VBI researchers receive $3.8 million to study pathogen

By Neyna Call

The US Department of Agriculture (USDA) and the National Science Foundation (NSF) have jointly awarded $2.3 million to Virginia Bioinformatics Institute (VBI) researchers at Virginia Tech.

Combined with $1.5 million from the Department of Energy (DOE) Office of Science, these funds will enable sequencing of the genomes of two species of Phytophthora, a plant pathogen whose name means “plant devourer.” Attacking a vast number of plants including soybean, cacao, potatoes, and forest trees, Phytophthora costs agriculture, forestry and nursery industries hundreds of billions of dollars each year.

Phytophthora species and their relatives, called oomycetes or “water molds,” are fungus-like organisms that are close cousins of fungi that cause such diseases as black mold and diatom algae. The joint award will enable VBI’s Brett Tyler and his collaborators to sequence the genomes of two Phytophthora species. One of the two species to be sequenced, P. sojae, causes over a billion dollars of losses to the world-wide soybean crop. P. sojae was chosen for this project because researchers have been studying its genetics for many years, and because it has a relatively compact genome.

The other species to be sequenced, P. ramorum, is responsible for a disease called Sudden Oak Death Syndrome that is destroying California’s oak ecosystems. It also threatens redwood and Douglas fir forests on the West coast, and red- and pin-oak forests in the East.

Tyler’s research group will provide a genetic map of the P. sojae genome that will be used to assemble the raw DNA sequence data to be produced at the DOE Joint Genome Institute (JGI). The VBI team will then create a web-based bioinformatics-annotation system that will enable Phytophthora experts from around the world to log in and make use of the genome sequence for many years to come.

McNamee Distributes Budget-action Letter

Provost Mark McNamee has distributed a letter to the faculty and academic staff in which he outlines proposed action aimed at creating solutions to the current budget-reduction situation. McNamee, President Charles Steger, and Executive Vice President Minnis Ridenhour will present comprehensive plans for review by the Board of Visitors at its November 11 meeting. For access to the full text of the letter, go to http://www.unirel.vt.edu/budgetnews/ provost8.html.

Depauw Sees Opportunities for Excellence in Graduate Studies

By Julie Kane

The university’s strong vision, its values, and the strategic plan to accomplish its goals interested Karen DePauw while she considered the opening for dean of the Graduate School. From her 11 years of academic administration at land-grant Washington State University in Pullman, she was able to draw many parallels with graduate studies at Virginia Tech.

At WSU, she served as associate dean of the Graduate School from 1999 to 1997, interim vice provost for academic affairs, and afterward, dean of the Graduate School from 1999 to 2002. DePauw had the distinction of being the first dean of the Graduate School after its secession from research. In the last 10 years, she completed program reviews for 70 masters and 42 doctoral degrees. At Virginia Tech, DePauw is dean of the Graduate School and vice provost for graduate studies.

“The roles and responsibilities of graduate deans are evolving,” she said. “The graduate dean has a room with a view and can see the various perspectives of the universities,” she said. “With the collaboration of university faculty, student advisors, graduate students, and the Graduate School staff, I am re-envisioning the role and responsibilities of the Graduate School. The changes we implement will result in greater visibility and viability of graduate programs at Virginia Tech and an increased number of graduations.”

(See DEPAUW on 4)

Springs may indicate future water resources

By Susan Trulove

Throughout the Blue Ridge Mountains of Virginia, Pennsylvania, and North Carolina are springs that bubble and trickle a few gallons per minute. Where does the water come from? Is it susceptible to groundwater pollution? Can it sustain a home, a farm pond, or a community?

In January 2000, Geological Sciences Professor Thomas Barbery challenged new master’s degree candidate Miles Gentry with these questions. There is equipment for determining the source of springs that pump several millions of gallons per day—such as Crystal Springs, which is one source of water for the City of Roanoke. But there was no such equipment for low-volume springs—until Gentry invented it.

The equipment plus a rain gauge has been used in the field for 18 months, measuring spring output at sites in Grayson County and Floyd County. Gentry will present some of his first findings at the Geological Society of America’s 114th annual meeting in Denver October 27 through 30.

“While it rains, if we see a giant increase in flow, it means that the spring’s source is connected to the surface, such as through a fracture or fault,” Gentry said. At this Floyd County site, the equipment readout shows a shallow then a steep line, indicating two sources of water.

(See SPRINGS on 3)

Roundtable tackles deadlock on biotech food

By Stewart MacInnis

Academics, diplomats, government officials, food-industry representatives, and others will gather in Alexandria on November 4 for a roundtable to search for ways to overcome U.S.-European deadlocks of foods manufactured with modern biotechnology.

Hosted by Virginia Tech’s Center for Food and Nutrition Policy, the roundtable will examine such issues as consumer attitudes toward food safety, regulation of biotechnology in the United States and in Europe, precedents for breaking deadlocks in food regulation, and strategies for breaking the deadlock over foods made by using modern biotechnology.

The daylong roundtable will be held at the Hilton in Old Town Alexandria beginning at 8 a.m. Information concerning registration is available by calling (703) 535-8230, or through the Internet at www.ceresnet.org/ outreach.cfm.

