



Volume 2,
Issue 2

November 2013

*What's going on in
the North Carolina
Academy of Science:*

- Letter from the new Membership Committee
- Annual Meeting Information
- Save the Date: Astronomy Days!
- Call for Yarbrough Proposals

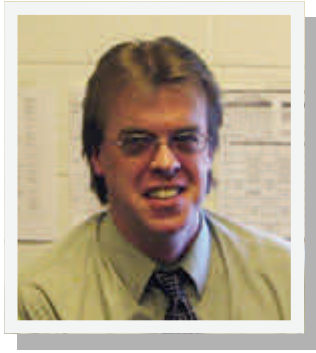
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From the Membership Committee

Report by: Mr. Scott Johnson, Wake Technical Community College

Greetings! My name is Scott Johnson and I am the chairperson for the Membership Committee for the NCAS. I wanted to take this moment to tell you about some of the exciting things going on at the Academy. For starters, our annual meeting in March 2014 will be held at the North Carolina State Museum of Natural Sciences. This is a unique venue and would be a great opportunity to bring along a colleague to introduce them to the academy!



We have ambitious goals and we need a strong membership in order to maintain the Academy and everything that it offers. The Academy is increasing its efforts to reach out to the community colleges for participation as we think this has been an area where we could be successful at reaching new members. But in order to increase our membership to where it needs to be, we are going to need everyone's help. When I was manning a booth at a local conference, I was struck by how many people mentioned that they had never even heard of NCAS! So please, take the time to mention your involvement in NCAS, the meetings, the workshops, the networking opportunities and how affordable it is. If any of your colleagues have any questions about the Academy, please send them my way and I'll be glad to help answer their questions and get them enrolled. If you want to help with the membership committee, please contact me: (stjohnson@waketech.edu).

Yarbrough Grant Applications

Yarbrough Grant application for 2014-15 is posted on the CANCAS website. There are also examples of successful proposals available. Recipients of the Yarbrough Grant are expected to present their work at the Annual NCAS meeting in 2015. Please see website for more details www.cancas.org.

2013 CASCAS Fall Workshop

The annual CASCAS Career and Research Workshop was held on November 9th, 2013 at Guilford College in Greensboro NC. This year the workshop brought together 46 students and faculty from academic institutions from across the state. Workshop events included concurrent sessions on research/internship opportunities, natural science/health science study abroad programs, and interview and presentation skills. In the afternoon, panel sessions comprised of students and professional school representatives provided participants with the opportunity to ask questions related to research experiences, strategies for entrance exam preparation and applying for graduate/professional school. CASCAS officers and the local organizing committee from Guilford would like to extend their thanks to all of the workshop participants and look forward to seeing everyone all at the Annual NCAS meeting in Raleigh in the spring!

Interested in Publishing a Short Communication?

The Journal of the North Carolina Academy of Science (JNCAS) is now accepting short communication papers. This format can include papers from students who present their work at the annual meeting of the Academy, from undergraduate research, and from the NCSAS state competition winners. These peer-reviewed papers should be no more than three printed pages in length and must be co-authored or sponsored by a senior member of the North Carolina Academy of Science. Additional information and submission guidelines are available on the NCAS website or in the Journal of the North Carolina Academy of Science.

DRAMATIC VISUAL DEMONSTRATION OF GLOBAL WARMING EFFECTS

Report by: Dr. Charlie Lytle, North Carolina State University

You need to see the 2012 Chasing Ice video! Every scientist and teacher should see this award-winning video that provides dramatic visual demonstrations of the effects of climate change in the retreat and decline of icebergs and glaciers. It shows results from continuing research in Alaska, Canada, Greenland, Iceland, and in the Rocky Mountains and the Himalayas as part of the Extreme Ice Survey established in 2007 by American scientist-photographer James Ballock. Some 43 specially designed cameras took time-lapse photos to document changes in the ice formations through time. The startling scenes in this video provide vivid visual images far more convincing to most people than data tables and graphs of the serious effects of climate change. The video is available from Amazon, Netflix, iTunes and other sources. I borrowed a copy from my local public library. Find more information at: <http://www.chasingice.com/>

