve as interim director of the Virginia Tech Northern Virginia Center (NVC) in Falls Church effective August 1.

In her new position, Holford will oversee operations at the Northern Virginia Center including facilities and fiscal management, information systems, marketing-recruitment activities, community outreach, information systems, and student services.

"Elyzabeth brings to the position strong leadership skills and in-depth knowledge of Virginia Tech," said Provost Peggy Meszaros. "At a time when we are growing by leaps and bounds in Northern Virginia, her skills and knowledge will be put to good use."

Before serving as director of Equal Opportunity/Affirmative Action, Holford was assistant dean of the former College of Education. In that position, she served as chief financial and

personnel officer of the college, advising the dean on financial, personnel, and legal issues. She also participated in a full programmatic review of the college, which resulted in a major restructuring.

In her career, she has also served as an attorney in private practice and as a managing attorney at the State of Ohio Department of Taxation.

Holford received a B.A. from Indiana University, an M.A. from Ohio State University, and a J.D. from the University of Dayton School of Law.

The Northern Virginia Center, located adjacent to the West Falls Church Metro station, is a 105,000-square-foot facility shared with the University of Virginia. At the site, Virginia Tech offers 38 graduate programs for working professionals as well as short courses and seminars through the Office of Continuing Education. Approximately 1,700 students attend classes at the NVC each semester.

Pamplin, CIT form info-tech center

By Sookhan Ho

The Pamplin College of Business has established a new research center for information technology at Virginia Tech's Northern Virginia Center. The Systems Integration Center is a collaboration with the state's non-profit Center for Innovative Technology and two global professional consulting firms, EDS and KPMG.

The center is co-directed by Parviz Ghandforoush, professor of management science and information technology, and Tarun K. Sen, professor of accounting and information systems. A significant part of the information-technology needs of businesses and government agencies in Northern Virginia revolve around systems integration, Ghandforoush said. "The explosive growth of systems-integration businesses here has created a need for a joint industry-academic forum."

The CIT and the two companies will assist the center in generating funds for its activities, Sen said. The CIT has given \$26,000 towards the center, while KPMG is contributing software and consulting hours. KPMG and EDS, he said, were among the companies that provided support for "a very successful conference" on data warehousing at the Northern Virginia Center last fall. The center will be guided by an advisory board that will include Pamplin faculty members and representatives from top information-technology firms.

Systems integration is the business of merging diverse information systems to provide information in a timely and organized way to an organization's managers. Sen said that large companies, for example, typically have separate information systems for different functions—accounting, manufacturing, inventory control, human-resources management, and marketing.

These days, the applications software for such systems, rather than being written

(See PAMPLIN on 8)

Patent issued for enzyme-production process

By Susan Trulove

The U.S. Patent and Trademark Office has issued patent 5,929,304 for "Production of Lysosomal Enzymes in Plant-based Expression Systems" to Carole Cramer, Virginia Tech professor of plant pathology, physiology, and weed sciences, Karen Oishi, vice president of research at CropTech, David Radin, president of CropTech, and Deborah Weissenborn, director of regeneration and propagation at CropTech.

The researchers are using tobacco plants to produce human lysosomal enzymes. These enzymes are deficient in individuals with rare lysosomal storage diseases, such as Gaucher's disease. Replacement therapy with recombinant enzymes holds tremendous promise for correcting the severe abnormalities associated with these diseases, Cramer said.

One enzyme, glucocerebrosidase (hGC), is currently produced using a mammalian-cell-culture system. Patients usually receive the treatment every two weeks for life. Treatment costs currently average \$160,000 a year, making this one of the most expensive drugs in the world, in large part due to manufacturing costs.

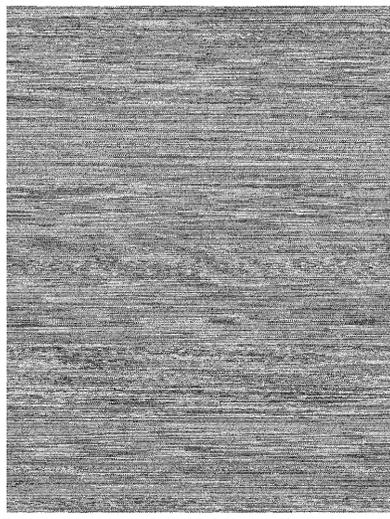
CropTech researchers have put the gene for glucocerebrosidase into tobacco and shown that an enzymatically active enzyme is produced in tobacco leaves. In the plants making glucocerebrosidase at the highest levels, leaves from a single tobacco plant could make enough enzyme for one dose.

Many human proteins, like glucocerebrosidase, also contain sugars called glycans as well as amino acids. Tobacco puts glycans on the right spot on the human protein but the exact composition of the sugars may be dif-

(See PATENT on 8)

Senatorial Consultation

U.S. Senator John Warner, right, was on campus Monday to discuss issues such as the drought, and the university's accomplishments in biotechnology research with President Paul Torgersen and other Tech officials. (B. Veltri)



Opportunities abound for minority-group interns

By Stewart MacInnis

Thirty-three minority and women students from colleges and universities across the Eastern U.S. spent their summer at Virginia Tech in research internships as part of the university's Minority Academic Opportunities Program.

The program ends today, with a recognition banquet in Owens Hall.

The university-wide program is administered by Randy Grayson and Larry Moore, faculty members based in the College of Agriculture and Life Sciences.

"This is the largest group of interns we've ever had," Grayson said. "The caliber of the students continues to increase. I am very pleased

with the young people participating this year. The interest and involvement of the faculty members participating in this program makes this an exciting experience for these students."

During the summer program the interns spend 10 weeks on the Virginia Tech campus, working 40 hours a week on original research projects supervised by faculty advisers. The research is on a subject of the students' choice within one of the university's six colleges that are part of the program.

The basic requirements are that students should be in the first generation of their families who will graduate from college; or they must be studying in fields under-represented by minori-

ties or women; and they must demonstrate financial need.

The program works to increase the academic competitiveness of the students, resulting in their scores on the Graduate Record Examination improving by an average of 200 points. The program pays for the student to take the GRE test. Additional benefits include free room and board, a stipend, possible credit hours at their home colleges for their research work at Virginia Tech, as well as other benefits.

Grayson started the program in an attempt to provide the tools minority students

(See OPPORTUNITIES on 8)

NEWSMAKERS

Virginia Tech faculty and staff members and students are often the subject of significant national and state-wide news coverage. To better inform the university community about these accomplishments, the Office of University Relations has compiled this monthly report. This report excludes coverage in the Roanoke news-media market. For more information about the articles mentioned, call Julie Kane, university public relations specialist, at 1-9934, or contact your college public-relations office.

Graduating Engineer and Computer Careers (April 1999): This issue included a guest editorial by **Bevlee Watford**, associate dean for academic affairs and director of minority engineering programs for the College of Engineering. Watford wrote about solutions to the problem of declining minority enrollments in graduate engineering.

Techniques (May 1999): Teacher educators **Curtis Finch**, **Betty Heath-Camp** and **Daisy Stewart** were featured on the cover and throughout an article entitled "Solving the Teacher Shortage."

Richmond Times Dispatch (May): Fisheries and Wildlife Science Professor **Jim Fraser** is quoted in a story on removing the bald eagle from the endangered species list.

Sacramento Bee (May 31): **Matthew McAllister**, professor in communication studies, was quoted in a story about the proliferation of ads.

Virginia Public Radio "Evening Edition" (June 1): Center for Interdisciplinary Studies adjunct Associate Professor **Anna Fariello** discussed cultural tourism and its impact on rural

communities and non-profit cultural organizations with Paul Tyler, deputy director of the Virginia Commission for the Arts.

National Geographic (June 1999): **Llyn Sharp** of the Virginia Tech Museum of Natural History in Blacksburg was quoted on the age of the New River in the article "New River's Deep Soul" by **Roff Smith**.

Richmond Times-Dispatch (June 5): An article ran from the Associated Press about the **Virginia Tech Hybrid Electric Vehicle Team** (HEVT), which converted a Chevrolet Lumina into a fuel-cell-powered vehicle for the 1999 FutureCar Challenge in Detroit. The article quoted HEVT leader **Mike Ogburn**, a graduate student in mechanical engineering.

Richmond Times-Dispatch (June 13): **Marshall Fishwick**, professor of communications studies; **Ray Pethtel**, university transportation fellow and associate director of the Center for Transportation Research (CTR); and **Mike Van Aerde**, professor of civil engineering and CTR associate director, were quoted the lead feature story on interstate highways in a special section on "Driving Virginia."

Contra Costa (California) **Times** (June 14): **Mary Kasarda**, assistant professor of mechanical engineering, was quoted in an article about the use of magnetic bearings to replace ball bearings in industrial machinery.

