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Stallings named Virginia Cooperative Extension associate director

By Charlie Stott

Charles Stallings, dairy science professor at Virginia Tech, has been selected as associate director of Virginia Cooperative Extension (VCE) for agriculture and natural-resource programs, according to VCE Director Steve Umberger.

Stallings has been a member of Virginia Tech's faculty since 1979 and for the past 12 years has been project leader for Extension's dairy-science programs. He also has been director of the Virginia Tech Forage Lab since 1991 and served as interim department head of the dairy-science department from 2000-2001.

"Charlie Stallings brings years of leadership and experience to this position," Umberger said. "We are fortunate to have someone with his knowledge of and dedication to Extension's educational programs and to the agriculture and natural-resource industries that we serve.

"He has been an outstanding performer in his department and the university and has provided leadership for many state, regional, national and international efforts," Umberger added. "We look forward to his strong leadership for our agriculture and natural-resource programs."

Stallings, who will assume his new position September 1, has been involved in Extension's dairy programs since 1981 and has been providing leadership for those programs for the past 12 years.

He said that one of his goals in his new position will be "to help build our system back after the budget cuts we have endured in recent years. The agents in the field and our specialists are at the heart of the system that serves the agriculture and natural-resource industries.

"My role will be to bring in good new people, as we can, and to help our existing faculty members, here and in the field, to develop and deliver strong programs."

Stallings' own programs have been characterized by the use of emerging technologies, such as on-farm computers for ration formulation, computer feeding programs, usable software for dairy producers and consultants and an emphasis on forage quality.

He also initiated a Feed and Nutritional Management Cow College short course that has attracted participants from five states. In 2001, the course served as a satellite downlink site for release of new National Research Council's Nutrient Requirements of Dairy Cattle.

Stallings has produced 28 Extension publications, 18 refereed journal articles, more than 165 articles in popular newsletters and trade magazines, more than 60 papers and presentations at conferences and conventions and 20 articles in conference proceedings.

He was awarded the Alumni Extension Excellence Award in 2002 and has been a member of the Extension Team Award winner in 1992 and 2001. Stallings has made more than 30 international trips to 16 countries to present information on dairy-cattle nutrition.

He received his bachelor's degree from Eastern Kentucky University and his master's and Ph.D. from Michigan State University.

Vet Med researcher gets $1-million Army vaccine grant

By Jeffrey S. Douglas

A bacteriologist in the Virginia-Maryland Regional College of Veterinary Medicine has been awarded a $1.06-million grant from the U.S. Army to develop a vaccine for tularemia.

Thomas J. Inzana, the Tyler J. and Francis F. Young professor of bacteriology, along with his research team in the college's Center for Molecular Medicine and Infectious Diseases have begun a four-year program designed to develop a vaccine and diagnostic test for tularemia, which is commonly known as "rabbit fever." The etiologic agent of tularemia is *Francisella tularensis*, which the Centers For Disease Control (CDC) in Atlanta classifies as a Category A bioterrorism agent.

Tularemia is an infection characterized by ulcers, swollen glands, fever, and flu-like symptoms. The organism can spread through the blood and lymphatic systems to infect the respiratory tract, where it can cause more serious health problems. Pneumonic tularemia may have about a 30-percent mortality rate, according to Inzana.

While not uncommon in wildlife throughout the United States, Inzana says, it is a relatively rare disease in people. Only about 100-200 cases of tularemia in humans are reported every year, Inzana said. The bacteria are transmitted to humans and animals by ticks and biting flies, or can be ingested by wildlife from drinking water. Humans are also infected through minor cuts or abrasions in the hands by handling infected animals.

The military is concerned about *F. tularensis* because of its heartiness and its virulence. Whereas about 10,000 *Bacillus anthracis* (anthrax) spores are required to

(See VET MED on 4)

Extension Director's Statement on Fighting Incident at 4-H Camp

By Steven H. Umberger,
Virginia Cooperative Extension director

Virginia Cooperative Extension regrets the fighting incident that has now been confirmed to have taken place at the Smith Mountain Lake 4-H Educational Center during the week of June 30 to July 4. We want to thank Franklin County Sheriff Quint Overton and his staff for their professional, prompt and thorough investigation of this incident.