NCAS Annual Meeting 2014

The 111th Annual Meeting of the North Carolina Academy of Science will be held at the North Carolina Museum of Natural Sciences in Raleigh, NC on Friday, March 28-Saturday, March 29th, 2014. This meeting will feature a significant gathering of scientists, graduate students and undergraduates from across the state. The Plenary Speaker is Dr. Randolph Nesse, a physician and evolutionary biologist currently at the University of Michigan. He is a Professor of Psychiatry and Psychology, a Research Professor in the Research Center for Group Dynamics in the Institute for Social Research, the Director of the Evolution and Human Adaptation Program, and President of the Evolution, Medicine, and Public

Health Foundation. He is the co-author of the book “Why we get sick” and will be speaking about evolutionary medicine. Dr. Rob Dunn, an Associate Professor of Biology at North Carolina State University, is the Keynote Speaker who will be talking about the integration of citizen science into his research. Dr. Dunn is a biologist and writer and has authored “Every living

thing” and “The wild life of our bodies.” We hope you will join us for another fantastic Annual Meeting!



Save the Date!

March 28-March 29th, 2014

The 111th annual NCAS conference will be held at the North Carolina Museum of Natural Sciences in Raleigh, N.C.

NCAS Annual Meeting: Call for Judges and Moderators

Report by: Dr. Michelle Malotky, Guilford College

We are seeking volunteers to serve as judges for research posters and oral presentations that are being considered for Derieux Awards for Research Excellence during the Annual Meeting of the North Carolina Academy of Science. The meeting will be held at the North Carolina State Museum of Natural Science in Raleigh NC on March 28th and 29th, 2014. Qualifying undergraduate posters will be presented and judged during the evening session on Friday, March 28th. Oral papers will be presented and judged on the morning of Saturday, March 29th. A grading rubric for the poster and oral papers will be provided and sent out to volunteers prior to the meeting. For more information on the Derieux Award please visit the CASCAS website: <http://www.ncacadsci.org/cancas/Derieux.html>.

We are also in need moderators for each of the oral paper sessions on Saturday. Moderators can be either faculty or students. Please contact Michele Malotky (mmalotky@guilford.edu) if you are willing to serve in either capacity. Include your area of expertise so that we can assign you to an appropriate section.

Featured Scientist: Kelsey Worthy, Undergraduate Researcher at Guilford College

Report by: Dr. Jessica McCann, Duke University

In each issue, we like to feature NCAS scientists at all stages of their careers. For this installment, we talked with a student scientist from Guilford College, Kelsey Worthy. Kelsey also has a special association with the Academy, as she is currently the secretary of CANCAS.

For Kelsey, it seems like becoming a scientist was unavoidable. Her dad has a Ph.D. in marine biology and shared his love of nature with his daughter. Kelsey said that she “grew up associating science with camping and catching frogs.” She has shaped that early enthusiasm for science into a declared biology major. When she started college, her original plan was to pursue field studies. But after taking a required semester of independent study that included intensive lab work, she started to feel at home at the bench. Working with Dr. Patricia Dos Santos off campus in the Chemistry department at Wake Forest University, Kelsey studies how an iron-sulfur cluster enzyme in the

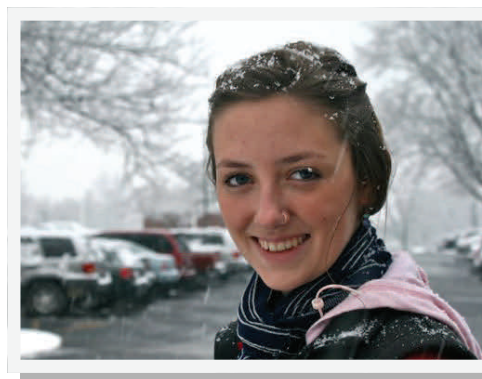
model organism *Bacillus subtilis* contributes to metabolic activity in this bacterium. Since this process also occurs in pathogenic bacteria, a better understanding of the bacterial iron-sulfur cluster formation pathway may pave the way toward new antibiotic drugs. While she finds the associated coursework challenging, Kelsey said, “I love the depth of the material and am continually finding it to be more relevant to my day-to-day than I anticipated.”

Kelsey has also conquered an important milestone in the career of a young scientist: presenting her research to the public. “Initially I found the notion of creating and presenting my poster to be intimidating, but ended up feeling proud of my work and enjoying my experience,” she said. “I appreciated the opportunity to explain my project to people with a large variety of background understandings, and the feedback I received was hugely valuable.” And as a member of CANCAS, she’s gotten the experience of planning meetings

and workshops, experience that will no doubt come in handy no matter what her future holds.

