



Virginia Scientists

Volume XX, Issue 2

April, 2011

Academies to Meet at University of Richmond



The 89th Annual Meeting of the Academy will be held at the University of Richmond, May 25-27, 2011. The 70th Annual Meeting of the Virginia Junior Academy of Science will be held May 24-26, 2011. We are one of the few academies in the nation to meet concurrently with our Junior Academy. Our purpose is to provide unique opportunities for mentoring young scientists and recruiting them to Virginia colleges and universities.

Information on judging, lodging, tours, speakers, registration, etc. is at www.vacadsci.org ...click MEETINGS" then Registration and Information" to get to the official meeting site.

Your support is needed on Wednesday, May 25! Lend a hand in judging student paper presentations or scholarship awards in

excess of \$120,000 and "Dinner With The Scientists." Contact VJAS Director Susan Booth today! ... susanscience@msn.com



Dr. Edward Ayers, UR President, welcomes VAS & VJAS

2011 George W. Jeffers Memorial Lecturer

Dr. Cynthia Keppel

Hampton University, Jefferson Accelerator

Dr. Cynthia Keppel leads the technical and research programs of the Hampton University Proton Therapy Institute (HUPTI) as the scientific and technical director, bringing a wealth of knowledge from both nuclear and medical physics to the team. Keppel joined Hampton University over



10 years ago. She currently holds a joint position as Hampton University Endowed Professor and also as Staff Scientist at the nearby Thomas Jefferson National Accelerator Facility, one of the nation's premier nuclear physics institutions. Keppel has authored seven patents relating to cancer diagnosis and treatment and has published over 130 peer-reviewed publications on topics ranging from nuclear phenomenology to medical instrumentation. She has received numerous awards and grants, and currently oversees nearly \$1 million annually in external research support. Keppel received her Ph.D. and MS from American University and a B.A. from St. John's College. Dr. Keppel was named 2011 Virginia Outstanding Scientist by the Commonwealth of Virginia and the Science Museum of Virginia; she is also recipient of the State Council of Higher Education for Virginia's Outstanding Faculty Award.

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Annual Meeting Plenary Speakers

Cynthia Keppel (page 1), James Russell (page 3) & Lisa Gentile (page 3).

Academy Awards \$2500 for Undergraduate Research

In support the Academy's efforts to encourage young scientists at the earliest stages of their careers, the annual Undergraduate Research Conference was held at the Science Museum of Virginia on Saturday, October 16, 2010. At this meeting, five \$500 research grants were awarded to undergraduate students to support their research during the 2010-11 academic year. Each of the undergraduates presented posters on their proposed research to a team of judges. In addition, the recipients of the research awards will present the results of their work at the VAS Annual Meeting in May. Research grants were awarded to 6 winners from three Virginia Institutions of higher education.

Each year the conference is held for students at Virginia's four-year colleges and community colleges. Our purpose is to encourage undergraduates early in their careers to focus on research as an essential component of both their current educational experience and their career objectives when they enter the work force.

(Continued, See "VAS Winners," page 2)

VAS Winners - Fall 2010 Undergraduate Research Conference *(Continued from page 1)*

Grants of \$500 were awarded as follows:

Brandon Newmyer

Radford University

Faculty Advisor: Mark Cline

Project title: Determining the Hypothalamic Mechanisms of Neuropeptide AF-Induced Anorexia in a Mammalian Model



Collette Dougherty

Radford University

Faculty Advisor: Mark Cline

Project title: Central Mechanisms of Gastrin-Releasing Peptide-Induced Anorexia in Chicks



Andre Han,

Virginia Tech

Faculty Advisor: Pablo Sobrano

Project title: Biomedical Characterization of Flavin Adenine Dinucleotide Dependent Monooxygenase from *Aspergillus fumigatus*



Erin A. Haynes and Bowyn A. Wang

University of Mary Washington

Faculty Advisor: Theresa Grana

Project title: Nematodes in Virginia: Comparative Development and Model Organism Characteristics



Anum Shaikh

University of Mary Washington

Faculty Advisor: Deborah O'Dell

Project title: Effects of Combined Vitamin C & E Treatment on Plaque



Nominations and Elections Committee Report

2011-12 PRESIDENT – Dr. Michael H. Renfroe, currently President-Elect, is Professor of Biology at James Madison University.

Dr. Renfroe conducts research on tissue culture propagation of rare and endangered plant species and on antioxidant content in foods and beverages of plant origin. Dr. Renfroe has been active in the Virginia Academy of Science since arriving in the state and has also served as Academy Vice President, Secretary, and Treasurer; Mike is a member of the Flora Committee and the Advisory Board for the *Flora of Virginia*; he has also served as Chair and Vice Chair of the Botany Section.