For more than 100 years, 4-H has been helping young people develop into good citizens. Consequently, we do not condone or tolerate the poor judgment and the inexcusable behavior on the part of those individuals who were involved in this deplorable event.

Once informed of the fighting, we immediately initiated several steps to enhance the care and safety of 4-H campers. We also launched an internal review of camp security and camper supervision. In addition, we have looked for ways that current policies and guidelines can be further refined to prevent this from happening again.

Our six 4-H centers are all accredited by the American Camping Association, a national organization which provides rigorous safety standards that govern every aspect of camp staffing, programming and operations. Virginia has one of the largest 4-H camping programs in the country with more than 26,000 participants

(See EXTENSION on 2)

The new Park, Walk, and Talk community-policing program created by the Virginia Tech Police Department is putting more officers on the campus. (*R. Griffiths*)

Police Department implements 'Park, Walk, and Talk Program'

By Ada Hatzios

Expect to see a lot more police officers on campus—but for a good reason. A new program created by the Virginia Tech Police Department is putting more officers patrolling the campus and visiting university faculty and staff members and students in the buildings. The "Park, Walk, and Talk Program" is a community-policing program founded by Captain Robert Baudo.

"The purpose of the program is really to interact with the community so they can become comfortable with us and we can understand their concerns," Baudo said.

Baudo said people usually only interact with the police when something bad happens, but that their job involves more than the criminal aspect.

"We want to let people know that we're there to enforce laws and regulations of the state and the university, but we're also there to provide a service," he said.

The "Park, Walk and Talk Program" is an addition to the police department's "Adopt-A-Hall Program," where police officers are assigned to residence halls in an attempt to increase communications and build trust between students and the Police Department.

(See POLICE on 4)

University announces record licensing royalties

The Virginia Tech Licensing and Trademark Department has announced that it had a record year for the sales of Virginia Tech products.

For the fiscal year 2002-03, a total of $833,902.00 in royalties was collected from almost 500 licensees manufacturing Virginia Tech products. The previous record of $758,255.00 was paid in the fiscal year 2000-01. Over the past five years licensing revenue has gone from $251,178.00 to $833,902.00.

Virginia Tech students receive financial aid benefit, as the majority of the licensing revenue goes to the university general-scholarship fund.

These licensing revenues represent an 8-

(See UNIVERSITY on 2)

ACTIVITIES

EVENTS

Friday, 25
Friday Night Out Concert Series, 6 p.m., Henderson lawn: Summer Musical Enterprises, excerpts of *The King and I.*

Monday, 28
Library System Demonstrations, 8:30 a.m., Torgersen Hall Museum: Dynix.

Wednesday, 30
"With Good Reason," 7:30 p.m., WVTF.

Thursday, 31
Library System Demonstrations, 8:30 a.m., Torgersen Hall Museum: VTLS.

Friday, 1
Pay Date for Faculty and Staff Members.

Monday, 4
Virginia Tech Police Department Assessment Public-Information Session, 6:30 p.m., DBHCC.

Wednesday, 6
"With Good Reason," 7:30 p.m., WVTF.

Thursday, 7
Classes End.

Friday, 8
Exams Begin.

McNair Scholars Program Research Symposium set

The Virginia Tech McNair Scholars Program will hold it's Fourth Annual Summer Research Symposium on Saturday, July 26 at 8:30 a.m. in Donaldson Brown Hotel and Conference Center rooms D and E.

The symposium showcases the work of 13 undergraduates who have been engaged in a 10-week research experience with Virginia Tech faculty members as a part of their participation in the McNair Scholars Program.

Students will present their research orally to the campus community and will represent a variety of disciplines including psychology, architecture, animal and poultry science, forestry, human development, math, plant pathology, physical and weed sciences, and urban affairs and planning.

Contact Sonja Crockett (*scrocket@vt.edu*; 1-4133) for more information.

