



Spring/Summer 2013 eNEWSLETTER

From the Dean

This will be the last edition of the Science Connect eNewsletter that you will receive from me as Dean of the Charles E Schmidt College of Science. As I told you in the Summer/Fall, 2012 edition, I step down as dean as of June 30, 2013. Dr. Ingrid Johanson, Senior Associate Dean (johanson@fau.edu), will take over as Interim Dean on July 1, 2013 while an internal search for an Interim Dean takes place. The search for a permanent dean for the Charles E Schmidt College of Science will resume in late summer/early Fall, 2013. It has been my privilege and honor to serve as dean for the past seven years and I am very proud, as I am sure you are, of the achievements of the faculty and students in our College during the past seven years. It is their exploits that are deservedly chronicled here. With this edition of our eNewsletter we continue with the new format started with the Winter 2012 edition that mimics our science blog – Science News – found on our College’s web page and also on our College’s Facebook page. I hope that you have been following the news and events in our College by regularly visiting these sites (past editions of Science Connect at <http://www.science.fau.edu/newsletter/index.html>). As always, I invite you to contact us for any additional information that you would like about the College, or to send an email to lsargent@fau.edu to let us know your recent exploits.

Science News

The Charles E. Schmidt College of Science Graduate Association hosted its first Annual Award Banquet on June 1, 2013. Awards were made to those winners of the peer judging competition from the College Research Day held on March 22, 2013. They were: Jake Lasala (Biological Sciences), Timothy Foo (Chemistry and Biochemistry), William Hahn, (Complex Systems & Brain Sciences), Caitlin Boverly (Environmental Sciences), Michelle Chrpa (Geosciences), Parshuram Budhathoki (Mathematical Sciences) Casey Curley (Physics) and Shrija Dirghangi (Psychology), Master of Ceremony was Michael Hurley (Mathematical Sciences). President of the Graduate Association is Brandon Langenberg (Mathematical Sciences) who can be contacted about membership at CSGA@fau.edu.

May 2013

Congratulations! to the following faculty members in Science who were promoted to Full Professor - Dr. Nwadiuto Esiobu & Dr Dale Gawlik (Biological Sciences), Dr Markus Schmidmeier (Mathematical Sciences); and promoted to Associate Professor with tenure - Dr. Elan Barenholtz (Psychology), Dr. Xavier Comas, Dr. Scott Markwith & Dr. Tara Root (Geosciences) and Dr Lyndon West (Chemistry and Biochemistry).

Dr. Ingrid Johanson (Senior Associate Dean) together with faculty, staff and students - many of them undergraduate students - hosted the first ever Elementary School Science Olympiad on Saturday May 11, 2013 on the Boca Raton Campus. Over 140 elementary school students from six local elementary schools, with their teachers and parents, participated in science competition through various experiments demonstrating scientific knowledge and principles such as Egg Drop, Water Rockets and Anatomy. This new Olympiad builds on a strong tradition developed over the past six years of the South East Regional Science Olympiad for middle and high school students held in the College each Spring. Pine Crest Preparatory School finished first place overall, followed by Manatee Bay

Elementary in 2nd place and Archimedean Academy in 3rd place. Winning teams received complimentary tickets donated by the Miami Heat.

Dr. Tomas Schonbeck and Emily Cimillo (Mathematical Sciences) with other faculty and staff of the Mathematical Sciences department hosted the annual Mini-Math day for elementary school students on May 7, 2013. Over 150 4th Grade students from Hidden Oaks Elementary School in Lake Worth participate. Each year, one grade level from one elementary school from either Palm Beach or Broward counties is selected to participate.

Dr. Gene G. Kinney (Psychology Alumni) was inducted in to the FAU National Alumni Association Hall of Fame at the Annual Alumni Ceremony on May 1, 2013 and received the Hall of Fame Award from President M.J. Saunders at the Charles E Schmidt College of Science Commencement at 5pm today. Dr. Kinney hold an MA '92 and a PhD '94 from FAU.

Dr. Donna Chamely-Wiik (Chemistry and Biochemistry) received the Distinguished Alumni of the Colleges Award at the Annual Alumni Ceremony for the Charles E. Schmidt College of Science. Dr. Chamely-Wiik holds BS '98, MS '00 and PhD '04 degrees from FAU.

April 2013

April 30, 2013 Dr. Xavier Comas (Geosciences) has been awarded \$347,942 from the National Oceanic and Atmospheric Administration (NOAA) for research related to multi-scale characterization of carbon flux dynamics and biogenic gas distribution in the Florida Everglades.

Dr. Cyril Parkanyi (Chemistry and Biochemistry) passed away at 8:45am on April 26. Dr. Parkanyi served with distinction as Interim Chair of the Department of Chemistry and Biochemistry, and served as Chair of the department from 1989-1994. Our heartfelt condolences go to his wife Marie, and Son Michael. A tribute to Dr. Parkanyi forthcoming.

Dr. Donna Chamely-Wiik (Chemistry and Biochemistry) and Dr. Leonard Berry (Geosciences and FCES) were recognized for their leadership roles at FAU at the Employee Service Awards held on April 15, 2013. They each received the President's Leadership Award from President M.J. Saunders.

Danielle Howard and Samantha Amat, seniors in the Charles E. Schmidt College of Science, placed first and second respectively for poster presentations at the inaugural Life Sciences South Florida (LSSF) STEM Research Symposium. Howard was awarded first place for her poster titled, "Effects of Anoxia on Methionine Sulfoxide Reductase (Msr) Deficient Drosophila," and Amat was awarded second place for her poster titled, "Exploring the Role of Semaphorin 7A in Monocyte Chemo Attraction in a Breast Cancer Model."