Fox TV News (June 22): **Scott Geller**, psychology professor, was interviewed extensively about road rage.

Campus with Women (published by the American Association of Colleges and Universities) (Spring 1999): **Carol**

Burger of the Center for Interdisciplinary Studies was quoted in a feature story about the Virginia Tech/Virginia Space Grant Consortium professional-development program to assist counselors in developing and implementing gender-equity activities in their school systems. Burger is co-director of the project.

(Bristol) **WCYB-TV** (June 23): **Carol Burger** and **Ruth Alscher** of plant pathology were featured in a segment about the summer science campus they held for middle-school science teachers and girls at Clinch Valley College, Wise, and at the Southwest Virginia Higher Education Center in Abingdon.

(Canada) **National Post** (June 24): **Thomas Ollendick**, psychology professor, and his program for difficult children were featured prominently in a story about "Making unlikeable children likeable—drug-free alternatives."

CNN Headline News, **AP Radio**, **CBS Radio** (June 25): Virginia Tech's research into human factors issues relating to cell phones and other equipment in vehicles was profiled. Center for Transportation Research Director **Thomas Dingus** discussed the scope of the research.

CNN (June 28): English Professor **Nikki Giovanni** commented on Rosa Parks' role in the U.S. Civil Rights movement as part of CNN's "Voices of the Millennium" series.

ABC TV Affiliates (July 27): Center for Transportation Research Director **Tom Dingus** and University Transportation Fellow **Ray Pethtel** described Virginia Tech's Smart Road research in a feature distributed by the network to affiliates throughout the country.

ACHIEVERS

Earl Kline from the Department of Wood Science and Forest Products, **Richard Connors** from the Department of Electrical and Computer Engineering, **Philip Araman**, senior research scientist in wood products under the USDA Forest Service, and **Thomas Drayer**, a former Ph.D. student in electrical and computer engineering, have been awarded the National Hardwood Lumber Association's 1999 Hardwood Research Award. This award recognizes Virginia Tech's pioneering research in the development of Machine Vision Technology for the forest-products industry. Developments in this research have resulted in two patents and a commercial license to a forest-products equipment manufacturer.

At the annual Southern Region Extension Forest Resources Specialist meeting held at the Southern Forestry Conference in Nashville, two department of Forestry faculty members received awards for excellence in Extension programming. Extension Associate **Dylan Jenkins** received the award for outstanding forestry newsletter for the *Virginia Forest Landowner Update*, a quarterly newsletter and calendar of educational events that is mailed to about 18,000 forest landowners and resource professionals each quarter. The publication is also produced in electronic form and maintained on the World Wide Web. Extension Forestry Specialist **James Johnson** received an award for excellence in technology-transfer programs. During 1996 Johnson worked on a U.S. Forest Service-funded project to evaluate new harvesting methods for Appalachian hardwood forests as an alternative to traditional clearcutting. As a result of the research project, Johnson, and the Forest Service initiated an aggressive technology-transfer program through a series of publications, presentations at workshops and conferences, training programs, and inclusion of the new technology and management recommendations in a three-week contract short course for U.S. Forest Service foresters from throughout the eastern United States.

Clarra Morton, associate director of University Unions and Student Activities (UUSA), presented papers in March at the Association of College Unions Annual Conference in Dallas. Topics of the presentations were "Administration of the College Union at Historically Black Colleges and Universities" and "An Educational Approach to Designing Student Employment

Programs."

Morton served as an invited presenter at Enhancing Learning and Leadership through Student Employment in June at Marquette University. She presented the session, "Using Computer Technology to Enhance Student Employee Training Programs."

Morton has also been selected to serve as a member of the Conference Planning Committee for the Association of College Unions Annual Conference, 2000.

Harry M. Kriz, head of the Interlibrary Loan Department in the University Libraries, gave a featured presentation titled "Interlibrary Loan: A Value-Added Library Strategic Service" at the NYLINK conference in Syracuse, N.Y., in May.

Shirley Luckhart, assistant professor of biochemistry, was invited to make a presentation concerning her work to the Third Gordon Research Conference on Nitric Oxide in Biochemistry and Biology in Ventura, Calif., in February. Her presentation was entitled, "Inducible invertebrate nitric oxide: mosquitoes and humans share a defense against malaria parasites."

Peter J. Kennelly, professor of biochemistry, and **Robert H. White**, associate professor of biochemistry, attended a Keystone Symposia on "Archaea: Bridging the Gap Between Bacteria and Eukarya" in Taos, N.M. in January.

The University of Illinois Press has published *Capitalism, Democracy, and Ecology: Departing from Marx* by **Timothy W. Luke**, professor of political science. This book continues the critical analysis of environmental politics and economic policy in the United States that Luke began in his *Ecocritique: Contesting the Politics of Nature, Economy, and Culture*, published in 1997.

The fourth edition of *Empirical Political Analysis* by co-authors **Jarol Manheim** of George Washington University and **Richard Rich**, chair of Virginia Tech's Department of Political Science, has been translated into Chinese by the Wu-Nan Book Company under agreement with Longman Publishers USA. This is the fifth translation for this book, which was the first social-science research-methods text to be translated into Russian and Arabic.

Kay Castagnoli, senior research associate in the Harvey W. Peters Research Center in the Department of Chemistry, chaired a session on Neurodegenerative Diseases and gave a plenary lecture titled "Neurotoxicity and Neuroprotection" at the 8th Cyprus Conference on New Methods in Drug Research in Limassol, Cyprus.

Darleen Pryds, assistant professor of medieval and renaissance studies in the Center for Interdisciplinary Studies, has been awarded a Residential Fellowship at the Medieval Institute at the University of Notre Dame. She will be at Notre Dame in fall to conduct research on her book on lay preaching in Medieval Europe.

Stephanie Lee Sargent, assistant professor of communication studies, **James B. Weaver III**, professor and head of the department of Communication Studies, and **Matt McAllister**, associate professor of communication studies at Virginia Tech, attended the 49th annual conference of the International Communication Association in San Francisco. Sargent presented a competitively selected paper before the Information Systems Divisions titled "Image Effects on Selective Exposure to News Stories." The paper was co-written with Dolf Zillmann of the University of Alabama. Weaver chaired a panel of competitively selected papers entitled "Decision Making in Groups" before the Information Systems Division. McAllister, serving as chair of the Popular Communication Division, coordinated the selection and scheduling of 16 conference programs, including 10 sessions that involved the presentation of 53 competitively selected papers and six competitively selected panel sessions.

John Cairns, university distinguished professor of environmental biology emeritus, cut a video in June that served as an invited plenary session address at the International Symposium on "The Future of the Universe and the Future of Our Civilization," held in Budapest, Hungary, in July, in conjunction with the World Science Conference. His paper, "The Quest for Immortality on an Unsustainable Planet," was one of four plenary-session presentations from the United States. In his paper, Cairns argues that, although life spans are increasing, there is still hope

(See *ACHIEVERS* on 5)

Travel in China affords wide variety of experiences

By Susan Trulove

The opportunity for several Virginia Tech staff members and students to visit China came at a time that the university is emphasizing the study of that country. The University Office of International Programs' "Focus on Greater China" began last year and will continue through next year. In July, Virginia Tech staff and students visited the People's Republic of China to recruit students, meet alumni, establish research opportunities, and learn of opportunities for intellectual exchange.

Martha Johnson, assistant dean of graduate education, visited the campus of Tsinghua University in Beijing, "which is thought by many to be the number-one technical university in all of China," she said. Tech enrolls a number of graduate students from Tsinghua, particularly in aerospace engineering. "We would like to recruit more students from Tsinghua University," Johnson said.

The Tech contingent also visited Xi'an High School, where Lee Drowne, assistant director of undergraduate admissions, plans to recruit students for Tech's undergraduate programs. "We already have a connection to Xi'an

High School," Johnson said. "Wang Guangjiou, deputy principal, is the father-in-law of Yilu Liu, Tech faculty member in electrical and computer engineering.

Xi'an High School proclaims itself to be the "number-one high school for development for high-tech industries." Johnson said, "Xi'an is a rapidly developing city that may be for China what our Silicon Valley is for us. It is a progressive city with a great deal of construction of businesses and homes for professional people. And a huge stadium is being built on the outskirts of town."

One of the highlights of the trip was the opportunity to participate in a discussion with the vice minister of education, Zhang Baoqing. Jianliang Wang, associate professor of education at Western Kentucky University, arranged the discussion with the vice minister and a group of public-school superintendents and administrators, which included the Virginia Tech group.

Johnson said the vice minister outlined the nation's plans for education in China in the next three to five years. "They want to move more in

(See TRAVEL on 4)



Characters denote Tsinghua University.

Evaluation training to be offered

Personnel Services is currently preparing for the 1999 Performance Evaluation Process. Supervisors may begin evaluating their employees August 1; completed performance evaluations are due in Personnel Services by 5 p.m. Friday, Oct. 1.

