Message from the Dean

As we look forward to the start of our first full academic year as a college, there are lots of reasons for optimism and excitement, and I mention just a few. First, on the heels of the recent awarding of the UWise (Georgia BOR STEM II) initiative, UWG has just received another boost in its quest to become a first-rate STEM education institution with the recent awarding of the UTeach grant. Also, working with the department chairs this spring, we have managed to stabilize the departments' operating budgets to reasonably effective levels in spite of current budgetary constraints; the revised budgets took effect July 1st. The monthly “Dean’s Seminar Series” will commence this fall, with the first three speakers already scheduled. We have begun exploring new initiatives to attract enthusiastic high school students, as well as our own undeclared majors, to our programs. In graduate education, we are thrilled to announce the approval of the new “Master of Geographic Information Systems” program which will be launched next spring. Furthermore, effective Fall 2011, the Master of Science in Applied

Computer Science will be delivered completely online. With the administration of graduate education being shifted to the individual colleges, we are working to make the transition as smooth as possible, and foresee overall growth and success in our graduate programs.

I conclude by mentioning some noteworthy changes to the COSM Dean’s office staff, as of July 1st. I am pleased to welcome Dr. Scott Gordon, Professor of Mathematics, who joins us as Associate Dean, and will be handling much of the curricular and student issues. We are also very glad that Ms. Alice Wesley has joined us as Departmental Assistant, whose primary duties involve graduate education. Finally, we thank Dr. Duane Yoder for his years of outstanding service as Associate Dean for the College of Arts and Sciences and (most recently) the College of Science and Mathematics. Dr. Yoder was immensely effective in getting our new college “off the ground” and in the right direction. He will be missed in this office and we wish him the best in all of his endeavors.

– Bruce Landman

Biology Faculty Member Receives $250,000 NIH Grant

**Dr. Melissa A. Cavallin**, Assistant Professor of Biology, has been awarded a National Institutes of Health grant entitled “Phosphatase regulation of olfactory bulb mitral cell activity.” It is a 3-year R-15 Academic Research Enhancement Award, with $250,000 in direct costs.

Kv1.3 is an ion channel that regulates the sense of smell. Both Kv1.3 and the phosphatase SHP-2 have been linked to regulating body weight, energy balance, and insulin levels. The link between these two proteins in the olfactory system has implications not only for sensory function, but also for energy homeostasis. This grant proposal is designed to study the regulation of the voltage-gated potassium channel, Kv1.3.
NIH, continued from page 1

by insulin in the mitral cells of the olfactory bulb. Modulation of mitral cell activity alters olfactory sensory perception; therefore, understanding how Kv1.3 current is influenced by insulin via phosphatase activation will elucidate potential mechanisms that control mitral cell firing. The objective of this research is to understand how the regulation of the dephosphorylation of Kv1.3 could potentially lead to altered insulin signaling in the olfactory bulb, which results in changes in mitral cell firing and olfactory sensory perception.

Physics Professor Receives Award

Dr. Bob Powell, Professor and Chair of Physics, was named Advisor of the Year for all campus organizations at the Campus Activity Awards Program on April 19. He was nominated by the Chi Omega sorority. This is the third time he has received this honor.

Area High Schoolers, UWG Undergraduates Compete in Math Day

The Department of Mathematics hosted its 40th annual Math Day event on March 18, 2011. The event drew a record 180 students representing 15 area high schools. After a welcome address from Dr. Beheruz Sethna, the students took part in a written individual competition while their teachers were treated to a lecture entitled “Rabbits in the backyard, Hercules and Danny: The worries of a distracted mathematician,” presented by Dr. Mohammad Yazdani. Afterwards, students from each school divided into teams according to level; the teams of each level worked on a single challenging problem. After lunch, Dr. Scott Gordon lectured to students and teachers on the subject of fractals. The day wrapped up with an oral competition between the top five students at each level, after which awards were presented for the top individual students, best team problem solutions, and top schools. Starr’s Mill High School in Fayetteville took top honors. The day also featured a competition for UWG undergraduates, organized by Dr. Vu Tuan. First place went to senior math major Brian Brodsky; second and third place went to Thomas Compton and Julia Zyyabletsova, respectively.