Weight-loss study needs female participants

Researchers in the Department of Human Nutrition Foods and Exercise are looking for women who are 32-45 years of age, interested in losing weight and are willing to follow a 12-week weight-loss intervention.

The benefits for the participant include participating in a supervised weight-loss program, free bone scan (measures bone mineral density and determines osteoporosis risk); analysis of bone turnover rate, measurement of body composition, cholesterol and lipid profile, and measurement of oxidative stress markers. The study begins in late August. Researchers will be screening for eligible participants for the next four weeks.

Differences between the Atkins diet plan and traditional diet recommended by the American Heart Association will also be assessed in this study.

For more information, contact Mary Dean Coleman by either e-mail (preferred) at *macolema@vt.edu*, or call 1-7387.

UNIVERSITY

Continued from 1

percent royalty that is paid on the wholesale cost of the goods by the manufacturers. It is estimated that over $20 million worth of Hokie products was sold at retail last year.

"We are really excited with these figures and glad that we can help some students pay for their college education," said Locke White, director of licensing. "With the programs we have in the works and another successful football season, we expect to go over a million dollars in licensing revenue."

VTPD scheduled for on-site assessment meeting

The Virginia Tech Police Department is scheduled for an on-site assessment as part of a program to achieve accreditation by verifying it meets professional standards.

Administered by the Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA), the accreditation program requires agencies to comply with state-of-the-art standards in four basic areas: policy and procedures, administration, operations, and support services.

As part of the on-site assessment, agency employees and members of the community are invited to offer comments at a public-information session Monday, Aug. 4 at 6:30 p.m. The session will be conducted at the Donaldson Brown Hotel and Convention Center.

Agency employees and the public are also invited to offer comments by calling 1-9686 on August 4 between the hours of 1 and 5 p.m. Comments will be taken by the assessment team.

Telephone comments as well as appearances at the public-information session are limited to 10 minutes and must address the agency's ability to comply with CALEA's standards. A copy of the standards is available at the Virginia Tech Police Department from Lieutenant Debbi Morgan or Denise Linkenhoker at 1-6411.

Those who wish to submit written comments about the Virginia Tech Police Department's ability to comply with the standards for accreditation should send them to the Commission on Accreditation for Law Enforcement, Inc. (CALEA), 10302 Eaton Place, Ste. 100, Fairfax, Virginia, 22030-2215.

Troy named new VMRCVM department head

By Jeffrey S. Douglas

Gregory C. Troy has been named head of the Virginia-Maryland Regional College of Veterinary Medicine's Department of Small Animal Clinical Sciences (DSACS).

With 25 tenure-track professors, four clinical instructors and 18 residents and interns, DSACS is home to the veterinary specialists who provide clinical care for dogs, cats and other pets in the college's Veterinary Teaching Hospital (VTH).

Troy, a professor and internal medicine specialist, was recruited to direct the college's Veterinary Teaching Hospital in 1987 and served in that capacity until 1993. He also served as acting hospital director from 1996-97 and as small animal section chief in the VTH from 1996-2001. He has served as acting head of DSACS since March 2003.

"I am delighted to welcome Dr. Troy back to the college's administrative team at this time," VMRCVM Dean Peter Eyre said. "I know that his outstanding professional record and his exceptional personal characteristics will help to move the department and the college forward at this time of challenge and opportunity."

Troy earned his DVM, with honors, from Auburn University, and an M.S. degree in internal medicine from Texas A&M University. He served on the faculty at Texas A&M from 1979 until 1987.

Troy is a diplomate of the American College of Veterinary Internal Medicine (ACVIM). He has successfully mentored more than 70 interns and residents. He is the author of 50 major refereed journal articles, nine book chapters and numerous abstracts, conference papers, and continuing-education documents.

EXTENSION

Continued from 1

attending camps annually. This is the first time since 4-H camping began in 1917 that an incident such as this has occurred.