Performance Evaluation Training for Supervisors

Supervisory training for particular departments, including some off-campus sites, will be available beginning mid-August. Administrators may contact the human-resources consultant serving the specific college or vice-presidential area to arrange a special training session. In addition, open-enrollment sessions are scheduled.

(See EVALUATION on 8)



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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VIRGINIA TECH RECYCLING

Changes Upcoming in Recycling

By Larry Bechtel, Virginia Tech Recycling

As a result of the April 1, 1999 discontinuation of mixed-paper collection, campus recycling totals dropped off dramatically and due to confusion over what was and not recyclable, contamination increased significantly.

However, support for recycling among faculty and staff members remained strong. Sustained by this, and based upon a waste-stream audit performed by Environmental Systems of America in late April, VT Recycling (VTR) worked with the Town of Blacksburg and the Mid-County Recycling Center through the spring and early summer to get recycling back on track.

Beginning Monday, Aug. 16, VTR will collect the following grades of paper for recycling: sorted office paper, glossy magazines and catalogs, and newspapers. These are exactly the same grades currently collected through Blacksburg's curb-side program.

Guidelines for these grades of paper are as follows:

Sorted office paper: computer printout, copier/typing paper, pastel colored sheets, manila folders, envelopes (with and without envelopes), carbon-less paper, pamphlets/brochures, and fax paper.

Unacceptable items: ream wrappers, dark colored folders, neon-bright sheets, cereal-type boxes, paperback books/directories, carbon paper, and Tyvek envelopes.

Glossy magazines and catalogs: any magazine or catalog with all glossy pages.

Unacceptable items: magazines or catalogs with glossy covers only and newsprint-type pages.

Newspapers: all pages that come with daily or Sunday newspaper—comics, glossy inserts, and news pages.

Please note that any papers once recycled

as white paper are considered sorted office paper. Sorted office paper includes most, but not all, of what used to be recycled as mixed paper.

Transparencies continue to be a problem. They must be sorted out of paper recycling boxes.

Carbon paper is perhaps the single most-damaging contaminant. The Recycling Center will immediately reject whole loads of VT paper if workers detect any carbon paper.

The VTR office will be working with the custodial staff to re-label all stackable paper recycling bins on Friday, Aug. 13. If stackables in your office area have not been re-labeled by August 16, contact VTR. For those with the desk-side Hokie Cyclers, VTR will have new guideline labels available for the front of these boxes. Contact VTR for delivery.

For more information, contact the VTR Office at 1-9915 or lbechtel@vt.edu.

New specialist tackles urban pest problems

By Stewart MacInnis

Today's methods of controlling urban pests are safer and more effective than ever before, but homeowners need to know more about the many new products available to decide which are best for them, according to Virginia Cooperative Extension's urban-pest-management specialist.

Dini Miller was recently appointed urban-pest-management specialist for Extension. She joined the Virginia Tech faculty this spring as an assistant professor of entomology.

"Dr. Miller has expertise in an area that is of major importance to many urban residents and homeowners everywhere," said Timothy Mack, head of the university's department of entomology. "This is a very important capability for Virginia Tech and for Extension. Many of these pests are not only nuisances, the damage they cause is a definite economic and health concern for families and for the commonwealth."

Miller is planning an energetic Extension program to help homeowners deal with pests, to work with school divisions to reduce the amount of pesticides children are exposed to in schools,

and to revive an annual conference to update pest-control professionals on developments in the field.

In addition, she will teach at Virginia Tech, and she will conduct several research projects concerned with urban pests.

Virginia Cooperative Extension, a part of

Virginia Tech and Virginia State University, provides scientific information that citizens can use to improve their lives at work and home. Extension is a cooperative effort of local governments, state government, the land-grant universities, and the U.S. Department of Agriculture.

Vet Med announces new faculty members

By Jeffrey S. Douglas

The Virginia-Maryland College of Veterinary Medicine has hired two new faculty members in the Department of Small Animal Clinical Sciences.

H. Marie Suthers-McCabe will serve as a companion-animal Extension specialist and focus on human-companion-animal interaction. Suthers-McCabe earned her B.S. in zoology and her DVM at Ohio State University. She previously served as the program director of the Veterinary Technology Department at Columbus State Community College. Suthers-McCabe has been active

nationally in veterinary-technology training and has had additional training in animal-assisted therapy, pet partners and veterinary homeopathy.

Zorana Ristic has joined the VMRCVM as an assistant professor in the Department of Small Animal Clinical Sciences. Ristic, a veterinary dermatologist, earned her DVM at the University of Giessen in Germany and completed a two-year residency in dermatology at the University of Georgia, where she also served as a clinical instructor. She has been in private practice in Germany for the past several years.

ACTIVITIES

EVENTS

Thursday, 5
Classes End.

Friday, 6
Exams Begin.

Saturday, 7
Exams End.

Wednesday, 11
With Good Reason, 7 p.m., WVTF: "Danville and the Unrest of 1963."

Monday, 16
Salary and Wage Paydate.
GTA Fall Workshop.

Tuesday, 17
GTA Fall Workshop.

Wednesday, 18
GTA Fall Workshop.
International Student Orientation. 8:30 a.m.-5 p.m., Squires Colonial Hall.
With Good Reason, 7 p.m., WVTF: "Shoo, Flea."

Thursday, 19
International Student Orientation. 8:30 a.m.-5 p.m., Squires Colonial Hall.

NetBasics course offered by library

Professors or instructors teaching large classes of first-year students are asked to encourage them to attend a NetBasics session.

The New Media Center—2038 Newman Library—offers NetBasics Sessions for new students requiring assistance in using their computers to access information. The class includes a brief overview of the requirements for connecting to the network, various resources in Information Services such as the Library's Electronic Reserve system, public computer labs, and the Techconnect help desk.

Following the overview, participants have hands-on opportunity to explore Outlook Express e-mail, various campus web pages and some of the Virginia Tech Libraries' resources available via the web.

Thirty-four first-come, first-served classes are offered from August 20 through September 5. Flyers giving exact times are available in dorms, computer labs and Newman Library. For more information check <http://www.lib.vt.edu/learning/> or call 1-6170 or e-mail netbasics@vt.edu.

Consulting center schedules break

The Statistical Consulting Center will not be accepting clients beginning Wednesday, Aug. 11 through Thursday, Aug. 19. The center will begin accepting new clients on

BULLETINS

Friday, Aug. 20. Current clients who have been assigned to consultants should check with their consultant as to their availability during this break.

Traffic delays expected

Be prepared for traffic slow-downs and some delays on West Campus Drive the weekend of August 7-8. The road will narrow to one lane at selected work sites on between the Drillfield and Washington Street from 7 a.m.-7 p.m. on both days. A police office will assist in directing traffic. Campus employees are encouraged to take an alternative route and avoid the traffic delays. This project is weather-dependent and may be delayed by rain. For more information, call 1-4548.

Y2K Employee Awareness Campaign set

The Commonwealth's Century Date Change Initiative (CDCI) Office has established a campaign to ensure the state's employees are aware of the Y2K issue. A video developed by the CDCI office will be broadcast on campus cable August 9-13 and August 16-20. The video, which runs approximately 12 minutes, will be available for viewing during these periods in the morning from 8-9 a.m. and in the afternoon from 2-3 p.m. on channel 9. If viewing the video during these scheduled times is not possible

a copy can be checked out by contacting Jeb Stewart at 1-2134 or e-mail jeb@vt.edu. Additionally, a Y2K-awareness brochure is available on Tech's Y2K web page located at <http://www.ais.vt.edu/ais/Y2K/Yr2000.html>.

Nominations sought for grant of \$500,000

The Alan T. Waterman Award committee invites nominations of candidates for the 25th Waterman Award, which will be presented in May 2000.

The award is presented annually by the National Science Foundation and National Science Board to an outstanding young researcher in any field of science or engineering funded by the National Science Foundation. It consists of a citation, a bronze medal, and a non-restrictive grant of \$500,000 over a three-year period for scientific research or advanced study in the biological, mathematical, medical, engineering, physical, social or other sciences at the institution of the recipient's choice.

Questions concerning the procedures, requests for additional information, or nomination or reference forms should be directed to the Committee's Executive Secretary, Susan Fannoney, by e-mail at sfannone@nsf.gov or by telephone at (703) 306-1096. Nominations and references must be postmarked by October 31.

VIED provides development training

By Catherine Doss

Community leaders interested in learning how to develop their local economies can get the information they need at the Virginia Institute for Economic Development (VIED).

Now in its seventeenth year, this institute will be held this fall at Virginia Tech on September 20-22 and at the Hotel Roanoke and Conference Center on October 18-20. Participants must attend both sessions.