He received his Ph.D. from the University of Connecticut. Since 1971 he has taught undergraduate courses in general biology, invertebrate zoology, and human anatomy and physiology at NVCC and courses in parasitology at George Washington University. Dr. Eckerlin was the recipient of the 2009 SCHEV Outstanding Faculty Award.



His research interests are in the distribution, biogeography, and taxonomy of parasites, particularly fleas. He is a Research Associate of the Carnegie Museum of Natural History and the Virginia Museum of Natural History.

Dr. Eckerlin has been a member of the Virginia Academy of Science for more than 30 years and has served as Academy Vice President, Treasurer and Membership Committee Chair. He has been Chair, Vice Chair, and Secretary of the Biology Section.

The Nominations and Election Committee places in nomination the following slate of officers for 2011–2012:

PRESIDENT ELECT – Dr. Ralph P. Eckerlin is Professor of Biology at Northern Virginia Community College.

VICE PRESIDENT – Dr. Deborah A. O'Dell received her Ph.D. in Cellular and Developmental Biology from SUNY Stony Brook,

Continued, See "Officers," page 3

Officers Nominations *(Continued from page 2)*

and completed a post-doc in neurophysiology at Cambridge University, UK. She is currently Associate Professor in the Department of Biological Sciences at the University of Mary Washington. Her research examines the cellular basis of behavior, as well as growth and function in the nervous system.

She is currently Chair for the Biology with Microbiology Section of the Academy having served previously as Vice Chair and Secretary.



SECRETARY – Dr. David Martin Crosby received his Ph.D. in Fisheries Biology from Auburn University in 1987. Since 1993, Dr. Crosby has been the Fish Health Specialist with the Virginia Cooperative Extension at Virginia State University. He also worked for the Mississippi Cooperative Extension service, MSU in Stoneville, Mississippi as an Area Fisheries Specialist. Since 1998, Dr. Crosby has served as Secretary, Editor and Chair for the VAS Agriculture, Forestry and Aquaculture section. Dr. Crosby is currently serving as Treasurer and Councilor for the section. For many years, Dr. Crosby has participated in the judging of student papers in the JVAS. Dr. Crosby is a member of the American Fisheries Society (Fish Health Section & Fish Culture Section), American Society of Parasitologists, American Microscopical Society, and Helminthological Society of Washington.



TREASURER – Richard S. Groover serves as Assistant Dean of Mathematics and Science at J. Sargeant Reynolds Community College where he is also an Associate Professor of Biology. His research focuses on dragonfly dispersal, colonization, and re-colonization of lentic habitats. Richard has served as Chair of the Academy's Membership Committee and mentors undergraduate research students; among his accomplishments are listings in *Who's Who Among American Teachers*, Virginia Academy of Science Small Project Grant, and the Virginia Community College System's 2008-10 Chancellor's Commonwealth Professor..



2011 Sidney S. Negus Memorial Lecturer

Dr. James M. Russell, III

Hampton University, NASA-LRC

Dr. Russell served as head of the Chemistry and Dynamics Branch and the Theoretical Studies Branch in the NASA Langley Atmospheric Sciences Division and currently he is an Endowed Professor of Atmospheric and Planetary Sciences and Co-Director of the Center for Atmospheric Sciences at Hampton University in Virginia. He received the BSEE degree from Virginia Tech, the MSEE degree from the U. of Virginia and the PhD in aeronomy from the University of Michigan. Among his numerous awards, are the NASA Medal for Exceptional Scientific Achievement, the NASA Medal for Outstanding Leadership and the Virginia 2008 Outstanding Scientist Award. He is author or co-author of more than 400 papers in the scientific literature. His paper describing scientific results from the HALOE experiment was the most cited paper in geosciences during the period 1991 – 2001.



VJAS General Session Lecture

Dr. Lisa N. Gentile

University of Richmond

Lisa attended Colgate University as an undergraduate where she majored in chemistry and was a collegiate swimmer. She completed her Ph.D. in biochemistry at Brown University and did postdoctoral work in biophysics, supported as a Jane Coffin Childs Postdoctoral Fellow, at the University of British Columbia in Vancouver, BC.