During the week the fighting occurred, there were 22 adult volunteers and Extension staff members and 50 teen counselor volunteers from Bedford and Halifax counties as well as permanent summer camp staff members who were on the grounds at all times. Extension agents, who accompanied the campers, and a paid night watchman patrolled the lodges and grounds at different times during the late evening and nights. We anticipate that the result of this investigation will provide insight into how this fighting went undetected given the checks and balances and the multiple layers of supervision that are built into the current system.

To date, Virginia Cooperative Extension has taken the following actions:

The teen and adult counselors who were implicated in the fighting were immediately suspended as 4-H volunteers and barred from all 4-H activities until completion of the investigation.

As of July 15, funds were earmarked and allocated to all six 4-H centers to be used to enhance camp security.

A task force of individuals both internal and external to Virginia Cooperative Extension is being finalized and will meet in early August to review this incident as well as all camping policies and procedures affecting camp security and camper safety.

The following instructions were communicated to all 4-H camps to be used for the remainder of the summer camping program:

We reaffirmed that a paid staff person (Extension agent or program assistant) or an adult who has completed the Master 4-H Camp Director Training Program, will be on site during the entire camping session.

The paid staff person, or master 4-H camp director, will make nightly checks on all lodges during the camping session with a heightened level of vigilance between the hours of 10 p.m. to midnight, and at other times as deemed appropriate.

All camp counselors, camp programming staff members, night security, and volunteers are to be at a heightened level of awareness regarding any complaints of misconduct and immediately report any incidents to the appropriate Extension agent.

All 4-H center staff members hired specifically for camp security are to report any and all unusual activities or disturbances occurring in a lodge to an Extension agent, 4-H program assistant, or master 4-H volunteer of the same gender as the respective lodge to immediately deal with any disruptive behavior. Historically, the camp security staff's major responsibility has been to prevent unauthorized persons from entering camp property at night and to keep young people in their lodges after lights out. They have now been directed to take a proactive role in immediately reporting and acting on any questionable behavior.

This incident has certainly raised the awareness of all individuals responsible for 4-H camper supervision on the importance of closely adhering to all policies and guidelines set forth to ensure the safety of all campers. Based on the findings and recommendations of the task force that will meet in early August, further refinements to our 4-H camping policies will be implemented if needed.

Virginia's 4-H camping program has been in existence since 1917. Please rest assured that Virginia Cooperative Extension will take all steps necessary to provide a safe, wholesome, educational, and enjoyable environment for all future 4-H camp participants.

CAMPUS UPDATE

On-line class redesigned to make use of interactive teaching tools

To meet a growing need for current health-care education, and to help further the university's strategic plan "to increase the variety of pedagogical experiences for Virginia Tech students" (Undergraduate Education 2.3), the on-line class, "Women's Reproductive Health Issues and Contraceptive Choices," has been redesigned to make use of interactive teaching-and-learning tools and methodology in multimedia presentation.

The class resulted from collaboration between Schiffert Health Center (SHC) and the Institute for Distance and Distributed Learning (IDDL). To view, visit *www.iddl.vt.edu/courses/DSHC001/.*

Originally, a class on contraceptive issues offered two-to-three times per week was taught by a staff member in a traditional classroom. Students wanted more convenience and accessibility, so a slide-show was placed on line in 2000. The number of students served more than doubled in the first year alone.

SHC Health Education Director Beth Thompson anticipates another increase in numbers now that the new multimedia, highly interactive class has been activated. "This is a cutting-edge program unique to Virginia Tech. It will serve as a model to other institutions of higher education," Thompson said.

The course's modular structure facilitates a learning process in which one unit building upon the next. Self assessments provide students with the opportunity to evaluate knowledge gained throughout the course. According to the site's privacy statement, all information remains completely confidential and not tied to any Virginia Tech student records.

Links provided on the course web site include the Virginia Tech's Women's Center, as well as health information and organization sites offering information on general health topics. SHC also provides a library of on-line publications with topics that cover everything from the common cold to HIV testing.

Student feedback gathered through a pilot testing phase of the project helped to pinpoint improvements that will ensure high satisfaction with the content and delivery of the new class.