"The institute provides training to community leaders in the economic development process to help further economic growth in Virginia's cities, counties, and towns," said Ellen Agee, economic-development specialist with Virginia Tech's Public Service Programs. The institute is coordinated jointly by Public Service Programs, a unit of the university's Outreach Division; the Virginia Department of Business Assistance; and the Virginia Economic Development Partnership. Program sponsors include Virginia Economic Developers Association, American Electric Power, the Cen-

ter for Innovative Technology, Columbia Gas of Virginia, GTE, and Virginia Power.

Institute participants learn about specific programs for community economic development, learn about successful local and regional economic-development initiatives, expand their network of economic-development leaders, and apply their knowledge to their community's development.

In addition to the two classroom sessions, the institute provides a tour of a local manufacturing plant, use of a computer lab, and weekly reading assignments for home study. Individuals who finish the program receive a certificate of completion.

Recent graduates of the institute include members of boards of supervisors, county administrators, and county staff members interested in economic-development activities.

For more information, contact Ellen Agee, economic-development specialist with Public Service Programs, by telephone at 1-6638 or by e-mail at eaagee@vt.edu.

VMRCVM to host foundation meeting

By Jeffrey S. Douglas

The Virginia-Maryland Regional College of Veterinary Medicine will host the fourth annual fall meeting of the Geraldine Rockefeller Dodge Foundation's "Frontiers for Veterinary Medicine" October 28-31.

During the meeting, over 40 veterinary student fellows from around the nation, Canada and Mexico will present the results of their summer research projects conducted on topics including research on companion animals, veterinary ethics, livestock and agriculture, wildlife, ecology, laboratory-welfare and human-wildlife interactions.

The purpose of the Frontiers for Veterinary Medicine Summer Grants for Veterinary Students initiative is to provide talented and motivated veterinary students with the opportunity to step outside the traditional boundaries of veterinary education and develop new perspectives on animal-related issues, according to Brett Anderson, program assistant

for the Geraldine R. Dodge Foundation.

As a part of the program in 1997, VMRCVM veterinary student Michelle Weisbarth was funded to conduct preliminary work on the development of a genetically modified immuno-contraceptive vaccine for feral cats. That worked served as the foundation for a major research effort now under way in the college. Other VMRCVM veterinary students funded through Frontiers for Veterinary Medicine include Virginia Clarke who participated in 1998, and Leela Noronha and Rachel Weiss who both participated in 1999.

The Geraldine R. Dodge Foundation responds to proposals in the areas of welfare of animals, secondary and elementary education, critical issues: environment and population and the arts in New Jersey. The foundation, which was created in 1974, also develops initiatives that are likely to improve the quality of life in these areas.

TRAVEL

Continued from 3

the direction of U.S. education—that is, to encourage creativity and individual thinking. The vice minister admits that this will require better trained teachers."

He said that the present emphasis on conformity hinders economic development—as does the practice in some rural areas of not educating girls, Johnson said. "China wants to improve and expand public education, including building community colleges and schools for part-time students, updating teaching materials and curriculum, and increasing teacher training. They are seeking private business investment to speed the process," Johnson said.

She said the vice minister said the first priority is pre-school and the elementary grades. "There are 30 million children enrolled in pre-school."

Johnson and Drowne, and others from Tech, including Michael Perry, Ph.D. candidate in educational leadership and policy, visited China as part of the "China 'Experience,'" a travel/professional study program to the People's Republic of China for professional educators, sponsored by Virginia Tech's Department of Educational Leadership and Policy Studies, Murray State University, Beijing Normal University, and the People's Education Press of China. It was the seventh annual tour organized by David Alexander of Virginia Tech, who has been to China many times, including as a Fulbright fellow in 1997.

The Virginia Tech group also met with the Hong Kong alumni chapter, headed by Kang-Chuen Kong an electrical-engineering alumnus.

In Hong Kong, the tour group met with Eliza Chiang-Yick Tse, associate professor of hospitality and tourism management at Tech who is on leave doing research at the Chinese University of Hong Kong. "Dr. Tse will also serve as our local contact for the recruitment of graduate students from Hong Kong," Johnson said. "And she suggested several areas where there are opportunities in Hong Kong for our faculty members to offer graduate education through distance learning, an area where other nations already have a strong presence."

The year-long "Focus on Greater China"

has been the pilot program of Virginia Tech's effort to inform U.S. students and the community about developments in the world by focusing upon a different nation of the world each year for an entire academic term. The Focus on Greater China, which includes the People's Republic of China and Taiwan, is being continued a second year, until Spring 2000. There were lectures throughout the spring term and an essay contest. There will be additional presentations highlighting Chinese history, culture, philosophy, art, music, and current events. Activities in connection with the Chinese New Year celebration and the annual International Week are planned.

For more information, contact David Britt, 1-6459 or visit www.vt.edu:10021/international/CHINA/index.html.

ACHIEVERS

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for "both achieving sustainable use of the planet and making conditions attractive for increased longevity."

Cairns, also learned that his classic book, *Restoring Aquatic Ecosystems: Science, Technology, and Public Policy*, published by the National Academy Press in 1992, is being reprinted again because it is one of the National Academy Press's bestsellers. Cairns is now approaching 1,400 publications, having published 56 books and monographs, 28 bulletins, 275 chapters in books, 551 scientific articles, 308 abstracts, and 115 editorials, book reviews, and congressional testimonies, for a total of 1,363 publications.

Melinda V. Crowder, assistant director for assessment for University Unions and Student Activities, received a grant from the Division of Student Affairs to conduct an assessment project.

The project will be conducted during the 1999-2000 academic year with former students of Virginia Tech who have been out between one to three years. The project will involve alumni and the applicability of their student leader skills to their current employment/life.

John Wenrich has been elected to serve as the fourteenth president of the Virginia Society for Technology in Education. VSTE was founded in 1986 as the Virginia Educational Computing Association and is Virginia's affiliate of the International Society for Technology in Education (ISTE).

Membership is comprised of more than 1,500 teachers, principals, technology specialists, superintendents, subject area specialists, department heads, university faculty members, Department of Education staff members, and others who are interested in promoting technology's role in education and participating in the synergistic give-and-take which occurs when educators get together to share their common interests.

As president, Wenrich will oversee the running of the state-wide technology organization. In addition to participating in state-wide technology projects, VSTE members take a leadership role in the state by encouraging the innovative use of technology in education. VSTE sponsors the only state-wide annual conference devoted to all aspects of technology in education, with sessions ranging from specific curricular applications to administrative and management concerns.

Wenrich is the associate director of the Institute for Connecting Science Research to the Classroom. He earned a doctoral degree in instructional technology from Tech in 1998.

Twenty-one students were inducted into the Virginia-Maryland Regional College of Veterinary Medicine's most prestigious academic honor, the National Society of Phi Zeta during recent ceremonies. Over \$5,000 in scholarship support was presented during the event.

Fourth year veterinary students participate in three-week off-campus elective clerkships that sometimes involve national and international travel. The scholarship support is designed to assist students in meeting some of the expenses incurred during these educational opportunities.

Class of 1999 members inducted were **Beverly Ann Bevan, McGregor Ferguson, Julie M. Meadows, Matthew E. Nicholson, Jeffrey C. Norton, Kathryn E. O'Connor, Shana Lynn Patrick, Dana Susan Reeder, Jacque Schuder, Eva Ann Steele, Phillip A. Washington, and Matthew Wright.**

Class of 2000 members inducted were **Douglas J. Amspaugh, Matthew Baechteld, Roy F. Barnes II, Matthew Harold Distler, Michael J. Fry, Diane Lorraine Heinz, Julie Dinwiddie McGhee, Christiana Lynn Ober, and Jeremy V. Smedley.**

Kimberly Anne May, a resident in clinical services/surgery in the department of Large Animal Clinical Sciences and **Catherine E. Thorn**, a clinical instructor in the Department of Biomedical Sciences and Pathobiology were also inducted during the event.

The Chi Chapter of Phi Zeta also awarded prizes to **Jonathan Fox**, a graduate student in the Department of Biomedical Sciences and Pathobiology, for his work in basic sciences, and to May for her work in the clinical sciences.

Membership in Phi Zeta is open to faculty members and graduate students who have made significant contributions to veterinary medicine and to veterinary students who rank in the top 10 percent of the third-year class and the top 25 percent of the fourth-year class.

Robert L. Youngs, professor emeritus of wood science and forest products, is the author of a chapter "Development of the Science and Technology of Wood and Fiber and Their Products" in *Forest and Wildlife Science in America: A History*, published by the Forest History Society in Cooperation with the USDA Forest Service.

Andy Dolloff, professor of fisheries and wildlife and graduate students **Martin Underwood, Kevin Leftwich, Mel Warren, and Wendell Hagg** received two awards from the USDA-USFS. They were "Chief's Award for Technology Transfer" (June 1999), and "Rise to the Future Award for Collaborative Aquatic Resource Stewardship" (May, 1999).