Lisa is in her 13th year as a faculty member at University of Richmond. Her scholarship focuses on the structure, dynamics, and regulation of proteins involved in disease. She has published 30 peer-reviewed articles, many with undergraduate co-authors. In addition to mentoring undergraduates, Lisa and her group work on independent research projects with local high school teachers and students. In the past 5 years, she has served on multiple federal agency funding panels. In 2010, Lisa received the American Society of Biochemistry and Molecular Biology (ASBMB) Award for Exemplary Contributions to Education.



FLORA OF VIRGINIA PROJECT

Fall 2010 Progress Report

On August 27, 2010, the Foundation of the *Flora of Virginia* Project celebrated the ninth anniversary of its first meeting. Since 2001, the *Flora* Project, working with the Virginia Natural Heritage Program, the Virginia Native Plant Society, the Virginia Academy of Science, Virginia Botanical Associates, Lewis Ginter Botanical Garden, the Foundation of the State Arboretum, and other organizations and individuals, has made exciting progress.



- The *Flora of Virginia* will be a one-volume manual for the identification of the 3,500 plant species native to or naturalized in Virginia. *Publication date is late 2012.*
- A contract for publishing the *Flora* was signed this summer with the BRIT press (Botanical Research Institute of Texas). The BRIT Press has published a number of floras and has an excellent reputation as a botanical research press.
- The manual will feature illustrations of 1,400 core species and 35 plates, as aids to identification. *More than 90% of the core illustrations are done.*
- The manuscript is almost complete, and copyediting will begin late this fall.
- Some \$1.15 million of the \$1.53 million project budget has been raised in direct and in-kind contributions.
- During the past year, the Project has received grants from Dominion Resources and the Marjorie Sale Arundel Fund for the Earth.

For information on making donations see: *Supporting the Flora of Virginia* on page 6.

In Memoriam: Thomas Orr Sitz

Past President Tom Sitz, age 65, of Blacksburg, Virginia died Tuesday, September 28, 2010 at Montgomery Regional Hospital. He was born in Newport, Rhode Island on December 9, 1944 to the late John Harry and Margaret McCullough Sitz. Dr. Sitz recently retired from Virginia Tech and was granted Professor Emeritus. He was Associate Professor of Biochemistry and Anaerobic Microbiology in the College of



"During his sixteen year struggle against cancer, Tom never allowed himself to have a bad day. He elevated the spirits of everyone in Biochemistry through his quiet courage, good humor, readiness to pitch in where needed, and deep commitment to the welfare of our students. He will be missed." — John Hess, Virginia Tech

Agriculture and Life Science and Director of Premedical Studies. He was the recipient of the Alumni Award for Excellence in Undergraduate Advising in 1982. Dr. Sitz was president of the Virginia Academy of Science in 1995-1996. He received a B.S. in Biology from Virginia Tech in 1967 and a Ph.D. in Biochemistry in 1971. Dr. Sitz received a prestigious post-doctoral appointment at Baylor College of Medicine in Houston, Texas under Dr. Harris Busch and was later appointed to a faculty position from 1971-75. He then was a member of the Chemistry Department at Old Dominion University in Norfolk, Virginia where he continued his research from 1975-82.

See page 6 for information on the Tom Sitz Memorial Student Award

Academy Fellow named Virginia Professor of the Year

On October 18, the Carnegie Foundation for the Advancement of Teaching and the Council for the Advancement and Support of Education celebrated the 2010 U.S. Professor of the Year Awards in Washington, D.C. Among the four U.S. Professors and forty-five State Professors honored was James P. O'Brien, Ph.D., Professor of Psychology at Tidewater Community College.

A U.S. Professor is selected for each of four types of institutions: baccalaureate colleges, community colleges, doctoral and research universities, and master's universities and colleges. State Professors are named from candidates in all four categories. "When you think of the richness of the professoriate among Virginia colleges and universities," Jim says, "it is both humbling and exhilarating to be recognized for your work in undergraduate teaching. It reminds you of all those great teachers you were lucky to have and how they influenced your life, your career, your attitudes towards students and education."

A Fellow and Past President of the Academy, Jim joined VAS in 1973. "Ray Kirby was Department Chair at nearby Old Dominion University and encouraged me to become a member. He was Chair of the Psychology Section and had been President of VJAS many years earlier, so his Academy roots ran deep. I've met so many dedicated researchers and teachers here over the years; they mentored me as much by their example as directly, and they were congenial to student as well as professional research. I'm sure I would not have done as much collaborative research with my TCC students had it not been for the Virginia Academy of Science."

