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# Virginia Scientists

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Volume XVIII, Issue 2

April-May, 2009

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## 2009 Meetings at VCU

The 87th Annual Meeting of the Academy will be held at Virginia Commonwealth University, Richmond, on Wednesday afternoon through Friday, May 27-29, 2009. The 68th Annual Meeting of the Virginia Junior Academy of Science will be held May 26-28, 2009. 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. **If you can lend a hand in judging student paper presentations or scholarship awards in excess of \$120,000 ... Contact Susan Booth today! ... [susan-science@msn.com](mailto:susan-science@msn.com)**

### 2009 Special Meeting Events

**Kevin D. Whaley, M.D.**

**Office of the Chief Medical Examiner, Commonwealth of Virginia**

***VJAS Opening Lecture, Tuesday, May 26, 2009***

**“Postmortem Identification of Mass Disaster Victims”**

Dr. Whaley graduated with honors from the University of Arkansas for Medical Sciences in Little Rock and completed his anatomic and clinical pathology residency at the University of Rochester. After completing the forensic pathology fellowship at the Commonwealth of Virginia's Chief Medical Examiner's Office in Richmond, he remained as Assistant Chief Medical Examiner.

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## Nominations and Elections Committee

The Committee presents the following Slate of Nominees for the Academy offices (2009-2010) indicated.

### **President – D’Arcy P. Mays**

Dr. Mays received his Ph.D. in Statistics from Virginia Tech in 1993. He joined the faculty of Virginia Commonwealth University later that year as an Assistant Professor in the Department of Mathematical Sciences and was promoted to Associate Professor and tenured in 1999. In 2001 the Department of Statistical Sciences and Operations Research was formed at VCU and Dr. Mays was appointed chair.

Dr. Mays' research areas include response surface methodology, design of experiments, and regression analysis. Much of his research has focused on designs for processes that violate the typical assumptions associated with statistical procedures, primarily violations of the homogeneity of variance assumption. He has had papers published in the *Journal of Quality Technology*, *Journal of Statistical Computation and Simulation*, *Communications in Statistics: Simulation and Computation*, *Communications in Statistics: Theory and Methods*, and *Computational Statistics and Data Analysis*, and has a supplemental textbook that is used in the general education sta-

tistics course at VCU.

Dr. Mays also serves as chair of the University Appeal Board and chair of the Academic Regulations Appeals Committee. He is a member of the American Statistical Association, VCU representative to the Southern Regional Council on Statistics (SRCOS), and is president-elect of SRCOS. On two occasions he has organized and hosted SRCOS Summer Research Conferences.

D’Arcy has been a VAS member since 1993, served as Academy Treasurer from May 1996 to May 1997, was President of the Statistics Chapter from May 1995 to May 1996 and was Vice President of the Statistics Chapter from May 1994 to May 1995. In the community Dr. Mays is active with the Fellowship of Christian Athletes and in his church.

*(Continued, see “Nominees,” page 2)*

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## Nominees *(Continued from page 1)*

### President-Elect – Arun Verma

Dr. Verma has taught mathematics at the undergraduate and graduate levels for twenty-four years. In 2001, Hampton University president William R. Harvey appointed him Endowed University Professor of Mathematics. Dr. Verma earned his Ph.D. from the Indian Institute of Technology, Kharagpur, India in Mathematics. He has several refereed journal publications in the fields of fluid mechanics, controlled thermonuclear fusion, and instructional technology. He is dedicated to promoting interest in mathematics among students, teachers, and professors through his funded projects from the U.S. Department of

Education, State Council of Higher Education for Virginia, and Virginia Department of Education.

Arun has been listed in *Who's Who in America* and *Who's Who in Science and Engineering*, and is the recipient of the William C. Lowry Outstanding Mathematics Teacher Award, E. L. Hamm, Sr. Distinguished Teaching Award, Provost's Innovative Teaching Award, and the Excellence in Mathematics Teaching Award from Quality Education for Minority Network, Washington, D.C.

Dr. Verma coordinates the *MathCounts* competitions for middle school students of the Peninsula Region and administers annual math contests for the Hampton Roads Chapter of the National Technical Association; he is a member of executive board of Peninsula Council of Teachers of Mathematics. Arun has served the Academy as a Secretary and Treasurer and has been active in the Junior Academy for several years; he is a member of Sigma Xi.