John Seiler, professor of forestry, was a co-author of the cover story for *Journal of Forestry*, titled "Elevated Carbon Dioxide in the Atmosphere-What Might It Mean for Loblolly Pine Plantation Forestry?"

Lynn Brammer has been awarded the Veterinary Teaching Hospital's Annual Staff Award For the second time. She was also recognized for her exemplary service in 1989.

Brammer began working at the VMRCVM in the Veterinary Teaching Hospital in 1983 and has risen through the ranks as an animal-care technician. As an animal-care technician, Brammer works closely with fourth-year students who are learning clinical skills along-side faculty members, residents and interns in the Veterinary Teaching Hospital.

Bonnie J. Smith, an assistant professor in the department of Biomedical Sciences and Pathobiology at the Virginia-Maryland Regional College of Veterinary Medicine, has recently authored a book titled *Canine Anatomy*. The 619-page book was designed to provide an overview of canine anatomy for those in the veterinary medical field.

The publisher, Lippincott Williams & Wilkins, invited Smith to write the book. It is one of eight in their National Veterinary Medical Series, which is a concise, dependable review for the veterinary board exams. Each title focuses on the most current and clinically relevant information for diagnosing and treating a wide variety of problems.

The text is presented in a brief outline format that makes specific points easy to find and reference. Each of the 62 chapters includes a set of questions written in the National Board Exam format and provides expanded answers that highlight critical points.

Virginia Tech communicators received several national awards from the National Federation of Press Women during its recent conference in Nashville.

Clara B. Cox, manager of public service communications in University Relations and managing editor of *Virginia Issues & Answers*, won first place for non-profit one-to-three color magazine with four-color cover (team entry with **Meg Nugent**) for *Virginia Issues & Answers* and first place for books edited by entrant for *A Special Place for 200 Years: A History of Blacksburg, Virginia*.

Nugent, graphic designer in University Relations/Publications, won first for an ad campaign or series in a newspaper for the Northern Virginia Center campaign and first for *Virginia Issues & Answers* (with Cox). She won second for a single newspaper ad for the Northern Virginia Center ad and second for page layout in publications for general or specialized circulation for the MBA program in Northern Virginia, the dust jacket for *Blacksburg—A Special Place for 200 Years: A History of Blacksburg*.

Lynn Nystrom, director of news and external relations for the College of Engineering, won first place for news releases on science and health. She wrote articles on the work of three engineering professors, **Rick Claus, Bill Velandier, and Kent Murphy**, and a student project on magnetic propulsion. She also won a second place for caption writing for the College of Engineering's annual report and honorable mentions for a single press release and for advising the *Collegiate Times*.

Susan Trulove, public-relations coordinator for Research and Graduate Studies, won a third in special articles on the environment and ecology for articles about research by chemistry professor **David Kingston**, biology graduate student **Mathew McTammany**, and the Mobil and Portable Radio Research Group.

Virginia Tech's student chapter of the Forest Products Society has won second place in the seventh national timber bridge design competition. Faculty advisor and Associate Professor of Wood Science **Audrey Zink** said the students' entry earned a \$1,500 award for their quality efforts.

Fourteen teams of students from mainly civil engineering programs and only three forest products programs competed for the prize money. Each team designed, constructed, and tested their bridges on their home campus, then submitted documentation of their activities and results to a panel of judges for review. The competition was also shown on line, as each team was required to post design drawings, test results, and project highlights on the web.

Virginia Tech won second place for performance or support structure and second place for the best deck. The test bridge was approximately 11 feet long and five feet wide and was loaded with a test weight of about 4,500 pounds.

David R. Winston, coordinator of Virginia Cooperative Extension's state dairy youth program, received the Young Agricultural Alumni Citation for his service to Virginia Tech, to the university's College of Agriculture and Life Sciences, and to the state.

Winston earned his bachelor's degree in 1987 and master's degree in 1998, both in dairy science. He was an agriculture and natural resources Extension agent in Amelia County, and dairy agent for Extension's Central District.

In 1994, he was appointed Extension dairy scientist with 4-H Youth responsibilities. He is adviser to the Virginia Tech Dairy Club, adviser to the Virginia State Dairy Association's dairy youth committee, treasurer of the Virginia Tech Dairy Science Alumni Association, and treasurer of the Montgomery County Human Relations Council. He is also active in state fair dairy events, as well as a number of professional and dairy-industry organizations.

Robert Smith, assistant professor in wood science and forest products, co-authored with graduate student **Delton R. Alderman Jr. and V. Reddy**, former student, "Assessing the Availability of Wood Residues and Residue Markets in Virginia," an article appearing in the *Forest Products Journal*, Vol. 49. He co-authored with **A.L. Hammet**, associate professor in wood science and forest products, also in the *Forest Products Journal*, "Evaluation Forest-Based Economic Development Training Needs in Virginia." Smith co-authored with **Robert Bush**, associate professor in wood science and S.A. Bowes, a graduate student, "A Perceptual Investigation into the Adoption of Timber Bridges: A National Comparative Study," in the *Wood and Fiber Science*, Vol. 31.

Smith also co-authored with **R. Bush, E. Hansen**, former student and **Hammet**, "Identifying Educational Needs in the Disciplines of Wood Science and Technology" for the Conference Proceedings of the Fourth International Conference on the Development of Wood Science, Wood Technology and Forestry, in an English publication at Buckinghamshire Chilterns University College.

Smith along with graduate student **W. Spradlin** and public relations specialist **S. Goman** authored "Decision Maker's Perceptions of Wood in U.S. Infrastructure Markets" in the *Research Update from the Center for Forest Products Marketing and Management*.

Smith also authored "Can You Use the Internet to Sell Forest Products," appearing in the *Northern Logger and Timber Processor*, publication. Smith along with Spradlin, and Goman authored "Decision Maker's Perceptions of Wood in U.S. Infrastructure Markets" in the *Specialty Food Journal: Value Added Wood in North America*.

Smith and **Earl Kline**, associate professor, wood science and forest products, made a presentation to the University of Hamburg, Germany, entitled "Wood Science and Forest Products at Virginia Tech." Smith made a presentation titled "Forest Products Marketing Research at Virginia Tech."

Steve Brown, senior program-support technician in the office of Sponsored Programs, adapted Anthony Hope's novel, *The Prisoner of Zenda*, for the musical stage. The play will be produced by Summer Musical Enterprise and will open at Squires Haymarket Theatre. In addition to the script, Brown composed the music, wrote the lyrics, completed the orchestration and will direct the musical.

EMPLOYMENT

CLASSIFIED POSITIONS

The following classified positions are currently available. More details specific application procedures and position-closing dates are available at <http://www.ps.vt.edu>. Available positions are also listed on the Job Line: Office/Clerical: 1-6196; Technical/Research: 1-6160; Service/Trades: 1-6176; Professional and Managerial: 1-4649; Information Technology: 1-2233. Some positions include state benefits. Positions numbers beginning with a "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 unless otherwise stated. An EO/AA employer committed to diversity.

Full Time

Agricultural Technician B, 3166M, Grade 5, Animal and Poultry Sciences.

Computer Network Support Technician Senior, 6510T, Grade 10, Philosophy.

Enrollment Services Coordinator, 1953T, Grade 10, Pamplin College of Business: MBA Program.

Fiscal Technician, 1105T, Grade 6, English.

Food Operations Assistant A/Potwash, 0750H, Grade 1, Residential and Dining Programs/Shultz Dining Center.

Food Operations Assistant A/Server, 0487H, Grade 1, Residential and Dining Programs/Dietrick Dining Hall.

Food Operations Assistant A/Server, 0753H, Grade 1, Residential and Dining Programs/Dietrick Dining Hall.

Food Operations Assistant A/Server, 0986H, Grade 1, Residential and Dining Programs/Dietrick Dining Hall.

Food Operations Assistant B (3rd Baker), 7008H, Grade 2, Residential and Dining Programs/Southgate Bakeshop.

Food Operations Assistant B (3rd Cook), 0409H, Grade 2, Residential and Dining Programs/Dietrick Dining Hall.

Food Operations Assistant B/Checker, 0421H, Grade 2, Residential and Dining Programs/Dietrick Dining Center.

Food Operations Assistant B/Pre-prep Assistant, 2944H, Grade 2, Residential and Dining Programs/Southgate Center.

Food Operations Assistant B/Shopleader-cashier, 0029H, Grade 2, Residential and Dining Programs/Owens Food Court.

Food Operations Assistant B/Shopleader-cashier, 1150H, Grade 2, Residential and Dining Programs/Vet Med Cafe.

Food Operations Manager A (Sales And Marketing Manager), 0478H, Grade 8, Residential and Dining Programs/Personal Touch Catering.

