



Spring 2003



SSM news

College of Charleston

SSM's

New

Dean

Norine Noonan



"Every Basset is An Asset"

Dr. Noonan was previously the Executive Director of the National Space Science and Technology Center in Huntsville, AL. Prior to that she served as the Assistant Administrator for Research and Development at the U.S. Environmental Protection Agency, where she led an organization of 2000 scientists and engineers, and before that she was Vice President for Research and Dean of the Graduate School at Florida Institute of Technology in Melbourne, FL. Dr. Noonan also served as Chief of Science and Space Programs in the White House Office of Management and Budget in Washington, DC. Dr. Noonan was also a charter faculty member at the University of Florida, College of Veterinary Medicine.

Dr. Noonan is a Fellow of the American Association for the Advancement of Science (AAAS) and was elected to the AAAS Board of Directors in 2001. She is also a member of the American Society for Cell Biology, Sigma Xi and Phi Beta Kappa. Her professional activities include Chairmanship of the NASA Planetary Protection Advisory Committee and Chair of the Government Performance and Results Advisory Committee of the National Science Foundation. Dr. Noonan received her B.A. from the University of Vermont, *summa cum laude*, in zoology and her M.A. and Ph.D. degrees in cell biology from Princeton University. "I'm honored to lead this wonderful school at this outstanding institution. CofC & SSM students, faculty, and staff are the best." She has also bred, owned, and trained basset hounds for over 30 years.

SSM AWARD WINNERS!

Congratulations to this year's faculty award winners: **Lindsay Packer** (Mathematics) - CofC Distinguished Teaching Award, **Jim Neff** (Physics and Astronomy) - CofC Distinguished Research Award, **George Haborak** (Mathematics) - CofC Distinguished Service Award, **Deanna Caveny** (Mathematics) and **Norris Preyer** (Physics and Astronomy) - CofC Distinguished Advising Award, **Rick Heldrich** (Chemistry and Biochemistry) - SSM Distinguished Achievement Award. Thank you for all of your hard work and dedication!

SSM Facts and Figures 2002-2003*

Undergraduate Majors

Biology	740
Chemistry	149
Biochemistry	83
Computer Science	216
Geology	52
Mathematics	67**
Physics & Astronomy	74
Total	1381

**The exact number of undergraduate majors in Mathematics is indeterminable since double majors are not included.

Graduate Students

Biology	48
Computer Science	50
Geology/Environmental Studies	81
Mathematics	14
Total	124

Roster Faculty

Biology	30
Chemistry & Biochemistry	15
Computer Science	12
Geology	12
Mathematics	34
Physics & Astronomy	18
Total	121

*All figures are based on Fall 2002 enrollment

Evolution & Economics

Dr. Geerat Vermeij, an evolutionary biologist at the the University of California at Davis, was the Fall 2002 guest speaker for the School of Sciences and Mathematics' annual Conrad D. Festa Community Lecture in Science and Math. Dr. Vermeij's lecture focused on Evolution and Economics. He argues that all living things comprise economic systems in which individuals compete for locally limiting resources. Dr. Vermeij has been blind since childhood and has a acute sense of touch. He probably knows more about mollusks and their shells than anyone alive. Dr. Vermeij is a field naturalist and explorer of the coasts of nearly every continent and has published nearly a hundred articles and four books. He also holds a MacArthur Fellowship, (The "Genius Grant").

NSF Funds Undergraduate Summer Research Program

The National Science Foundation (NSF) has renewed funding for the Undergraduate Research Program at Ft. Johnson through its Research Experiences for Undergraduates (REU) Program. This ten-week program combines formal classroom work with independent research in areas of critical concern for marine biologists today. The College of Charleston serves as the primary host, but course instructors are also drawn from more than 100 Ph.D. scientists who work for the Medical University of South Carolina, the National Institute of Standards and Technology, the National Ocean Service, and the South Carolina Department of Natural Resources, all at Ft. Johnson. The program provides students with an opportunity to conduct independent interdisciplinary research guided by a faculty mentor; to engage in discussions of graduate school and career options in basic and applied sciences; and to improve oral and written presentation skills.

Undergraduate students from the College of Charleston and other institutions around the U.S. are selected to participate in this program based on outstanding academic and personal achievement, evidence of advanced course work in physiology and cell or molecular biology, and on the potential of this research experience to benefit the student. Participants live on-site at the Grice Marine Laboratory for a "total immersion" experience. The students participate in a special seminar course, "Special Topics in the Physiology, Cell and Molecular Biology of Marine Organisms," and also work on independent research projects under the guidance of individual faculty members. All students present their work at the end of the program.

The program maintains strong ties with former REU participants in order to evaluate the impact of the research experience on career choices and progress. Information regarding the current program, participants from prior years and their research projects, as well as an application form are available on the Web at www.cofc.edu/~grice/summer.htm, or by contacting the Program Director, Dr. Louis E. Burnett, at (843) 953-9200 or burnettl@cofc.edu.

Rick Heldrich Named Director of Undergraduate Research

Dr. Rick Heldrich of the Department of Chemistry and Biochemistry has been named Undergraduate Research Director for the College of Charleston. Dr. Heldrich comes to the position with years of experience mentoring and supporting undergraduates.

As the Director of Undergraduate Research Dr. Heldrich has worked hard to encourage all CofC schools to participate in research. Visit the Website (www.cofc.edu/UR). Dr. Heldrich has worked to develop a common definition for "research" that applies to all disciplines and has provided support for students and faculty from many departments to participate in research and scholarly activities. Dr. Heldrich is hopeful that he can develop programs that will facilitate student-faculty research activities, and that he can find ways to financially support these activities and create assessment tools to measure success. He is establishing an internal advisory committee to help guide and shape the programs and activities that will best support the CofC community. Dr. Heldrich states that "there is no single endeavor on our campus that I feel is more important than to increase the stature and success of undergraduate research."