### Vice President — Michael H. Renfroe

Dr. Renfroe is a professor of Biology at James Madison University. He received his Ph.D. from Yale University and, following a post-doctoral position at Texas A&M University, he has been teaching undergraduate and graduate courses at JMU since 1986. Dr. Renfroe is involved in not only teaching biology majors, but also non-science majors and students studying to become public school teachers with an emphasis in science and mathematics. Dr. Renfroe also continues to be involved in teaching in a regional Governor's School program.

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. He has involved many undergraduate and graduate students in his research and has mentored numerous high school students with their research efforts. Mike has been active in the Virginia Academy of Science since arriving in the state and is currently Secretary. He has served as Vice Chair and Chair of the Botany Section and on the Flora Committee and the Flora of Virginia Advisory Board.

### Secretary - Rodney J. Dyer

Dr. Dyer's research interests lie in understanding how genes move within and among populations and how the ecology of the local environment shapes the distribution of genetic variation within species. Rodney began working on gene flow in 1995 as a Howard Hughes Undergraduate Research Fellow studying recolonization dynamics of the Pacific lupine, *Lupin lepidus*, on Mount Saint Helens in Washington State. After graduating with a BS in Biology in 1996 from Western Washington University, he joined the laboratory of Dr. Victoria Sork at the University of Missouri – Saint Louis. His graduate work focused on developing and empirically testing models that allow the estimation of landscape-level pollen movement using the southern white pine, *Pinus echinata*.

As a post-doctoral researcher, he worked with Dr. John Nason at Iowa State University on post-Pleistocene range expansion in several Sonoran desert plants and their associated insects. Since fall 2004, Dr. Dyer has been an Assistant Professor in the Department of Biology at Virginia Commonwealth University. To date, Dr. Dyer has received three National Science Foundation Research Grants and has published 18 peer reviewed articles and book chapters. His current research projects focus on insect-mediated dispersal in the flowering dogwood, *Cornus florida* and phylogeography of plants and associated insects in Baja Mexico.

### Treasurer - Deborah A. O'Dell

Dr. O'Dell received her Ph.D. in Cellular and Developmental Biology from SUNY Stony Brook, and completed a post-doc in Neurophysiology from Cambridge University, UK. She is Associate Professor in the Department of Biological Sciences at the University of Mary Washington. Her research examines the cellular basis of behavior, and growth and function in the nervous system. She is particularly interested in the neural basis of magnetic navigation, and dimorphism in the nervous systems of honey bees.

Deborah teaches a variety of courses, including

*(Continued, see "Nominees," page 3)*

## Nominees *(Continued from page 2)*

neurobiology, developmental biology, cellular biology, comparative anatomy, human anatomy for majors, and human biology for non-majors. She mentors undergraduate research students in projects ranging from neurochemistry, neuronal development, and neurodegeneration to the cellular basis of learning and behavior. Her students have presented their findings at meetings of the Society for Neuroscience, (including the Faculty for Undergraduate Neuroscience session), Virginia Academy of Science and SYNAPSE (Society of Young Neuroscientists and Professors in the Southeast). She is also a member of the International Brain Research Organization and the International Society for Neuroethology, and is currently chair of the "Biology with Microbiology" section of the Academy which she previously served as vice chair and secretary. A member of VAS since 1993, Deborah has mentored student participants in the VAS Fall Undergraduate Conferences, has served as VAS session moderator and judge, and as judge for the Fall Undergraduate Research Awards.

## U.Va. Recognizes

### Past President Jim Murray

*The following article is reprinted with permission from The University of Virginia Magazine, Spring 2009.*

## Acre by Acre

Rangy and fit, Jim Murray looks the part of a man who has led a 40-year crusade for Virginia's wilderness. And this Brahmin in buffalo plaid knows the inner qualities it takes for success as well: "Patience and toughness, I'd say."

President of the Virginia Wilderness Committee in 1970 and again from 1999 until last summer, Murray, professor emeritus of biology at U.Va., has helped the committee's 250 members add public land to the National Wilderness Preservation System by passing a bill through Congress every 10 years or so.