Food Operations Manager A/Sous Chef, 2946H, Grade 8, Residential and Dining Programs/Owens Food Court.

Food Production Worker A (2nd Cook), 0774H, Grade 3, Residential and Dining Programs/Dietrick Dining Center.

Food Production Worker A (2nd Cook), 0775H, Grade 3, Residential and Dining Programs/Owens Dining Center.

Food Production Worker A/Shopleader Supervisor, 0978H, Grade 3, Residential and Dining Programs/West End Market.

Food Production Worker B (1st Cook), 0767H, Grade 5, Residential and Dining Programs/Owens Food Court.

Food Production Worker B (1st Cook), W022849H, Grade 5, Residential and Dining Programs/Personal Touch Catering.

Food Production Worker B (Pastry Chef Apprentice/Supervisor), 7128H, Grade 5, Residential and Dining Programs/Southgate Bake Shop.

Graphic Artist, 6542G, Grade 7, Continuing Education.

Graphic Designer, 2076D, Grade 9, Publications/University Relations.

Grounds Lead Worker, 2334P, Grade 6, Physical Plant/Grounds.

Housekeeping Worker Senior, 0269H, Grade 3, Residential and Dining Programs.

Housekeeping Worker, 1138G, Grade 1, DBHCC.

Housekeeping Worker, 6867C, Grade 1, Physical Plant/Housekeeping Services.

Housekeeping Worker, 0721H, Grade 1, Residential and Dining Programs.

Information Systems Audit Manager, 1735T, Grade 16, Internal Audit.

Laboratory Specialist Advanced, 2604M, Grade 11, College of Veterinary Medicine.

Laboratory Specialist, 7480J, Grade 8, HNFE.

Laboratory Specialist, 3428M, Grade 8, Veterinary Medicine.

Office Services Specialist, 7484J, Grade 5, Industrial and Systems Engineering.

Office Services Specialist, 6653T, Grade 5, Personnel Services.

Oracle DBA, 7433D, Grade 14, Administrative Information Systems.

Pharmacy Supervisor, 6516M, Grade 15, Veterinary Teaching Hospital.

Program Support Technician, 7486G, Grade 6, Center for Organizational and Technological Advancement.

Programmer, IW2000D, Grade 10, Administrative Information Systems.

Programmer/Analyst, 6887D, Grade 12, Administrative Information Systems.

Programmer/Analyst, IW2001D, Grade 12, Administrative Information Systems.

Programmer/Analyst, 2917D, Grade 12, Computing Center.

Public Relations Asst Specialist, 6996C, Grade 8, University Relations/WVTF Public Radio.

Security Guard (Parking Enforcement Off.), 7042T, Grade 2, Parking Services.

Senior Programmer/Analyst, IW2002D, Grade 14, Administrative Information Systems.

Trades Utility Worker, 7476G, Grade 3, DBHCC.

Trades/Utilities Lead Worker, 6994H, Grade 7, Residential and Dining Programs/Facilities.

Part Time

Animal Care Technician A, W022675M, Grade 3, Veterinary Teaching Hospital.

Cadd Technician (Engineering Tech 4), W022841T, Grade 8, Environmental Health & Safety Services.

Computer Operations Technician Senior, W022854T, Grade 8, Mathematics.

Executive Secretary, W022330C, Grade 6, University Development/Smith Mountain Lake 4-H Center.

Fiscal Technician, W022852P, Grade 6, Bursar's Office.

Food Operations Assistant A (Dishwasher), W022679G, Grade 1, Donaldson Brown Hotel and Conference Center.

Food Operations Assistant A (Server), W022531G, Grade 1, Donaldson Brown Hotel and Conference Center.

Food Operations Assistant A, W022314H, Grade 1, Residential and Dining Programs.

Food Operations Assistant B, W022315H, Grade 2, Residential and Dining Programs.

Get Connected Technician, W022615D, Grade 6, Administrative Information Systems.

Housekeeping Lead Worker (Trades Helper), W022081H, Grade 2, Residential and Dining Programs/Culinary Services Maintenance Crew.

Housekeeping Worker, W020574G, Grade 1, DBHCC.

Housekeeping Worker, W020190C, Grade 1, Physical Plant/Housekeeping Services.

Housekeeping Worker, W022490H, Grade 1, Residential and Dining Programs.

Housekeeping Worker, W020214G, Grade 1, Schiffert Health Center.

Laboratory Aide, W020811M, Grade 2, College of Veterinary Medicine.

Laboratory Specialist, W022568T, Grade 8, Chemistry.

Laboratory Specialist, W022855M, Grade 8, Veterinary Teaching Hospital.

Office Services Assistant, W022471T, Grade 4, Pamplin College of Business.

Office Services Assistant, W022459C, Grade 4, Personnel Services.

Office Services Assistant, W022114T, Grade 4, Records Management Services.

Office Services Assistant, W022596H, Grade 4, Residential and Dining Programs/Facilities and Services.

Office Services Assistant, W022851S, Grade 4, University Libraries.

Office Services Assistant, W022850S, Grade 4, University Library.

Office Services Specialist, W022331G, Grade 5, Program Development.

Office Services Specialist, W022170M, Grade 5, Veterinary Teaching Hospital.

Program Support Technician, W022589G, Grade 6, Center for Leadership Development.

Program Support Technician, W022648G, Grade 6, Donaldson Brown Hotel & Conference Center.

Program Support Technician, 7344T, Grade 6, Mathematics.

Radiologic Technologist, W022412M, Grade 7, Veterinary Teaching Hospital.

Security Guard (Dorm Watch & Escort Driver), W020470T, Grade 2, Police.

Storekeeper, W022291M, Grade 4, Veterinary Teaching Hospital.

Wash Bay Attendant (Grounds Worker), W020774T, Grade 2, Motor Pool.

Off Campus

Distance Learning Specialist, 7410D, Grade 12, Office of Distance Education.

Executive Secretary, 2092J, Grade 6, Northern Virginia Center.

Office Services Assistant, 6800S, Grade 4, Albemarle County.

Office Services Assistant, 7233S, Grade 4, Arlington.

Office Services Assistant, 5889S, Grade 4, City of Alexandria.

Office Services Assistant, 6609S, Grade 4, City of Alexandria.

Office Services Assistant, 7464S, Grade 4, Fairfax County.

Office Services Assistant, 6603S, Grade 4, HNFE.

Office Services Assistant, 6614S, Grade 4, Hanover County.

Office Services Assistant, 6808S, Grade 4, James City County.

Office Services Assistant, 6605S, Grade 4, Orange County Extension Office.

Office Services Assistant, 6604S, Grade 4, Prince William County.

NON-INSTRUCTIONAL

Department of Materials Science and Engineering. Research Scientist Lab Manager. Send letter of application, current resume, and names of three references who can be contacted to Sean G. Corcoran,

FACULTY POSITIONS

Search Committee Chair, Department of Materials Science and Engineering, 213 Holden Hall (037).

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development (re-advertisement). Position

#FA594, Arlington County. Submit letter of intent, a complete resume, official undergraduate and graduate transcripts (copies acceptable), and three letters of reference. VCE internal applicants submit letter of application, a copy of most recent faculty report, and three

(See EMPLOYMENT on 7)

Career-related employment increasing

By Catherine Doss

More than 86 percent of Virginia Tech's class of 1997-98 who responded to a recent survey by the Office of Career Services and who reported they were employed said they were working in a career related position. This was a 4.5-percent increase over last year's survey. In addition, 73 percent of the respondents reported engaging in experiential learning opportunities including summer jobs, internships, and cooperative education programs while in college. This was a 4-percent increase over last year's survey.

"Students come to Virginia Tech in hopes of finding a good job upon graduation," said Jim Malone, director of the Career Services office. "There is a strong partnership on campus among our office and the faculty and administration who are committed to assisting students in their career efforts."

The annual post-graduation survey consists of a telephone interview with fall and spring/summer bachelor's degree recipients before their graduation. Those who indicate they do not have definite plans upon graduation receive a follow-up telephone call six months later. Ninety-two percent of the class of 1997-98 responded to the survey.

Seventy-nine percent of those surveyed reported full-time employment, full-time graduate school, or part-time employment or graduate-school status. Compared to 1996-97 graduates, the most recent survey respondents experienced a slight decrease in employment (2.2 percent) and a drop in graduate-school attendance (1.6 percent).

The average salary for 1997-98 bachelor's degree recipient from Virginia Tech was \$31,523, representing a 9.8-percent increase over the previous year.

Graduates from the College of Engineering reported the highest percentage of career-related, full-time employment (97.1 percent). This was followed by graduates from the Pamplin College of Business (93.9 percent) and the College of Architecture and Urban Studies (90.7 percent).