Reynolds Homestead joins Outreach, International Affairs as part of Southside initiative

By Susan B. Felker

A new reporting structure for the Reynolds Homestead, Virginia Tech's continuing-education center in Patrick County, will link the historic facility to the university's programs in the Southside and southern Piedmont areas of Virginia, providing additional opportunities for the university to serve the region.

Effective July 1, the director of the homestead reports to Timothy W. Franklin, director of university outreach programs for Southside. The change, which places the homestead within the university's Outreach and International Affairs, is part of a strategic initiative to consolidate administration of the university's programs that serve the public.

"Centered around the historic 1843 birthplace of tobacco manufacturer R.J. Reynolds, the Virginia Tech Reynolds Homestead center offers a rich variety of cultural programs, continuing-education courses, and the Forest Resource Research Facility. These programs complement the science and technology programs that will be available through the Institute for Advanced Learning and Research (IALR) in Danville, already part of Outreach and International Affairs," University Provost and Vice President for Academic Affairs Mark McNamee said in announcing the reassignment.

By adding the Reynolds Homestead to Tech's Southside outreach initiative, the university will strengthen its presence in the region stretching from Southside into the Blue Ridge Mountains and serve these communities more effectively.

"The Reynolds Homestead is a wonderful asset to Virginia Tech and to the region. The cultural programs offered there are important, and the facility is a great resource for Patrick County as well as adjacent communities," Franklin said.

"Integrating the Virginia Tech Southside regional effort through this administrative realignment will enable us to build upon existing excellent programs to enhance arts and humanities offerings through regional collaboration. As these relationships develop, Reynolds Homestead is the logical focal point for leadership and coordination," Franklin said.

The forestry program at the Reynolds Homestead, which will remain a part of the Virginia Agricultural Experiment Station (VAES) program, ties into the high-value crops initiative and biotechnology research effort that will soon begin in Danville. The Virginia Tech Agricultural Research and Extension Centers throughout the state are a part of VAES.

The Reynolds Homestead compound,

(See HOMESTEAD on 4)

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE INIVERSITY

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Spectrum is a non-profit publication of the Office of University Relations: Lawrence G. Hincker, associate vice president for University Relations; Jean Elliott, director of news and information.

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Letters to the editor and questions for "Ask *Spectrum*" should be addressed to the editor, 102 Media Building, Virginia Tech, Blacksburg, VA 24061.

Electronic Spectrum: *http://www.spectrum.vt.edu*

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

First Baker, 000996H, PB2, Student Programs.
Administrative Assistant, 006326S, PB3, UAP.
Administrative Assistant, 002390J, PB3, Human Development.
Assistant Manager Senior, 000514H, PB3, Student Programs.
Budget Analyst Senior, 002075S, PB5, BFP.
Capital Budget Manager, 007995S, PB5, BFP.
Computer Operations Technician Senior, 001054Y, PB3, Test Scoring.
Computing Support Professional, 006872Y, PB4, UCS.
Customer Service Analyst, 007088F, PB3, University Bursar.
Development Associate, 002226S, PB3, University Development.
Housekeeping Leader Senior, 000102H, PB1, Student Programs.
Housekeeping Worker, P002005C, PB1, Physical Plant.
In-vehicle Experimenter, 008050J, PB4, VTTI.
Laboratory Specialist, 007860C, PB3, CVM.
Licensed Practical Nurse, 000354J, PB3, Schiffert Center.
Medical Technologist, 002651C, PB4, VTH.
Plumber Steamfitter, 001606F, PB3, Physical Plant.
Power Plant Operator Shift Supervisor, 000335F, PB3, Power Plant.
Powerline Worker, 006524F, PB3, Facilities.
Pre-prep Supervisor, 000394H, PB2, Student Programs.
Program Support Technician, 007216B, PB3, CEOAA.
Research Specialist, 008137C, PB3, CSES.
Small Animal ICU Technician, 008095C, PB4, VTH.
Sous Chef, 002946H, PB3, Student Programs.