Among their victories? The 1975 Eastern Wilderness Areas Act, adding 200,000 acres; the 1984 Virginia Wilderness Act, adding two areas in the George Washington National Forest and eight in the Jefferson National For

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## Annual Meeting Speakers *(Continued from page 1)*

### Dr. Whaley, M.D. *(continued)*

Dr. Whaley is a member of the American Academy of Forensic Sciences and the British Academy of Forensic Sciences. He is board-certified by the American Board of Pathology in Anatomic and Forensic Pathology. Dr. Whaley is particularly interested in postmortem identification. He was the Pathology Section Chief responsible for morgue operations and decedent identification for Hurricane Katrina. In addition to being a faculty member at the Virginia Institute of Forensic Science and Medicine, Dr. Whaley is a member of the faculty of the Department of Forensic Science at Virginia Commonwealth University.

**Sheldon M. Retchin, M.D., M.S.P.H.**

**Vice President for Health Sciences, Virginia Commonwealth University**

**Chief Executive Officer, VCU Health System**

***George W. Jeffers Memorial Lecture***

***Wednesday, May 27, 2009***

**"Necessity is the Mother of Invention: The Story of the SwiMP3"**

Dr. Retchin is Chief Executive Officer of the Virginia Commonwealth University Health System and Vice President for Health Sciences of Virginia Commonwealth University. As Vice President, he has responsibility for six health science schools: Medicine, Dentistry, Pharmacy, Nursing, Allied Health and Public Health. The six schools have a total enrollment of more than 4,000 undergraduate, professional and graduate stu-

dents. As CEO of the VCU Health System, he directs MCV Hospitals, a teaching hospital of more than

*(Continued, See "Annual Meeting Speakers," page 4)*

## ***Annual Meeting Speakers*** (Continued from page 1)

### **Dr. Retchin** (continued)

750 licensed beds with more than 650 post-graduate trainees in all medical and surgical specialties; the faculty practice plan; MCV Physicians, which includes approximately 600 faculty physicians; and two Health Maintenance Organizations (HMOs): Virginia Premier, with 130,000 enrollees and Carolina Crescent, an HMO in South Carolina with 25,000 insured enrollees.

Dr. Retchin received his undergraduate, medical, and public health degrees from the University of North Carolina at Chapel Hill, where he was also a Robert Wood Johnson Clinical Scholar. He was awarded the 2004 Distinguished Service Award by the UNC School of Medicine. Dr. Retchin is a practicing, board certified Internist, with additional qualifications in Geriatric Medicine. He is a national expert in health policy and health care delivery. Dr. Retchin is an avid swimmer and the inventor of the technology used for the SwiMP3™, an underwater MP3 music player that uses bone conduction to transmit music for swimmers. He holds the patent on the device with Dr. Martin Lenhardt of the VCU School of Engineering.

### ***Sidney S. Negus Memorial Lecture***

***Thursday, May 28, 2009***

#### **“WoundStat: From Bench to Bedside and Beyond”**

Dr. Kevin Ward is an associate chair and associate professor in the VCU School of Medicine’s Department of Emergency Medicine. He is the associate director for the VCU Reanimation Engineering Shock Center dedicated to enhancing survival from critical illness and injury. He directs its *Operation Purple Heart* program, one of the country’s largest civilian-led combat casualty care research programs. Dr. Ward serves as the site medical director for a program at VCU which assists in training half of the country’s special operation combat medics. He received his undergraduate degree in physiology from Louisiana State University and his medical degree from Tulane University School of Medicine. He completed a clinical residency in Emergency Medicine at the University of Pittsburgh.

Dr. Robert Diegelmann is a professor in the VCU School of Medicine’s Department of Biochemistry and Molecular Biology. He serves as a consultant for the FDA’s General Plastic Surgery Devices Panel of the Medical Devices Advisory Committee. He received his undergraduate degree in biology from Mt. St. Mary’s College and his Ph.D. in Microbiology from Georgetown University. He completed his post-doctoral work in biochemistry at the Laboratory of Physiology at the National Cancer Institute.