When asked about her future plans, Kelsey told us that she plans to stick with science. She’ll be graduating from Guilford in May, and is hoping to use her education toward a career in osteopathic medicine or physician’s assistant. In the short term, she wants to get hands on clinical experience and finish up her last few requisite courses in the spring.

Thanks for talking with us Kelsey, and good luck in your future endeavors!



NEXT ASTRONOMY DAYS SCHEDULED FOR JAN. 25-26, 2014

The annual Astronomy Days celebration at the NC Museum of Natural Sciences in Raleigh the past several years has been an important part of the academy's effort to encourage public interest in science and in highlighting the importance scientific issues of public interest. The exhibition, held in cooperation with NASA, is the largest event of its type in the country and brings thousands of people to the Museum each year. Our Academy exhibit at the event has engaged hundreds of children in science activities and informed them and their parents about climate change, natural gas ex-

ploration in North Carolina, nuclear energy, and other science-related matters of public interest. Volunteer members of the academy, aided by the students from Collegiate and Student branches, have contributed to varied exhibits featuring academy programs, science activities for children, and information on important science issues. These efforts have gained important attention for the academy as an important source of science information and strengthened our support of science education.

We need volunteers to help with Astronomy Days, scheduled this year for Sat-

urday and Sunday, January 25 and 26. Further details will be provided in later newsletters and information is also available from Charles Lytle at 919-389-1845 or lytle_bio@ncsu.edu.

JNCAS Moving to Online Submission!

The Journal of the North Carolina Academy of Science (JNCAS), announces our multidisciplinary focus for all types of research relevant to North Carolina. We are especially interested in research conducted in North Carolina and neighboring states, or by North Carolina researchers. We will begin accepting manuscripts for publication online through Allen Press PeerTrack™ beginning January 1, 2014. All manuscripts must be submitted as outlined in JNCAS or on the North Carolina Academy of Science website (www.ncacadsci.org). After this date, hard copies of manuscripts will no longer be accepted.

Job Openings in the Scientific Community

For more information on how to apply, go to <http://www.ncacadsci.org/NCAS/jobOpportunitiesRegistration.html>

1. 13th Annual North Carolina PhD Job Fair, Nov 21 12-4 PM, at The UNC Friday Center

To register: <https://sites.google.com/site/ncmastersphdfair/>

The North Carolina PhD Fair is a collaboration between Duke, NCSU, UNC-Chapel Hill, UNC-Charlotte, UNC-Greensboro, and Wake Forest University to showcase their advanced degree candidates in all disciplines. Attending employers hire PhDs with expertise in the sciences, engineering, social sciences and humanities. For a list of attending employers, visit <https://sites.google.com/site/ncmastersphdfair/>.

2. NC State Assistant Professor, Global Environmental Change and Human Well-Being

We are currently hiring one Assistant Professor in the Department of Biological Sciences to complete this cluster of three faculty. We seek leaders in any area of evolutionary biology or ecology under this theme. Although we are targeting an Assistant Professor, exceptional applicants at the Associate or Full Professor rank will be considered. Review of applications will begin 1 November 2013 and continue until the position is filled.

3. Assistant or Associate Professors of the Practice, Duke Kunshan University, China

The Duke Global Health Institute (DGHI) and Duke Kunshan University seek two Assistant or Associate Professors in the practice track, to teach at both the graduate and undergraduate levels in the global health curriculum to be established at Duke Kunshan University (DKU) in Kunshan, China. Successful candidates will be Duke Kunshan University faculty members and may be eligible for an appointment at Duke University. **Deadline to apply:** Review of applications will begin Dec 10, 2013, and will continue until the positions are filled.

4. Assistant Professor (Biology), Elon University, Elon NC

Elon University seeks an invertebrate biologist for a tenure-track position in Biology at the Assistant Professor level beginning in mid-Aug 2014. **Deadline to apply:** Jan 2, 2013.

5. Assistant Professor (Mathematics), Guilford College, Greensboro NC

Guilford College, a private Liberal Arts college founded by members of the Society of Friends, invites applications for a tenure-track position in Mathematics beginning August 2014.

6. Analytical Chemist, Experis, Greenville NC

7. Associate Scientist II (Biotechnology), Hays Recruiting, RTP NC

Our client, a global leader in biotechnology, is seeking a scientist with a chemistry background for a nine month contract in Research Triangle Park, NC.