Dr. O'Brien chaired the Psychology Section for three terms and became the Section's Representative to Council in 1978. In addition to chairing or serving on several VAS committees, he is founding editor of *Virginia Scientists* since 1990. "Past President Vera Remsburg was adamant about enhancing communication with the membership and promoted the idea of a newsletter to Council. I had edited local newsletters before for the Tidewater Chapter of the Human Factors and Ergonomics Society and that was sufficient enough for Vera to try to convince me to do ours. Vera was always a force to be reckoned with!"

The Carnegie Foundation-CASE U.S. Professors of the Year Awards Program recognizes faculty members for their achievement as teachers and seeks to increase awareness of the

importance of excellent undergraduate instruction at all colleges and universities. The Council for Advancement and Support of Education initiated the program in 1981. That same year the Carnegie Foundation for the Advancement of Teaching began hosting the final round of judging and became the primary sponsor of the program the following year. The 2010 awards are also supported by TIAA-CREF and Phi Beta Kappa and included a Congressional Reception at the Great Hall of the Folger Shakespeare Center.

Dr. O'Brien currently serves as the Academy's Delegate to the American Association for the Advancement of Science and the National Association of Academies of Science and Gov. Kaine appointed him, pursuant to Council's nomination, to fill the Academy's seat on the Board of Trustees for the Science Museum of Virginia. He is listed in the 2011 edition of *Who's Who in America*.



VIRGINIA SCIENTISTS is the newsletter of the Virginia Academy of Science and is published three times a year. In addition to members, it is also mailed to government officials, members of the General Assembly, and Virginia college and university presidents. Correspondence should be addressed to the Editor at: Tidewater Community College, 1700 College Crescent, Virginia Beach VA 23453, (757) 822-7447, FAX (757) 822-7171, jobrien@tcc.edu.

Editor.....James P. O'Brien
Associate Editor.....Missi Moore Thayer
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Position -- Title _____
Interest -- Section No.(s) _____ First no. indicates major interest
Contacted by: _____

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Membership in the Academy is organized into sections representing various scientific disciplines as follows:

- | | |
|--|---|
| 1. Agriculture, Forestry & Aquaculture | 10. Psychology |
| 2. Astronomy, Mathematics & Physics | 11. Education |
| 3. Microbiology & Molecular Biology | 12. Statistics |
| 4. Biology | 13. Aeronautical & Aerospace Sciences |
| 5. Chemistry | 14. Botany |
| 6. Materials Sciences | 15. Environmental Science |
| 7. Biomedical & General Engineering | 17. Computer Science |
| 9. Medical Sciences | 19. Natural History & Biodiversity |
| | 20. Structural Biology, Biochemistry and Biophysics |

Annual Membership Dues - Please check one. Includes subscription to *Virginia Journal of Science*

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| <input type="checkbox"/> Sustaining - Individual | 75.00 | <input type="checkbox"/> Business - Sustaining | 500.00 |
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Establishment of Thomas O. Sitz Memorial Student Award

When Thomas O. Sitz died in September, after a long battle with cancer, the Virginia Academy of Science and Virginia Tech lost a wonderful colleague and an inspirational friend. The Council of the Academy proposes to honor Tom by establishing a VAS Student Award in memory of his scientific work, his generous teaching, and his joyous spirit. We hope that Tom's colleagues and friends will feel this is a fitting recognition of what his life and example have meant to all of us. Just as Tom focused his energies on developing the next generation of scientists and science education, so, too, does this award seek to serve that noble purpose.

To assist the Academy in funding the Sitz Award, we request that you send your contributions to:

Dr. Arthur Conway, Executive Officer
Virginia Academy of Science
Science Museum of Virginia
2500 West Broad Street
Richmond, Virginia 23220

Checks should be made out to VAS, with "Tom Sitz Award" on the memo line.

SUPPORTING THE *FLORA OF VIRGINIA* PROJECT



You may support the Flora of Virginia Project with a gift of any amount. Donors of \$1,000 or more will receive a first edition copy of the *Flora of Virginia* with their names listed among those of other leadership donors. Please make your check payable to Flora of Virginia Project and mail it to:

Flora of Virginia Project ... P.O. Box 512
Richmond, VA 23218-0512

Call-For-Nominations

The Nominations and Elections Committee invites members to recommend candidates for the offices of President-Elect, Vice President, Secretary, or Treasurer. Contact Dr. Werner Wieland (Past President), Dept. of Biological Sciences, University of Mary Washington: 540-654-1426.

Information on officers' duties, nominations, etc. is in the Constitution, Article X and the By-Laws Article II & Article III, Section 10 ... Find in the "Index" at the Academy website: www.vacadsci.org

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2011 ANNUAL MEETING

89th VAS - May 25-27 / 70th VJAS May 24-26

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