On Sunday, April 11, the College of Science and Technology presented the 2010 Academic Achievement Ceremony to honor outstanding students and faculty. Event keynote speaker and geography alumnus Mike Mullen, Vice President of the Federal Sector for INgage Networks, discussed the need for professionals to be interdisciplinary, since many projects call on collaboration among disciplines in science and technology fields.

Interim Provost and Vice President of Academic Affairs Joseph Scartelli, CSAT Dean J. Orion Rogers and program chairs, coordinators and directors offered congratulations to outstanding students for their hard work in the classroom, research and success in grant writing and publication of their work.

The afternoon ceremony included the recognition of the Dean’s Scholars, those recognized as outstanding examples of students who engage in community and college service and research while maintaining a high standard of academic achievement. This year’s Dean’s Scholars are Seth Younger (Geography), Lisa Cotsimopoulos (Geology), Gabrielle Miles Ness (Mathematics and Statistics), Jeremy Hodges (Information Systems), Daniel Burgess (Computer Science), Chris Estes (Chemistry), Caleigh Samuels (Physics), and Melissa Jayne (Biology).

Two faculty members were honored for their outstanding achievement in the classroom, research and service. Chemistry faculty member Cindy Burkhardt received the CSAT Outstanding Teaching Award. Burkhardt was nominated by her students and voted the 2010 outstanding teacher by the CSAT Dean’s Student Advisory Council. The student who nominated her said, “no other professor at Radford University has pushed my limits as hard and as far as she has. . . No other teacher has made me both hate and love chemistry. Other teachers have been there with the answers, but she challenges you to get your own conclusions time and again.”

Math assistant professor Laura Spielman was awarded the Artis Outstanding Faculty Award for Scholarship and Service for her work in coordinating the graduate degree program in math education, her service as the inaugural advisor of the CSAT STEM Club, and her great success in acquiring more than $700,000 in grant funds.

Also honored were this year’s and next year’s Dean’s Student Advisory Council. The Council’s purpose is to serve as a liaison between students and faculty, and to foster collaboration among students across disciplines. Their initiatives include the RU Science Exploration Day for the Boy and Girl Scouts and participation with the SuperMACC tournament. Dr. Rogers has “absolutely and unequivocally” enjoyed working with this year’s council.

2009-2010 council consisted of Brittany McReynolds (Anthropology), Erin Fowler (Biology), Brittany Christian (Chemistry), Tyler Bristow (Geography), Lisa Cotsimopoulos (Geology), Stephanie Kinsella (Computer Science), Brittany Little (Information Systems), Gabrielle Miles Ness (Math/Statistics), and Caleigh Samuels (Physics). Next year’s council includes Brittany McReynolds (Anthropology), Erin Fowler (Biology), James Corwin Johnson (Chemistry), Brendan Conniff (Physics), Brian Putt (Computer Science), Brittany Little (Information Systems), Tyler Bristow (Geography), Sarah Gregory (Geology), and Abby Thompson (Math/Statistics).
Biology faculty member Karen Francl will receive more than $50,000 from Cincinnati-based Environmental Solutions and Innovations, Inc. to survey for the endangered Indiana bat and concurrently research a deadly fungal disease called white-nose syndrome affecting a number of species of bats in the eastern United States. Francl, and CSAT students Tessa Canniff, Craig Bland, Kaelin Creange, Dwight Meikle and Garret Good will survey the bat population from June 1 – 21 and July 15 – August 15. During the past two years, Francl and undergraduate students have received $101,000 from Environmental Solutions and Innovations, Inc. to complete similar research in Pennsylvania, Kentucky, New Jersey and Southwestern Virginia. This summer’s research location has not yet been determined.

“Our surveys focus on the detection and capture of the federally-endangered Indiana bat, Myotis sodalis. However, this work is useful in documenting the health of individual bats of all regional species, which is important in light of White-nose Syndrome - a deadly fungal disease that has killed more than 1 million bats in the last 4 years,” says Francl. “We will be testing out two new methods in assessing bat wing damage this summer, in an effort to document the long-term impacts of this syndrome, and provide improved, vetted techniques for wildlife managers to utilize throughout the country.” Francl says that this research will help document the presence of an endangered species and assess the health of the entire bat community in the eastern United States. “As the deadly white-nose syndrome is decimating winter populations – we are seeing upwards of 90 percent mortality in caves – we are documenting poorer health in the survivors of the community in the summer. Now, more than ever, we need to understand how even the most common bat species are being affected by this disease, and what we can do to monitor our communities,” says Francl.

This work is also important to the students because it provides them hands-on work as environmental consultants. Biology graduate Allen Patton is now employed with a bat-surveying agency in Pennsylvania thanks to his work with Francl on her previous bat research. The research also provides students with a field opportunity to complete independent research projects or internships, as well as co-author (with Francl) peer-reviewed journal articles in regional or international journals.
Thompson Receives the Statewide Scholarship Award - Ross Gillette '10

Junior mathematics major Abby Thompson recently received the Virginia Council of Teachers of Mathematics (VCTM) Scholarship Award. Only two students from RU have ever received this award. Each year, the VCTM Scholarship is given to two Virginia students who show the greatest potential for a successful career teaching mathematics as indicated by scholastic records, recommendations of two faculty members, and the applicant’s narrative statement. The award includes a $2,000 scholarship, and a one year membership to the VCTM.