COSM Faculty Member Works on EPA Green Roof Project

Dr. Shea Rose, Assistant Professor of Geosciences, was selected for a faculty-student team to spend the summer of 2011 working on a green roof project at the Environmental Protection Agency for the Office of Atmospheric Programs, Climate Protection Partnership Division, Heat Island Reduction Program in Washington, D.C. Two Geography majors, Chris Tripp, an undergraduate student, and Michael Edwards, a recent graduate from the University of West Georgia, are working with her at the EPA. Green roofs cool the air and provide stormwater reduction.
Research Day Student Winners Announced

The Research Day 2011 undergraduate science student research paper competition was held on April 5, 2011 at UWG. Several students in the sciences presented their research. The winners were selected by a panel of faculty judges. First prize went to Victoria Martin, for her presentation “Dye-sensitized photovoltaic cells using natural dyes extracted from mondo grass berries.” Victoria received the Dr. James N. Mathis Undergraduate Student Research Award, a cash prize and a presentation slot at Big Night, held April 14, 2011. Her advisors were Dr. DeSilva (Physics), Dr. Hasbun (Physics) and Dr. Gaquere (Chemistry). Second Place was awarded to Ross Byrd for “The nature of protein transfer in super-cooled aqueous solutions;” he was advised by Dr. Stuart (Chemistry) and Dr. Hansen (Chemistry). The Third Place winner was Anton Hud, advised by Dr. Hasbun, for “Low frequency oscillations in a planar material.”

COSM Students Present Their Research at National Meeting

Several of our students presented their research at the 25th National Conference on Undergraduate Research, held at Ithaca College in New York, March 31 - April 2, 2011. The students are Jacob Kimbrell, Christopher Crittenden, Joshua Hite, Grace Liu and Kimberly Bacon, each from the Department of Chemistry and the Honors College; and Surangi Perera, from the Department of Biology. The students were mentored by Dr. Farooq Khan (Chemistry), Dr. Megumi Fujita (Chemistry), Dr. Swamy Mruthinti (Biology), and Dr. Mautus Mitra (Biology).

Faculty Accolades

Articles:


Books:


Book Chapters:


Continued on page 4
Presentations at Meetings:

Martin, V., DeSilva, A., Hasbun, J.E., Basu-Dutt, S., and Gaquere, A.

Williams, M., DeSilva, A., Hasbun, J.E., Basu-Dutt, S., and Gaquere, A.

Crowder, R. and Gaquere-Parker, A.

Darden, A. and Gaquere-Parker, A.
"Spectroscopic analysis of C60, C70 and C60 derivative C60 (OH)n." Poster Presentation, SERMACS, New Orleans, LA, December 2010.

Zahoor, N. and Gaquere-Parker, A.

Mitra, M., Dewez, D., Bachman, N. and Melis, A. "Specific polyclonal antibodies against the 23 kDa TLA1 protein also recognize with high affinity a 28 kDa protein in the green alga Chlamydomonas reinhardtii." Twenty Eighth Annual Eastern Regional Photosynthesis Conference, Woods Hole, MA, April 2011.


Walter, A. and Hankins, K.B.

Walter, A. and Hankins, K.B.


Wei, F.R. “Consistent model pursuit in semiparametric regression.” North Carolina State University, NC, April 8, 2011.

Funded Extramural Grants and Contracts:


Extramural Grant and Contract Submissions:


Colloquia:

Khodkar, A. “Complete sets of metamorphoses: twofold 4-cycle systems into twofold 6-cycle systems.” Azarbijan University of Tarbiat Moallem and Sharif University, Iran, May 21 and 23, 2011.

Other Professional Honors:

Dr. Minh Van Nguyen (Mathematics) was appointed Editor of Vietnam Journal of Mathematics for the term 2011-2015.

Dr. Bob Powell (Physics) was named President of the Georgia Academy of Science for the term 2011.