8. Senior Scientist (Bioassay Development & Protein Characterization), Biogen Idec, RTP NC

Biogen Idec Analytical Development (AD) is searching for an experienced biologist to join its method development and testing group. The successful candidate will be responsible for managing programs for the development of accurate and robust assays for assessing potency of drug candidates and quantitating impurity levels in drug candidates.

9. Acquisitions Editor (Interdisciplinary Humanities), Michigan Publishing, University of Michigan, Ann Arbor MI

Michigan Publishing (www.publishing.umich.edu/) is the chief academic publishing entity of the University of Michigan, administered by the University of Michigan Library. Michigan Publishing seeks a talented and creative acquisitions editor for the University of Michigan Press, specializing in interdisciplinary humanities, who will report to the Editorial Director and be responsible for acquiring and developing major scholarly titles.

10. Assistant Director of Graduate Student Programs, Kaneb Center for Teaching and Learning, University of Notre Dame IN

The Kaneb Center for Teaching and Learning at the University of Notre Dame is seeking applications for an Assistant Director of Graduate Student Programs. As a member of the Kaneb Center's team, the Assistant Director will coordinate the Center's Graduate Student Programs and work closely and collaboratively with the Director and staff on all aspects of the Center's mission. This work will include contributing to the Center's existing programs (e.g. workshops, presentations, and consultations with faculty and graduate students), representing the Center on the Graduate School Professional Development Team, and participating in the conception and development of new initiatives central to the Center's mission.

11. Associate/Assistant Director, Center for Teaching and Faculty Excellence, George Mason University, Fairfax VA

The George Mason University, Office of the Provost and Center for Teaching and Faculty Excellence (CTFE) invites applications for an Associate/Assistant Director of the CTFE, commensurate with experience. This position will play a key role through providing leadership and support for the activities and mission of the CTFE.

12. Assistant or Associate Professor (Microbial Biochemistry and Biotechnology), University of Minnesota BioTechnology Institute, Minneapolis MN

The University of Minnesota announces hiring for an interdisciplinary research cluster focused on the use of bioremediation to conserve the environment and advance industry.

13. Career & Postdoc Services Program Coordinator, Scripps Research Institute, La Jolla CA

The Scripps Research Institute (TSRI) is currently seeking a Career and Postdoc Services Program Coordinator for its California facility.

14. Communications Counselors (Health/Science), Russo Partners, New York NY

Russo Partners is expanding its team of health/science communicators in New York City. We are looking for one or two high-energy individuals who can complement our current line-up of PhDs, MDs and MBAs. No communications experience is required.

15. Computational Scientist (Advanced Computational Environments), Dynamics Research Corporation, Vicksburg MS

Provide on-site support to DoD High Performance Computing (HPC) users in the Advanced Computational Environments (ACE) Cross-cutting Computational

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16. Consultant (Health Care Research and Insights), Advisory Board Company, Washington DC

The Advisory Board Company (NASDAQ: ABCO) is a global research, consulting, and technology firm helping hospital and university executives to better serve patients and students. We provide strategic guidance, actionable insights, web-based software solutions, and comprehensive implementation and management services.

17. Consultant (Higher Education Research), Education Advisory Board, Washington DC

The Education Advisory Board is the Advisory Board Company's higher education practice, with membership programs serving Chief Academic Officers, Chief Business Officers, Student Affairs Executives and Community College Presidents at institutions in the United States, Canada and the U.K. Our research focuses on the university's most pressing quality and productivity issues, performing rigorous root cause analysis and conducting hundreds of interviews with thought leaders to identify effective best practices that are shared with the membership through a series of national roundtable meetings, on-site workshops, webinars and publications.

18. Faculty/Instructional Developer, Walker Center for Teaching & Learning, University of Tennessee at Chattanooga TN

The Faculty/Instructional Developer supports the Walker Center for Teaching and Learning functions, including working in a variety of ways to improve teaching, learning, and student engagement. The position is a 12-month, exempt position that reports to the Director of the Walker Center for Teaching & Learning.

19. Instructional Design and Technology Specialist, Harvard Kennedy School, Cambridge MA

The Instructional Design and Technology Specialist plays a key leadership role in the development and delivery of high quality, high impact technology-enhanced learning experiences.

21. Johns Hopkins Summer 2014 Teaching Opportunities (Genomics & Genetics), Center for Talented Youth, Baltimore MD and Carlisle PA

Center for Talented Youth (CTY) offers challenging academic programs for highly talented elementary, middle, and high school students from across the country and around the world. We are currently seeking individuals with expertise in the following courses: Genomics (Locations: Baltimore, MD); and Genetics (Locations: Baltimore, MD and Carlisle, PA).