The annual post-graduation survey is used in a variety of ways including assisting students with career planning and placement, admissions recruitment, university accreditation, summer orientation for incoming students and their families, and university development.

Book chronicles adventures on Appalachian Trail

By Sally Harris

When Hunter Irvine decided he really didn't want to be a lawyer, just before graduation from Virginia Tech, he didn't know what to do with the immediate future. Walt Welton, a friend he had met the first week at Virginia Tech, flippantly said he should hike the Appalachian Trail.

"I immediately responded that hiking the Appalachian Trail was indeed what I was going to do," Irvine said. "Once when hiking on the Appalachian Trail as a teenager, I thought hiking the entire trail would be wonderful, and it had become a dormant dream. Walt had been joking and was rather astonished by my reaction."

So on April 8, 1990, Irvine began to backpack the 2,145-mile trail, taking 164 consecutive days (with three days off) to complete the trek from Georgia to Maine.

But another set of circumstances had been put into place while he was still at Virginia Tech. Although he was majoring in political science with a minor in communication studies (a pre-law course of study), he took two creative-writing classes taught by Ed Falco, a professor and author who has published poetry, fiction,

and hypertext books. Falco's teaching method fostered thinking and creativity, Irvine said, and Falco "was extremely encouraging of my writing ability."

The result of the snap decision to make the hike and the effects of Falco's writing encouragement is *One Pair of Boots*, a descriptive story of the numerous encounters of the journey from one end of the trail to the other. Although the book touches on the logistics of such a hike—such as packing up 24 boxes of non-perishable food that his father would mail at certain intervals to post offices along the trail—the book mainly gives descriptions of people met, including the many fascinating through-hikers, the term for people who hike the entire trail in less than a year. "...He experienced a unique fellowship with people, all on their own journey through life," according to the book jacket. "...This book is a special story of a journey on a single trail that crossed the lives of many." The book is "about dreams and perseverance."

"Just a few of my favorite parts of the book are when I hiked down from Angel's Rest and entered the town of Pearisburg, an incident I had

bear-cub watching, meeting a man who had served in Vietnam, and having lunch with a man who had come to this country from Sicily in his youth," Irvine said.

The book includes people Irvine met on the trail from Virginia Tech. "Within the first week, I camped with a group that included a woman who had graduated from Virginia Tech in horticulture studies two years before," he said. "Later I had lunch with two sisters who were out for a one-week hike on the Appalachian Trail, one of whom was a chemical-engineering major at Virginia Tech."

Irvine, who is a youth minister in Colorado, dedicated the book to Falco "for his encouragement of my writing." Irvine wrote Falco that he had worked as a paralegal in Washington, D.C., "'digesting' depositions, which entailed writing a concise synopsis of legal testimony." He also has written articles for church newsletters.

The publisher of *One Pair of Boots* is Golden Stone Press in Lake City, Col. For more information on the Internet, go to <http://members.aol.com/boots1pair>.

Appal Corps projects benefit town of Newport

By Sally Harris

Last semester, Perry Martin and fellow Appal Corps volunteers expended a lot of elbow grease in the Town of Newport.

Appal Corps is a group of students, mainly from Virginia Tech's Appalachian Studies program, that does volunteer work in the Appalachian town of Newport. "Our projects last semester were very physically oriented," Martin said. "Elbow grease."

The group, since 1997, has done a variety of projects, from building a Village Green and a ball field to sprucing up one of the town's three covered bridges to visiting and assisting the community's elderly and raising money for the community recreation center. Last semester, the students, along with local citizens who have become involved, worked on seven projects as Martin darted around town to supervise them all.

Newport is the lucky recipient of the students' efforts because Martin kept seeing potential for improvements as he drove the

roads of Giles County. A native of Newport who has decided not to leave, he knows how ideas for the town's needs pop up in church and civic groups or between two neighbors talking. He decided to be part of the solutions to the problems.

Martin, who received a bachelor's degree in communication studies and plans to pursue a graduate degree in public administration, began working with the Newport projects as part of his Service-Learning work at Virginia Tech. He had done an independent study that involved researching his hometown with Elizabeth Fine, director of Appalachian Studies at Prices Fork Elementary School.

In 1997, he began efforts to integrate further Appalachian Studies and Service Learning by forming a community partnership between the Appalachian Studies class and the community of Newport. Two years later, the group has expanded its projects and taken on the name of Appal Corps after a brain-storming session,

Martin said. As part of his work with Service Learning and Appalachian Studies, he has been able to arrange for nearly 200 students to take part in the various projects.

Last semester, the students cleaned up around the old Newport School, which is now a recreation center. They also helped with a benefit auction that raised \$3,100 for the center. The project brought together businesses, which donated items, and students and community residents, who got the items to the auction site. Some students also helped the day of the auction.

In another project, the students visited 22 older residents to provide them company and assistance. "We gave them flowers and did work for them," Martin said. They also built a bird feeder for a woman who can't go outside. Some of the students still go visit the elders, Martin said.

According to Donna Long, a Newport resident who works in Virginia Tech's horticulture department and has helped with three of the Newport projects, the students' work has been "wonderful for our community." Long said the students, along with residents, have built one ball field and improved an existing one. "They picked up rocks, helped do the backstop, raked, and shoveled" on the new field, Long said.

In Pearisburg, students worked to brighten up a senior center with flower beds. They were "adopted" by the seniors, Martin said.

One of the most important projects has been work on the Clover Hollow covered bridge, a landmark. Of eight covered bridges left in Virginia, three are in Giles County, Martin said. The bridge once was the only access residents of Clover Hollow had to the outside world.

The students have cleared away trees from around the bridge, which still needs repairs and landscaping, which Martin hopes the group and community volunteers will complete by next spring. Gift bricks sold to community members and friends will replace the asphalt leading to the bridge. Bricks engraved with donors' names cost \$25, which will help with the bridge's upkeep. On June 19, Martin held an open house at the bridge.

Martin hopes to get other colleges and universities in Appalachian areas involved in Appal Corps and apply for a grant for regional Appalachian-community-oriented projects and programs.

EMPLOYMENT

Continued from 6

letters of reference. Review begins August 23 and continues until position filled. Send to John Dooley, Virginia Cooperative Extension, 122 Hutcheson Hall (0437). Inquiries: 1-7619; TDD user: 1-800-828-1120; fax: 1-5545; e-mail: csowers@vt.edu.

Virginia Cooperative Extension. Extension Agent, Agriculture and Natural Resources (re-advertisement). Position #111090, Animal Science, Albemarle County. Submit letter of intent, complete resume, official undergraduate and graduate transcripts (copies acceptable), and three letters of reference. VCE internal applicants submit letter of application, copy of the most recent faculty report, and three letters of reference. Review begins August 23 and continues until position filled. Send to Steve Umberger, Virginia Cooperative Extension, 122 Hutcheson Hall (0437). Inquiries: 1-7619; TDD user: 1-800-828-1120; fax: 1-5545; e-mail: csowers@vt.edu.

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development. Position #111123, King George County.

Submit letter of intent, complete resume, official undergraduate and graduate transcripts (copies acceptable), and three letters of reference. VCE internal applicants submit letter of application, copy of the most recent faculty report, and three letters of reference. Review begins August 30 and continues until position filled. Send to John Dooley, Virginia Cooperative Extension, 122 Hutcheson Hall (0437). Inquiries: 1-7619; TDD user 1-800-828-1120; fax: 1-5545; e-mail: csowers@vt.edu.

Virginia Cooperative Extension. Extension Agent, Agriculture and Natural Resources (re-advertisement). Position #FA516, Crop and Soil Science, Greensville County. Submit letter of intent, a complete resume, official undergraduate and graduate transcripts (copies acceptable), and three letters of reference. Internal applicants submit letter of application, copy of the most recent faculty report, and three letters of reference. Review begins August 30 and continues until position filled. Send to Steve Umberger, Virginia Cooperative Extension, 122 Hutcheson Hall (0437). In-

quiries: 1-7619; TDD user 1-800-828-1120; fax: 1-5545; e-mail: csowers@vt.edu.

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development (re-advertisement). Position #FA768, Floyd County. Submit letter of intent, complete resume, official undergraduate and graduate transcripts (copies acceptable), and three letters of reference. VCE internal applicants submit letter of application, copy of most recent faculty report, and three letters of reference. Review begins August 30 and continues until position filled. Send to John Dooley, Virginia Cooperative Extension, 122 Hutcheson Hall (0437). Inquiries: 1-7619; TDD user 1-800-828-1120; fax: 1-5545; e-mail: csowers@vt.edu.

Office of the Virginia Tech Athletic Fund. Development Manager. Candidates should send cover letter, resume, and names of five references to Lucius M. Merritt Jr., Director of Development for Intercollegiate Athletics, P.O. Box 10307, Blacksburg, VA 24062. Review begins immediately and continues until position filled.