PART TIME

Academic Captionist/Transcriber, W022898J, PB3, SSD.
Administrative Assistant, W023527K, PB2, VBI.
Animal Care Technician, W020556C, PB2, CVM.
Animal Care Technician A, W022563C, PB1, VTH.
Housekeeping Worker, W023573G, PB1, Physical Plant.
Lab Technician, W023572C, PB3, FST.
Night Auditor/Front Desk Clerk, W023257G, PB2, DBHCC.
Office Services Aide, W023574G, PB1, Risk Management.
Parking Enforcement Officer, 020415S, PB2, Parking Services.
Radiologic Technologist, W022238M, PB3, Schiffert Center.
Switchboard Operator, W020821M, PB2, VTH.

UNIVERSITY ONLY

Administrative Assistant, U002682J, PB3, Center for Gerontology.

OFF CAMPUS

Administrative Assistant/Volunteer Services Assistant, 008155M, PB2, CVM.
Animal Care Assistant, 008147M, PB1, CVM.
Animal Care Technician, 008143M, PB2, CVM.
Assistant Controller, CCCCCC, PB 0, VTF.
Grounds And Maintenance Worker, 008149M, PB2, CVM.
Isolation Nursing Supervisor, 008153M, PB3, CVM.
Laboratory Specialist, 008152M, PB3, CVM.
Nursing Shift Supervisor, 002996M, PB2, EMC.
Operating Room Technician, 008144M, PB2, CVM.
Personnel Assistant, U008154M, PB2, CVM.
Radiologic Technologist, 008141M, PB4, CVM.
Research Specialist, 007449C, PB3, VSREC.
Student Services Assistant, U008151M, PB2, CVM.
Switchboard Supervisor, 008150M, PB2, CVM.
Wildlife Worker, 006643B, PB2, Biology.

FACULTY POSITIONS

INSTRUCTIONAL

Department of Finance, Assistant Professor. Contact: Search Committee (0221).

NON-INSTRUCTIONAL

Office of Undergraduate Academic Affairs, College of Liberal Arts and Human Sciences, Academic and Career Advisor/Recruiter. Contact: Valerie Giddings, (0426).
Virginia Bioinformatics Institute. Metabolics Specialist. Contact: Debi Darnell, (0477).
Virginia Bioinformatics Institute. Molecular/ and Protein Biologist Research Associate. Contact: Debi Darnell, (0477).
Virginia Bioinformatics Institute. Molecular and Protein Biologist Postdoctoral Associate. Contact: Debi Darnell, (0477).
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Department of Psychology, Research Associate. Contact: Robert Stephens, *stephens@vt.edu.*
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VCE. Extension Agent, Agriculture/Natural Resources. Cumberland County. Contact: Steve Umberger, (0437).
VCE. Extension Agent, 4-H Development. Lunenburg County. Contact: Robert Ray Meadows, (0437).
VCE. Extension Agent, Agriculture/Natural Resources Albemarle County. Contact: Steve Umberger, (0437).

IN OTHER NEWS

Researchers lead at aquaculture symposium

By Lynn Davis

If the world wants to continue eating fish, the future pools of supply will need to come from aquacultured products. Virginia Tech continues to be a leader in the development of technologies needed to deliver safe foods cultured in healthy environments.

At the World Aquaculture Society (WAS), meeting held recently in Louisville, Kentucky, Virginia Tech Aquaculture Center and CFAST (Commercial Fish and Shellfish Technologies) staff members organized and moderated special sessions in yellow-perch culture, aquaculture disease and developments in marine flatfish technologies.

Virginia Tech researchers and students—representing the strongest research presence at the world-wide annual conference, gave over 14 scientific presentations. As a result of the university's high profile at the WAS meeting, Alltech Inc., one of the world's fastest-growing animal-feed-additive companies, commissioned Ewen McLean, director of the university's Aquaculture Center, and Steven Craig, head of the center's nutrition group, to assist in developing a special session on aquaculture for the 19th Annual Symposium on Biotechnology in the Feed Industry. "Our research not only has important ramifications to the aquaculture industry but also has significant implications for the development of oral drug carrier systems for other animals and humans," said McLean, who is a fisheries professor in the College of Natural Resources.