Dr. Gary Bowlin is an associate professor in the VCU School of Engineering’s Department of Biomedical Engineering and is the department’s assistant chair and graduate coordinator. He is the director of the Tissue Engineering Laboratory at VCU, which is comprised of a multi-disciplinary team of scientists working toward the goal of developing an “ideal” tissue-engineering scaffold. Dr. Bowlin received his undergraduate degree in chemical engineering from Youngstown State University and his master’s degree in chemical engineering from the University of New Hampshire. He earned his Ph.D. in biomedical engineering from the University of Akron.

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## NIH Announces the Availability of Recovery Act Funds for Administrative Supplements Providing Summer Research Experiences for Students and Science Educators

*Courtesy of Lynn Elfner, NAAS; CEO, Ohio Academy of Science*

See <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-060.html>

Opportunity for investigators and U.S. institutions/organizations with active NIH Research Grants to request administrative supplements for the purpose of promoting job creation, economic development, and accelerating the pace and achievement of scientific research. These supplements will also encourage students to seriously pursue research careers in the health related sciences, as well as provide elementary, middle school, and high school teachers, community college faculty, and faculty from non-research intensive institutions with short term research experiences in NIH-funded laboratories. Support for these supplements will come from funds provided to NIH through the American Recovery and Reinvestment Act of 2009. In addition, Recovery Act funds allocated to NIH specifically for comparative effectiveness research (CER) may be available to support supplements.

### Call for Nominations Fellow(s) and Honorary Life Member(s)

Deadline

October 1, 2009

For requirements and procedures,  
see Bylaws, Articles V and VI; go to

<http://www.vacadsci.org/constitution2.htm#bylaws>

This is one of three ARRA administrative supplement/competitive revision notices issued by NIH. Approximately \$1 billion of ARRA funds will be obligated by September 30, 2010 to support requests submitted in response to these three notices or any reissuance of these notices. Support may be requested for up to 2 years for qualified grants (see eligibility section).

The Recovery Act was signed into law by President Obama on February 17, 2009; it provides NIH with \$10.4 billion to be obligated over two years for a variety of biomedical research and research support activities. This administrative supplement opportunity is one part of the overall NIH Recovery Act investment strategy, as described at [www.hhs.gov/recovery](http://www.hhs.gov/recovery)

## Academy Seeks New *Virginia Scientists* Editor

... Your chance to make a  
difference for science in Virginia!

Call...

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**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](mailto:jobrien@tcc.edu).

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## **Jim Murray** (continued from page 3)

est; and the 2000 Virginia Wilderness Act, adding, Murray says, “two splendid mountains”—Three Ridges and the



Photo by Luca DiCecco

Priest.

A hiker, hunter, mountain climber and birdwatcher inspired by Sierra Club founder John Muir, Murray is propelled into the wild by “the idea of solitude, of getting away from civilization and being by oneself in the natural world.” He’s felt the hunger since childhood, when, with his father, founder of the Virginia Society of Ornithology, he explored forests around Lexington.

And there’s something a bit paradoxical, he knows,

about this idyllic vision and the political hurly-burly required to preserve it.

“Mainly, it takes education and negotiation” to secure wilderness, Murray says. “There’s the opposition of ignorance—people’s misperceptions that they won’t be able to hunt in the wilderness or go there at all—and opposition by design, from people who fear they’ll lose timberland or the possibility of gas and oil leases or mineral extraction.”

Crucial, then, are skillful alliances. Bipartisan support helps greatly, and former U.S. Sen. John Warner (Law ’53), a Republican, and 9th District Rep. Rick Boucher (Law ’71), a Democrat, have long been staunch wilderness advocates. Murray’s own closest ally is his wife, Bess. The two met as lab partners at Oxford, and, from his University days as an ecological geneticist researching land snails to his current advocacy, the pair have shared a passion for environmental activism—and a 40-acre Charlottesville homestead graced with a herd of cows and an 1830s home built by Jefferson-era architect Thomas Blackburn.

It’s from that sanctum that they tirelessly continue raising consciousness of the “greening of America.” “Whenever one bill passes,” he says, “we’re ready with another.”

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**2009 ANNUAL MEETING**  
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Virginia Commonwealth University  
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