Thompson is actively involved in campus life. She is a second year resident assistant in Muse Hall, a brother and officer of the service fraternity Alpha Phi Omega, serves as the student representative on the Mathematics Recruitment and Retention Board, and has recently been appointed the Mathematics and Statistics representative on the Dean’s Student Advisory Council. Thompson is scheduled to graduate in the spring of 2011, and hopes to teach middle school mathematics upon graduation.

Students Present Research at Forum

On Tuesday, April 13, more than 40 faculty and undergraduate students presented their research at the Fourth Annual Biological Sciences Research Forum in Cook Hall. The following students and faculty presented research.

Determined if HIRA and ASF1 and/or as2 physically interact in Arabidopsis thaliana during development.—Angela Via and Tara Phelps-Durr

Correlation of hand-washing behavior and awareness of pandemic influenza—Jennifer Ridge and Erica Weston

Molecular Characterization of Bacteria from an Arsenic Mine—Megan Beaton, Jason Greenway, Tyler Jamison, and Lindsey Baumol and Georgia Hammond

Gastrin-releasing peptide causes primary anorexigenic effect in chickens—Collette R. Dougherty and Mark A. Cline

Short-term effects of prescribed fire on small mammal communities at Caldwell Fields, Jefferson National Forest—Dwight E. Meikle, Karen E. Franci and Christine J. Small

Effects of ACTH 22-39 on Energy Balance and Behavior in Chicks—Caitlin A. Reid, Evin L. Guiliams, and Marissa L. Smith

Mobilization of Toxic Forms of Arsenic by Bacteria—Megan Beaton, Jason Greenway, Tyler Jamison, Lindsey Baumol and Georgia Hammond

Neuropeptide AF differentially affects anorexia in lines of chickens selected for low and high body weight.—Brandon A Newmyer, Paul B Siegel® and Mark A Cline

Coffee extracts exhibit larvicidal and anti-La Crosse virus activity—Nicole Eastep and Rachel Albert

Relationships between crab size and inhabited shell species, size, and integrity of Soldier Crabs (Coenobita clypeatus) from beach and dry forest habitats on St. John, US Virgin Islands—Wes Rogers and Claire Patterson

Comparing Indian Mongoose populations across two sites of varying elevation on St. John, U.S. Virgin Islands—Maya Azzi, Robert Bland, Anna Burgess and Tessa Canniff

Agitation and the reemergence times of the marine worms Sabellastarte magnifica and Spirobranchus giganteus—Jordan Kime and Jason Langteau

The effect of trails on tropical dry forest structure on St. John, US Virgin Islands—Tara Faulkner, Melissa Jayne and Gabrielle Ness

Coral cover, composition, and damage/disease at several sites near St. John, US Virgin Islands—Jennifer Greenwood, Garrett Good and Tara Connor

Expression of the anti-inflammatory enzyme CYP4F18 in mouse leukocytes—Justin Drake, Rebecca Nightingale, Catherine Romano and Peter Christmas

Comparison of surveying techniques in documenting summer bat communities—Robert C. Bland, Karen E. Franci, Jessica S. Lucas® and Christine J. Small

Developing Morphological Sexing Methods for Eastern Screech Owls (EASO) using Morphometrics and DNA analysis.—Tessa Canniff, David McRuer® and Bob Sheehy

Effects of experimental harvesting on Black Cohosh (Actaea Racemosa) a southern Appalochian medicinal herb—Matt C. Brennan, Christine J. Small, and Jim Chamberlain®
Student Spotlight

CSAT STEM Club
Activities and Upcoming Events
By Arielle Reynolds

CSAT STEM Club is nominating officers for the 2010-2011 school year. We have decided to have members vote on RU Involved. Voting will be open from Wednesday, April 14 at 5 p.m. through Friday, April 16 at 5 p.m.

The next colloquium speaker is Dr. Skip Thompson. He will give a talk called Pretty Pragmatic Ploys for Playing with Parametric Problems on Thursday, April 15 at 5 p.m. in Walker 225.

CSAT STEM Club will participate in the Earth Day celebration on Thursday, April 22. Club members have researched and collected interesting environmental facts to display as a part of the celebration.

The club’s spring service project is to donate various goods to the Women's Resource Center in Radford. Our goal is to collect over 100 items by Tuesday, April 27.

The club will be hosting a Spring Picnic on Monday, May 3 from 4-7 p.m. at Bissett Park. All students, faculty and friends are invited to come. Everyone is encouraged to bring their favorite potluck dish and games.

A Message from the Student Government Association
By Clarissa Clark, CSAT SGA Representative

The Green Fund Referendum on the SGA ballot last week passed. More than 52 percent of students who voted last week were in favor of the institution of a Green Fund. Once implemented, a fee of less than $15 per semester will be charged along with student activities fees. This will create a fund dedicated to reducing RU’s consumption of fossil fuels, growing green energy jobs, and creating other student-determined sustainability projects. Passing this measure helps RU to become one of the greenest campus in Virginia – alongside schools like William and Mary, UVA, and JMU, that have already established Green Funds.

Stay tuned for updates as SGA works to create the Green Fund and establish a committee of students, faculty and administrators to allocate these funds for “green” projects.