News Briefs

Our Students

- Undergraduate geology researchers, Jessie Sladek and Dianne Turgeon, presented research results in the volcanology session at the Annual Meeting of the Geological Society of America in Denver, Colorado.
- Six Computer Science Students participated in the Southeastern Regional Computer Programming Competition sponsored by the Association for Computing Machinery and IBM on October 12, 2002.
- Undergraduate Physics student, Kwayera (Kiwii) Davis is serving as the regional student representative to the Society for Physics Students and attended a national SPS meeting in Washington, DC.
- SSM took 42 students to the South Carolina Academy of Sciences Annual Meeting at Clemson. They presented 32 papers and had 3 winners in 4 categories. Aadra Bhatt won best Presentation in Cellular Biology and Best Overall Presentation by a Female, as well as the Horace Byrne Award for Excellence in Undergraduate Research Presentation. Alexey Bogomolov and James Crawford won Best Presentation in Computer Science and S. Patrick Dunn won Best Presentation in Chemistry.

Biology & Marine Biology

- Brian Scholtens is featured in the November 2002 edition of Scientific American in an article on the "bio-quest" in the Smokey Mountain National Park. The aim of this program is to assemble a complete and scientifically rigorous data base of the flora and fauna living in the Great Smokey Mountain National Park.

Chemistry & Biochemistry

Rick Heldrich has been named as this year's School of Sciences and Mathematics Distinguished Achievement Award Winner.

- The Chemistry Department hosted the 2002 South Eastern Regional Meeting of the American Chemical Society November 13-16. They hosted many

- October 21-25 was National Chemistry Week. The Chemistry Department hosted numerous campus activities on October 23.

Computer Science

- Bill Manaris and Renee McCauley received a grant from NSF entitled, "Incorporating HCI into the Undergraduate Curriculum: A Community Building Initiative", to the National Science Foundation in the amount of \$78,461. It will fund a campus workshop in June of 2003 for researchers from the US and abroad.
- The Department of Computer Science received Commendations of Excellence from the Commission on Higher Education for their BS in Computer Science, BS in Computer Science Information Systems, and BA in Computer Science programs. They were the only Computer Science programs in the state to receive this honor.

Geology & Environmental Geosciences

- Mike Katuna and Tom Putney gave a presentation at the Bald Head Island Conference. The conference was by invitation only for researchers who are working on the Atlantic Coastal Plain.
- Earthquaker, Steve Jaume, appeared on the TV news again (Channel 5) talking about Charleston's recent earthquake.
- Leslie Sautter was featured in an article in the Post and Courier about her outreach activities in ocean science for students in South Carolina.

Mathematics

- Liz Jurisich's Young Investigator's Grant from the National Security Agency (NSA) was recently renewed for a second year at \$14,945 per year.

- Tom Ivey coauthored a book "Cartan for Beginners: Differential Geometry via Moving Frames and Exterior Differential Systems". The book has been accepted for publication by the American Mathematical Society in their Graduate Studies in Mathematics Series.

- Annalisa Calini and Tom Ivey received an NSF research grant, "Integrable Dynamics of Knotted Vortex Filaments", of \$148,000 over the next 3 years. The grant includes an undergraduate student project.

Physics & Astronomy

- Norris Preyer gave an invited talk at Francis Marion University on "How Circuits Work: Surface Charges, Feedback, and the Finite Speed of Light".
- Gordon Jones was selected by Kappa Delta Pi, (the honorary society of the School of Education), for an award made annually to an "outstanding educator."
- Tim Giblin gave an invited talk to the 2002 Rome conference on "Gamma-Ray Bursts in the Afterglow Era." Jon Hakkila presented a poster at the same conference.

SSM

- Jeff Wragg, Jim Deavor, Paul Marino, and Debby Jeter participated in Admissions' first Online Open House.
- The School of Sciences and Mathematics would like to thank Dr. Bob Dukes for serving as SSM's Associate Dean since August of 1999. We appreciate all that he has done for us and wish him a successful sabbatical in 2003.

ALUMNI!

Send us your news!

We want to know what you are doing.

Tell Us What You Think!

We hope to write/send SMM News twice a year. Please share your news with us and tell us the types of articles that you're interested in by returning the form below. Or tell us your ideas when you are called during the Annual Phonathon. You can submit letters to the editors or contact us directly at SSM_News@cofc.edu.

Please make an annual gift to help the School. You may earmark your tax-deductible gift for a particular department, student summer research needs, or for the School as a whole. Checks should be made payable to the College of Charleston Foundation and you should indicate your designation on your check or separately. Send your gift to the College of Charleston Foundation, 66 George Street, Charleston, SC 29424. You can also make your pledge when called during the phonathon or online. We need your help!

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News: _____

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Web Addresses for SSM and its Academic Departments

School of Sciences and Mathematics

<http://www.cofc.edu/~ssm/>

Biology

<http://www.cofc.edu/~biology/>

Grice Marine Laboratory

<http://www.cofc.edu/~grice/>

Chemistry & Biochemistry

<http://www.cofc.edu/~chem/>

Computer Science

<http://www.cs.cofc.edu/>

Geology

<http://www.cofc.edu/~geology/>

Mathematics

<http://math.cofc.edu/>

Physics and Astronomy

<http://www.cofc.edu/~physics/>

Lowcountry Hall of Science & Mathematics

<http://www.cofc.edu/lowcountryhall/>

Alumni, Parents and Friends

<http://www.cofc.edu/connections>

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