"Aquaculture has been the fastest-growing component of any sector of agriculture production for the last quarter century, and its growth shows no sign of slowing," Craig, associate professor at the College of Veterinary Medicine, said. "Aquaculture production has become of increasing importance to the domestic economy as the only means of offsetting an imbalance of trade in seafood products, which presently stands at $5 billion annually."

McLean said, "Virginia is an important player in the national aquaculture scene with total sales of around $25 million in 2002. In addition to being one of the country's most important producers of tilapia, clams, and softshell crabs, the state is the seventh-largest producer of trout. Virginia, which also supplies oysters, scallops, catfish and hybrid striped bass to regional markets, has recently examined the possibility of producing other marine and freshwater species using intensive aquaculture methods."

With increasing concerns over traceability and food security and safety, aquaculture represents the only means of safeguarding our aquatic-based food supply. The Aquaculture Center is currently investigating the fresh-water fish species, yellow perch and tilapia and the marine fish, summer flounder, southern flounder and cobia. There are plans to expand species diversity housed at the center with pompano, Atlantic sturgeon and marine shrimp later this year.

New electronic publication on line in August

Hoki*E-News*, an electronic publication featuring news and features, Achievers and Newsmakers, a university events calendar, links to clips about Virginia Tech in the news, and more will be available on-line August 29.

The electronic publication will be produced by University Relations for faculty and staff members, alumni and friends of Virginia Tech. "Because an electronic publication is not confined to the amount of space available in a newspaper or a publishing date, it offers far more immediacy and flexibility," University Relations News and Information Director Jean Elliott said.

Hoki*E-News* will be updated regularly throughout the week, Elliott said, and will have the ability to use photos, graphics, and video. A campus-wide survey will also be distributed to gather suggestions which will be used to tailor the electronic news service to the needs of the university community.

This fall, *Spectrum* will continue its current bi-weekly publication schedule. In the off-week for *Spectrum* publication, an e-mail will be sent to the campus community to notify them of the updated Hoki*E-News* site.

The change in presentation follows an extensive review of the university's national benchmark institutions as defined by SCHEV and in-state colleges and universities. "Hoki*E-News* is designed to be a greatly expanded source of news and other important information," Elliott said. "We hope that with input from the university community it will become a vital part of our information-delivery system."

Agency recognizes geosciences research

By Susan Trulove

Professor of Geological Sciences Michael Hochella Jr. and his former doctoral student Steven Lower, now a faculty member at the University of Maryland, have received an award for Most Outstanding Research from a University at a Department of Energy Symposium on Geosciences at Argonne National Labs.

The award is given every two or three years, at the meetings of the groups from across the United States which are doing geosciences research funded by the DOE Office of Basic Energy Sciences.

The award recognized work by Lower, Hochella, and the other students and post docs in the Nanogeoscience and Technology Laboratory at Virginia Tech on bacteria-mineral interactions. Discoveries were published in *Science* two years ago. Potential applications, such as measurement and control of various metals in soil and water, are being reported by Hochella's students at such meetings as the American Chemical Society, Geological Society of America, and the American Geophysical Union.

Robert Bodnar, university distinguished professor of geological sciences, told the Mineralogical Society of America when Hochella received the Dana Medal last year, "Mike and his students have become the world leaders in scanning force microscopy studies of mineral-surface geochemistry. (Their) first principle quantum chemical calculations are providing valuable and unexpected insights into fluid-mineral interactions at the molecular scale."