“Difficult attitudes about foods made by using modern biotechnology and radically different food-safety mechanisms have brought Europeans and Americans to loggerheads,” said Maureen Storey, interim director of the Center for Food and Nutrition Policy.

“The supply of food to the people of the world is an issue that we must address,” Storey said. “Biotechnology offers us the ability to enhance the nutrient value of our foods, it helps us reduce waste by reducing the amount of pesticides we use, and it can enhance productivity per acre.”

Preventing the importation of foods containing biotechnology in the United States and in Europe is an issue that we must address,” Storey said. “Biotechnology offers us the ability to enhance the nutrient value of our foods, it helps us reduce waste by reducing the amount of pesticides we use, and it can enhance productivity per acre.”

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Bonds on the Ballot

November 5

Vote Your Choice

(See ROUND TABLE on 2)
and most importantly, friends.” It’s this sort of role of advisers to become mentors, colleagues, superior support and guidance.

providing faculty members and students with material staff has garnered attention as well by challenges in their college experience.

department will receive a monetary award of received the award in 1997. This year, the award for superior advising the Department of in my four years at Virginia Tech.”

formed and helpful people I have encountered that each professor recognized me and was aware of my personal schedule and hopes for the future,” she said. “And each of these individuals was willing to assist me in meeting those goals in any way that they were able. It is the support that these professors give to each student that helps us plan our undergraduate careers and attain our future goals.”

Free storage available
Members of the campus community who have extra files may send them to an air-conditioned facility in the University Records Center. The storage is free. Additionally, Records Management Services has storage boxes (12x10x15) for sale at $1.50 each or boxes (16x6x10) for $1. The boxes may be picked up at the University Storage Facility any day between 8 a.m. to 5 p.m. Call Kathy Cannett at 1-6188, or e-mail kantrell@vt.edu to place orders.

Works sought for Brush Mountain Review
The English Students’ Society is now accepting submissions of poetry, prose, and essays to be published in the Spring 2003 edition of its magazine, The Brush Mountain Review. Students, faculty and staff members of all majors, levels, and disciplines are encouraged to submit their work. The deadline is November 15. Submit works by e-mail to subs3@vt.edu.

Chemistry department’s STEM seminar series begins November 1
By Courtney Ware, University Relations Intern
The Virginia Tech STEM (Science, Technology, Engineering, and Math) education seminar series will kick off its fall schedule on Friday, Nov. 1, with a seminar by Ketan Trivedi of the Department of Chemistry.

THREE
Continued from 1
formed and helpful people I have encountered in my four years at Virginia Tech.”

The seminar, sponsored by the Department of Chemistry, will begin at 11:15 a.m. in 3 Davidson Hall. Trivedi’s seminar is entitled “Instructional Material via Interactive Multimedia Technology on CD and DVD-ROM.” This series is a part of the Virginia Tech K-12 Outreach Initiative, an umbrella organization for science, technology, engineering, math education, and outreach efforts. The seminars are aimed at increasing faculty members’ awareness about issues in undergraduate and graduate education, and are open to all faculty members.

Two future seminars have been scheduled for fall semester. John Suppe, professor of geosciences at Princeton University, will present a seminar on November 15, and Joel Hagen, professor of biology at Radford University, is scheduled for December 5.

FRIDAY, OCTOBER 25, 2002

All MinE faculty members are active in helping seniors find jobs, and for more than a decade 100 percent of the department’s graduates have been placed in professional positions or graduate schools. “The professors have strong ties with industry leaders and are wonderful at helping us find great jobs and in positions that interest us most,” said MinE student Eric Gavin, president of the Burkhart Mining Society.

MinE’s success with student placement was cited on the front page of the Wall Street Journal in 1995. “The faculty’s work outside the classroom has made this department one of the best mining engineering programs in the nation,” Gavin said.

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The Office of the Provost has announced the recipients of the Women and Minority Artists and Scholars Lecture Series Grants for 2002-2003. The fund, as in past years, provides up to $500 to supplement departmental or college funds for up to six panel lectures and performances by women and minorities.

The purpose of the program is to increase the diversity of perspectives and creative expression available on campus and to increase the number of women and minority role models for our students.

Following are the recipients, speakers, topics and times for 2002-2003:

**Brian Brit, director, Religious Studies Program, CIS and Jesse Melton, Women’s Center; Susan Martina Kahn, senior research director, Brandeis University, “Reproducing Jews: The intersection of gender, technology, and religion,” Feb. 3, 2003.**


Nyusya Milman, foreign languages; Veronica Dolina, poet, Concert/performance: “Letters to myself: don’t trust, don’t beg, fate of women artists in contemporary Russia,” November 11.


Tom Ewing, history; Christine Ruane, “Consumer culture, gender, politics of women’s fashions in imperial Russia,” March/April 2003.


Nikol Alexander-Floyd, assistant professor for black studies, Center for Interdisciplinary Studies; Ingred Reneau, assistant professor of English, women’s studies at UNC, “Choreographing gender in the new world,” April 7, 2003.