21. Principal Scientist/Senior Principal Scientist (Research), Pfizer Inc, Groton CT

22. Scientist, Analytical Chemist, The Coca-Cola Company, Apopka FL

The Coca-Cola Company is seeking a Scientist, Analytical Chemist with strong background in advanced analytical chemistry and mass spectrometry.

23. Senior Biostatistician, INC Research, Any INC Office in US

24. Senior Instructional Designer, Geisinger Health System, Danville PA

The Senior Instructional Designer is responsible for applying instructional design principles to plan, develop, deliver, coordinate, and execute a wide variety of technical, administrative, professional, and leadership development training and supporting materials for Human Resources through multiple delivery methods such as e-learning, instructor-led training, web-based learning, blended learning, assessments, print-

based materials, graphics, and job aids.

25. Senior Research Scientist (Structural Biology), Eli Lilly and Co, San Diego CA

The Discovery Chemistry Research & Technologies organization within Lilly Research Laboratories is seeking a highly skilled scientist to join the structural biology group based in San Diego.

26. Multiple Positions (HBV & HIV Antiviral Therapeutics), Novira Therapeutics, Philadelphia PA

There are multiple PhD-level positions available at Novira Therapeutics. Novira Therapeutics is an antiviral drug discovery company that is focused on the discovery of first-in-class antiviral therapeutics for the treatment of chronic HBV and HIV infections, two global diseases with high levels of unmet need.

27. Senior Researcher, Sightline Institute, Seattle WA

Sightline Institute, the Pacific Northwest's sustainability policy center and the region's largest progressive think tank, is seeking to add a proven star to its roster of sustainability thinkers, writers, and analysts. We are seeking a candidate who will help Sightline broaden its expertise by exploring issue areas new to the organization. Examples of issue portfolios that interest us include, but are not limited to: environmental justice; social equity and inclusion; environmental education; water use and water quality; endangered species and threatened habitats; population; gender equality; food systems; toxics and pollution; reforming criminal justice, healthcare, and education; and reclaiming democracy.

28. Senior Scientist (Biology/Chemistry), University of Notre Dame, Notre Dame IN

The Senior Scientist is a critical component of a multi-disciplinary team that generates gene-altered mice and bacteria, and genetically altered proteins in order to study proteins and pathways involved in hemostasis, inflammation, infection, and cancer.

29. Senior Scientist (Biomarker Bioanalytical), Pfizer Inc, Groton CT

31. Senior Scientist/Principal Scientist (Drug Product Process), Pfizer Inc, Groton CT

32. Senior Scientist/Principal Scientist (Research Formulations), Pfizer Inc, Groton CT



The North Carolina Academy of Science
Meredith College Department of Biological Sciences, 3800 Hillsborough St., Raleigh, NC 27606-5298

Phone: 919-760-8189
Fax: 919-788-0956
ncacadsci@email.meredith.edu

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Check us out on the web!
<http://www.ncacadsci.org/home.html>

The **objective** of the North Carolina Academy of Science is to *encourage the advancement of science within the state of North Carolina by promotion of scientific research and by the fostering of education in the sciences*". The North Carolina Academy of Science meets these objectives by...

- Publishing a peer reviewed scholarly journal, the *Journal of the North Carolina Academy of Science*.
- Fostering and encouraging student involvement in the sciences through support of the Collegiate (CANCAS) and Student Academies (NCSAS).
- Promoting interactions among scientists and students throughout North Carolina.
- Providing a forum for exchange of ideas for solving issues important to North Carolina.

The Academy members include individuals from academia, industry, government, and all others who support the objectives and goals of the Academy.

North Carolina Academy of Science

Our Mission

The North Carolina Academy of Science promotes public appreciation of science, science education, scientific research and a meaningful role for science in public policy.

Our Goals:

Promote public appreciation of science

- Partnership with Science Centers
- Public Lecture Series
- Newsletter

Promote science education

- NCAS Webpage
- Academic Lecture Series
- NCAS Publications: Journal, Educational Publications
- Student Academy - Middle & High School

Promote scientific research

- Yarbrough and Bryden Research Grants
- CANCAS Undergraduate Research Workshop
- Presentation Opportunities at Annual Meetings

- Journal of the North Carolina Academy of Science

Promote science in public policy

- Symposia
- News Releases
- Position Statements
- Interactions with Public Officials