HOMESTEAD

Continued from 3

more than 700 acres just outside the town of Critz, is the birthplace and boyhood home of tobacco manufacturer R.J. Reynolds. A registered state and national landmark, it is open for tours from May through October and at other times by appointment. The conference building is the center for a series of concerts, exhibits, plays, discussions, lectures, and celebrations. The Forest Resources Research Center was created in 1969 to study forest biology including genetics, physiology, and soils. The Reynolds Homestead web site is at *http://www.cis.vt.edu/reynolds_homestead/*. The Forest Resources Center's web site is *http://arecs.vaes.vt.edu/arec.cfm?webname=critz.*

POLICE

Continued from 1

This idea is taken one step further with the "Park, Walk and Talk Program," where patrol officers are assigned to a "zone," a portion of the university campus containing two to three academic or administrative buildings. During their shifts, the officers are assigned to patrolling the campus and at certain times during their patrol hours they will work in their zones. The officers will park their cars, walk around the zone area and go inside the buildings to visit with the people inside. This provides an opportunity for the officers to better understand and get to know the university community, Baudo said. Approximately 24-25 patrol officers participate in the "Park, Walk and Talk" program, he said. The Police Department has also acquired seven new recruits from the academy, who will be working in the "Park, Walk and Talk" program, he said.

The campus is divided into 24 zones, with two or three academic or administrative buildings per zone, Baudo said. The main campus has 18 zones, with the north end divided into odd numbers and the south end divided into even numbers, and the Corporate Research Center, Virginia Tech Airport and barns comprise the other six zones. Each officer will patrol a minimum of two, probably three, zones during his or her shift, he said.

Police work tends to be more reactive rather than proactive, Baudo said, and this program aims to create a more proactive approach to policing. Baudo has 30 years of experience as a police officer, having worked 20 of those years with the New York City Police Department and then retired before moving to Blacksburg. He worked in a community-policing program with the NYPD, but says it is still a fairly new program in police work, having begun in the early mid-1980s.

"Once you get out of the car and move around, you get to know people," Baudo said. "It becomes easier to do our job when we know the community we're sworn to protect and serve."

Baudo said he hopes that having regular contact with police officers will make people feel more comfortable in relaying any concerns or questions they have to the police.

He said he is hopeful that this program will be a positive asset to the department's police work and will be a benefit for the university community.

"To do our jobs right, we need to be out there in the community."

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cause disease, only about 10 *F. tularensis* cells are required to cause disease, according to Inzana. The organism could conceivably be aerosolized and used as a bioterrorism agent at home or abroad; hence, the military interest. A World Health Organization Committee estimated that aerosol dispersal of 50 kilograms of virulent *F. tularensis* over a city of five million people would result in 250,000 inhabitants becoming seriously infected, including 19,000 deaths.

One aspect of *F. tularensis* that makes it dangerous is its ability to resist host defenses, Inzana said. Unlike many bacteria, *F. tularensis* has the ability to survive inside some of the front-line defenders of the body's immune system. As phagocytic cells such as macrophages rush to attack and consume the invading pathogens, *F. tularensis* actually uses the macrophage as a home and multiplies within it.

While scientists do not yet know much about the biology of the organism, they do know that it has a capsule-like substance on its surface. Inzana, who recently developed and patented a vaccine for swine pleuropneumonia by mutating the DNA required for capsule synthesis by *Actinobacillus pleuropneumoniae*, and selecting for a non-capsulated vaccine strain, plans to apply his expertise in bacterial carbohydrate antigens to the new vaccine and diagnostic test development program.

His research team will isolate and characterize both the capsule and the outer membrane proteins that enable the organism to survive inside the macrophage. The key to creating an effective vaccine will be their ability to identify and stimulate the production of proteins that stimulate T-cells of the cellular immune system. It is hoped that antibodies to the capsule will help to clear the bacteria that are not yet in phagocytic cells, and that T cells of the cellular immune system will kill the cells harboring the bacteria.

In another aspect of the project, Inzana is working with Anbo Wang and Kirstie Cooper in the College of Engineering's Center for Photonics Technology on a project that will develop photonic-based bio-sensors to detect the *F. tularensis* capsule or DNA in the field. Ultimately, that research could lead to the development of rapid pathogen sensing biosensors that could detect multiple pathogens on the battlefield.

Inzana is a noted molecular microbiologist who has generated $4 million in extramural funding and been awarded three patents for intellectual properties arising out of research that has led to the development of vaccines for economically important agricultural diseases.

A former director of the Center for Molecular Medicine and Infectious Diseases, Inzana also serves as director of Clinical Microbiology in the Veterinary Teaching Hospital.