Vet Med hires residents, interns

By Jeffrey S. Douglas

Fifteen new veterinarians have been hired as residents and interns in the Virginia-Maryland Regional College of Veterinary Medicine.

Internships and residencies are advanced clinical/educational programs pursued by DVM's seeking advanced training and eventual board certification by organizations like the American College of Veterinary Surgeons, the American College of Veterinary Internal Medicine, the American College of Veterinary Radiology, or the American College of Veterinary Ophthalmology.

There are eight new residents and interns in the Department of Large Animal Clinical Sciences.

Katja Dusterdieck is a resident in large-animal surgery. She attended the *Universität Bern* in Switzerland and completed veterinary school at the *Tierärztliche Hochschule* in Hannover, Germany. She completed a year as a visiting research scholar at Michigan State University and has just completed an internship in large-animal medicine and surgery at the VMRCVM.

Jose Ramos is also a resident in large-animal surgery. Ramos received his BS from Texas A&M University and his DVM from Tuskegee University. He recently completed an internship in large-animal medicine and surgery at the VMRCVM.

Lucia Vitis received her DVM from the *University Austral de Chile* where she then became a member of the instructional faculty. She was an academic visitor at the VMRCVM in 1996-97 and has joined as a resident in large-animal surgery.

Casey Gonda has joined the VMRCVM as a resident in large-animal medicine. Gonda attended Bowling Green State University and Findlay College before receiving her DVM from Ohio State University. She was the sole proprietor and clinician at an equine practice in Ohio for the past four years.

Milan Hess has joined the VMRCVM as a resident in theriogenology, a specialty that focuses on animal reproduction. Hess received her BS and DVM from Colorado State University. She also completed a small-animal internship at Alameda East Veterinary Hospital.

Eric Willingham, a Virginia Tech alumnus, is a resident in clinical nutrition. He received his MS and DVM from the University of Georgia and was formerly a breeder manager for Dekalb Poultry Research, Inc. Willingham also

completed an externship at the Brookover Ranch Feedyards in Kansas.

Elizabeth Kline has joined the VMRCVM as an intern in large-animal medicine and production-management medicine. Kline completed her BS and received her DVM from the University of Tennessee.

Sophia Ramlal received her BS with honors from Cornell University and completed her DVM at Tuskegee University. Ramlal has joined the VMRCVM as an intern in large-animal medicine and production-management medicine.

Seven new veterinarians were also hired as residents and interns in the Department of Small Animal Clinical Sciences at the VMRCVM.

Nivia Martínez, who received her DVM at Ohio State University, has joined the VMRCVM as a resident in small-animal medicine. Martínez also completed an internship at Purdue University.

Keven Gulikers has also joined the VMRCVM as a resident in small-animal medicine. Gulikers received his DVM at Oklahoma State University and completed an internship at the Coral Springs Animal Hospital.

Trey Calfee received his DVM at the University of Tennessee and completed an internship at the Angell Memorial Animal Hospital. Calfee has joined the VMRCVM as a resident in small-animal surgery.

Matthew Corse, who received his DVM at the University of California at Davis; Miryam Hofstetter, who received her DVM at the University of Florida; Scott Munn, who received his DVM from North Carolina State University; and Kristine Stearns, who received her DVM from the University of Tennessee, have joined the VMRCVM as interns in the Department of Small Animal Clinical Sciences.

VMRCVM leaders meet in Chile

By Jeffrey S. Douglas

Academic leaders from the Virginia-Maryland Regional College of Veterinary Medicine recently met with representatives from Latin American veterinary colleges in Valdivia, Chile in an effort to help them standardize veterinary education and practice in Mexico, Central and South America.

VMRCVM Dean Peter Eyre and Gerhard Schurig, a professor in the college's Department of Biomedical Sciences and Pathobiology, spent a week in South America discussing ways in which academic curricula, professional licensing and school accreditation can be improved.

"They are trying to develop more uniform methods of veterinary education and they are trying to standardize the quality of their graduates," said Schurig, who also serves as the director of the college's World Health Organization Collaborating Center for Veterinary Education in Management and Public Health.

The Pan American Federation of Veterinary Colleges, an organization of veterinary schools from throughout South America, Central America and Mexico invited the pair to South America. The VMRCVM is the only college of veterinary medicine in the United States which is a member of that federation.

In the United States, veterinary colleges are

accredited by the American Veterinary Medical Association's Council on Education. At the present time, no common standards exist for accrediting veterinary colleges within the Pan American Federation, according to Schurig, although Mexico is moving in that direction.

In the United States, all veterinarians must pass a national professional-licensing examination and then pass additional examinations in the states in which they wish to practice. No common licensing system presently exists within countries in the Pan American Federation of Veterinary Colleges, Schurig said.

Finally the group discussed the need for all of the veterinary colleges to adopt common aspects of an academic curriculum to foster consistent standards.

Symposium leaders made important progress in agreeing that efforts should be undertaken to address the improvements, Schurig said.

The college's World Health Organization Collaborating Center for Veterinary Management and Public Health seeks to improve animal and human health throughout the Americas by promoting public-health and veterinary education throughout the Americas and Caribbean Basin, Schurig said.

OPPORTUNITIES

Continued from 1

need to pursue advanced degrees.

"The interns are part of a mechanism to bring about change—to get minority students into the mainstream of scientific and technological society," he said. "This program is flourishing because the faculty members here take a very active interest, serving as advisers to these talented young people."

The intern program is one of three legs of the Minority Academic Opportunities Program. The other parts of the program consist of under-

graduate scholars, who initially enroll in Virginia Tech, and graduate scholars, who are presently in the pipeline for advanced degrees. The goal of the program is to prepare minority students for graduate school and for science careers in academia, business, government, and industry.

The colleges within Virginia Tech participating in the program are the colleges of Agriculture and Life Sciences, Architecture and Urban Studies, Arts and Sciences, Natural Resources, Human Resources and Education, and the Virginia-Maryland Regional College of Veterinary Medicine.

PAMPLIN

Continued from 1

from scratch, is typically bought "off the shelf," Sen said. This saves the company time. However, the different systems do not always communicate with each other and need to be integrated, using other software and hardware, so that information can be exchanged across functions and provided to senior management in a coherent and efficient manner.

The web's popularity has added another dimension to systems integration, he said. Organizations are increasingly using web browsers (such as Netscape Navigator or Microsoft Internet Explorer) as "clients" for their remote servers in organization-wide Intranets. (In client-server computing, a server stores and organizes information; clients are other applica-

tions that are used to access the server to retrieve or send information to the server.)

Virginia Tech, for example, switched to a web-based leave-reporting system in January. Employees who used to report their monthly work and leave hours using paper forms now use web browsers on their individual computers to retrieve and update their records and to send the information to a server that maintains the database of employee leave hours. "It's a major efficiency gain for us and reduces the errors significantly," said Rosie Higdon, manager of employee administration and human-resources information systems.

If an organization has a large amount of information that it needs to distribute through a wide geographic area, it can do this very efficiently by allowing information on its server to be

accessed through a web-based client. "With a web browser or client, you can quickly access a great deal of information on a server from anywhere in the world," Sen said. "Web clients are becoming the de-facto standard in client-server computing."

As a result, integrating web technology to a company's information systems, he said, "is critical for its survival in today's highly competitive environment." Different organizations however have chosen different software and hardware architectures for integrating the web to their information systems. "Currently no standards exist for web-systems integration, he said, and there is little or no information on best practices in systems integration in general."

Virginia Tech's Systems Integration Center, he said, will undertake research and development and collect and publicize best practices in web and other systems integration. Besides Internet-systems integration and web-based business intelligence, the center will do research on systems-integration issues related to knowledge management, data warehousing, data mining, enterprise data management, and the integration of business intelligence with enterprise resource planning systems.

Its researchers will undertake projects that will include prototyping new concepts, benchmarking, system-effectiveness studies, and evaluation of new software tools and technologies.

"Our activities will directly benefit businesses, government organizations, and IT firms in Virginia," said Ghandforoush, "by helping to build knowledge management and web-systems-integration expertise in their organizations."

PATENT

Continued from 1

ferent, making the enzyme potentially inappropriate for use in humans. Researchers at the Fralin Biotechnology Center at Virginia Tech are assessing the sugar composition of human glycoproteins made in plants and developing novel strategies to engineer tobacco to synthesized "human-compatible" glycans.

For more about Cramer and her research, see www.biotech.vt.edu/Teaching/Faculty/Cramer.html.

EVALUATION

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uled Wednesday, Sept. 8 from 1-5 p.m., or Thursday, Sept. 9 from 8 a.m.-noon at the Donaldson Brown Hotel and Conference Center. Interested supervisors should register for one session with Personnel Services by contacting Becky Moore at 1-9331 or e-mail RMOORE@vt.edu.

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