Carol Bauer, assistant professor, Center of Interdisciplinary Studies; Sue Rosser, “Using the lenses of feminist theory to focus on women and technology,” March 20-22, 2003.


According to Tyler, “Phytophthora pathogens are literally destroyers from a distant kingdom. The genome sequences of these two species will for the first time enable us to identify and target their vulnerabilities to control them.”

Sequences of Phytophthora will further aid scientists in decoding the genomes of dia-toms, important marine species. The research activities will also train post-doctoral fellows and undergraduate students in a multidisciplinary, team-oriented environment.

Bruno Sobral from the Virginia Bioinformatics Institute and Jeffrey Boore from the DOE Joint Genome Institute (JGI) will collaborate with Tyler on this project. USDA and NSF funding was provided by those agencies’ collaborative Microbial Genome Sequencing Program. DOE funds are from its Office of Biological and Environmental Research.

At the meeting, Gentry will report that the method works for a six-gallon-per-minute spring. An unanticipated finding is that not all Blue Ridge springs are a result of saturated soil and shallow groundwater systems.

“Blue Ridge geology and hydrogeology is complex and there are multiple ways for water to appear at the surface, which is consistent with previous findings by Virginia Tech Ph.D. gradu-ates Bill Seaton,” Gentry reported. Gentry’s find-ings so far have not revealed evidence of water traveling a great distance—from rain at another site, for instance, or from water being pushed up when forced out of a reservoir by new water. “The small springs have responded to rain within 20 or 30 minutes, or at not all,” he said.

Gentry will use his equipment to solidify what is known about aquifers, to determine how much water is available and the properties of the soil and rocks.
McMullin returns from sabbatical with research information

By Sarah Keyser, University Relations intern

Steve McMullin, associate professor in fisheries and wildlife in the College of Natural Resources, returned from sabbatical research leave with information and experience to share with his students that can only be gained through hands-on experience.

During McMullin’s sabbatical leave, he worked for the Idaho Department of Fish and Game as a planning-and-human-dimensions advisor—the social science of fisheries and wildlife management. “Working for a management agency allowed me to return to my professional roots and to further enhance my credibility as an academic who has substantial non-academic experience,” McMullin said. “Before coming to Virginia Tech, I worked as a fishery manager for another state agency.”

McMullin completed a number of accomplishments during his leave. He conducted personal interviews with all seven fish-and-game commissioners, 12 Idaho state legislators who served on natural resource-related committees, and 14 upper-level agency administrators. This experience helped McMullin gain insight on how politics play into real-world natural-resource-management issues. McMullin developed interview schedules for focus-group interviews with hunters, anglers, non-consumptive users, landowners, and commercial interests in each of the state’s 77 administrative regions. He personally conducted nine of the 35 focus groups and trained 11 agency members to conduct the rest. Over 400 Idahoans participated in the focus groups, providing input to the strategic-planning process.

“The most rewarding part of my work with Idaho, is that in addition to refreshing my management agency experience, I was also able to collect data from several sources that will provide numerous publishing opportunities,” McMullin said. He will continue to work for the Idaho Department of Fish and Game on a part-time basis throughout the fiscal year through a sponsored-research project.

In addition to working for the State of Idaho, McMullin worked on several projects of importance to his position at Virginia Tech. He conducted continuing-education courses ranging from one to 10 days for the North Carolina Department of Wildlife Resources Commission and the U.S. Forest Service. He authored a summary report on the highlights of Virginia’s survey of fresh-water anglers that was published for the Virginia Department of Game and Inland Fisheries.

Landscape-architecture students capture third place in competition

By Sarah Newsbail

Three landscape-architecture students, Mike Casey, Rob Kish and Frank Hancock, took third place in the 27th Annual Student Competition in Landscape Architecture sponsored by the National Stone, Sand and Gravel Association (NSSGA) in conjunction with the American Society of Landscape Architects.

The students proposed converting a former aggregates operation (Holston River Quarry in Dublin) into an outdoor amphitheater, for the enhancement and eventual reclamation of the site. In coming third place affords the team a cash prize of $1,000. They will be honored at a luncheon today at 12:30 p.m. at the Donaldson Brown Continuing Education Center.

The competition provides an excellent learning experience for the students, according to faculty advisor Patrick Miller. “This is not just a blackboard exercise,” Miller said. “The students must understand the needs of a real client and prepare plans for a real project.”

The Virginia Tech Faculty Women’s Club (VTFWC) Fall Luncheon will be November 13, at noon, at the Best Western Lion Inn. The program, “Sinking Creek Reflections,” will be presented by Douglas Martin, human-resources manager at Virginia Tech. VTFWC membership is open to women and wives of administration, instructional, research and Extension faculty and staff members. Retirees, or wives of widows of retirees, and mothers and mothers-in-law of faculty and staff members are welcome.

The purpose of the VTFWC is to provide social and intellectual activities to its members to promote Virginia Tech, and to offer scholarship opportunities to deserving students. Members participate in interest groups, day trips, and luncheons featuring diverse speakers.

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