Dr. Ken Dawson-Scully (Biological Sciences) and FAU entered in to licensing agreement with Eco Neurologics Inc., a start-up company based on his discoveries that blocking certain signaling pathways in cells afforded a protective effect on those cells that might otherwise die following, for example, a stroke.

Dr. Nwadiuto Esiobu (Biological Sciences) was awarded the 2013 World Class Faculty Award by the Greater Fort Lauderdale Alliance for Economic Development.

Donella Beckwith (Chemistry & Biochemistry) who is a student in our Chemistry program was selected to receive this year's University Scholar Award for FAU's Charles E. Schmidt College of Science.

Dr. Tara Root (Geosciences) received the Award for Excellence and Innovation in Undergraduate Teaching for 2013 in recognition of her outstanding performance.

Dr. Erika Hoff (Psychology) was appointed as a member to the Language and Communication Study Section of the NIH. Members are selected on the basis of their demonstrated competence and achievement in their scientific discipline.

Shreyasee Chakraborty and Bibiana Sandoval-Bernal (Biological Sciences) were recognized at the 77th Annual Meeting of the Florida Academy of Sciences held at Barry University with the Outstanding Graduate Student Poster Paper by the Medical Sciences Section of the Academy. The research was conducted under the mentorship of Dr. James Kumi-Diaka..

Dr. Gerald Cuomo (Preprofessional Studies) and his very successful course for pre-dental students was highlighted in the recent America Dental Association newsletter.

March 2013

Dr. Xavier Comas (Geosciences) was named FAU's Researcher of the Year at the Assistant Professor level by President Saunders following a recommendation by the University Research Committee. Comas is an Environmental Geophysicist whose field of specialization is environmental hydro-geophysics with an emphasis on wetland studies.

College Research Day was a huge success with 64 student poster presentations highlighting their research. Previously, this event involved primarily graduate students and their research, but this year, and going forward, the event included undergraduate students doing research. The inclusion of undergraduates in College Research Day supports the university's QEP – Distinction through Discovery.

Elaine Walker delivered the final Spring semester Frontiers in Science Public Lecture on Friday March 8, 2013. Ms Walker is an electronic music composer and performer who also teaches courses on electronic music and computer-based sound synthesis at Scottsdale Community College and Collins College. The title of her talk was "Microtonality: The New Frontier of Music."

Dr. Paul Ekman, the internationally renowned psychologist, gave the Frontiers in Science Public Lecture on Friday, March 1, 2013. Ekman has been named one of the most 100 influential psychologists of the 20th century by the American Psychological Association. The title of his lecture was "Emotion for Improving General Life" and Ekman described how to develop skills that allow people to choose when and what they become emotional about. This lecture was co-sponsored FAU's College of Education. The last Frontiers in Science Public Lecture for Spring, 2013 will be on March 8, 2013.

Dr Fred Hoffman (Mathematical Sciences) organized the 44th Southeastern International Conference on Combinatorics, Graph Theory and Computing that took place from March 4 – 7 in the Palm Room of the Student Union on FAU's Boca Raton Campus. For details see <http://math.fau.edu/cgtc/cgtc44/>

February, 2013

Dr. Ingrid Johanson (Sr. Associate Dean) and her dedicated team of faculty, staff and students hosted the Southeast Regional Science Olympiad for a 5th time on Saturday, February 16, 2013. There were 32 schools and nearly 500 hundred middle and high school students from schools across south Florida who participated in the day long events that's included anatomy and physiology, astronomy, designer genes, building robots, chemistry lab, remote sensing, water quality and many other science projects.

Dr. Leonard Berry (Florida Center for Environmental Studies and Geosciences) delivered the Frontiers in Science Public Lecture on February 15, 2013, at 3:30pm in BC126 located in the Charles E Schmidt biomedical Sciences Center. The title of his lecture is "Sea Level Rise in South Florida: What does it mean for You and Your Community?"

Dr. Gary W. Perry (Dean of Science) was an invited panelist/speaker at the recent breakfast meeting “ A Conversation with Dr. Pasi Sahlberg, Director-General of the Centre for International Mobility, Ministry of Education and Culture, Helsinki, Finland” held on February 7, 2013 at Palm Beach State College in Boca Raton. Dr. Sahlberg spoke about the changes in the Finnish K-12 educational system over the last three decades that has resulted in Finland rising to the top of international student achievement in reading, math and science.

Dr. Gibor Basri, (University of California, Berkeley) delivered the Frontiers in Science public lecture entitled “NASA’s Hunt for Earth 2: Kepler’s Shower of Planets!” Basri is a co-investigator of NASA’s Kepler mission that uses the space telescope, ‘Kepler,’ launched in March 2009 to search for terrestrial planets around other stars.

Dr. Caiyun Zhang (Geosciences) paper entitled “Zhang, C., and F. Qiu, Mapping Individual Tree Species in an Urban Forest Using Airborne Lidar Data and Hyperspectral Imagery, PE&RS, 78 (10), 1079-1087” won the First Place of 2013 ERDAS Award for Best Scientific Paper in Remote Sensing.

January, 2013

The College of Science Graduate Association is a newly formed club for graduate students in our college! Like us on [Facebook-FAU Science Graduate Programs](#) for announcements of future events and to see pictures from our Stargazing Event held on January 25, 2013 at the FAU Observatory. For more information about the club contact us at CSGA@fau.edu.

Dr. Brian Benscoter (Biological Sciences) elected as the next Chair of the Biogeochemistry Section of the International Society of Wetland Scientists and will take up this position at the Society’s Annual Meeting in Duluth, MN, June 2-6, 2013.

Glenn Coldren (Biological Sciences), a doctoral candidate in Integrative Biology at Florida Atlantic University working with Dr. Ed Proffitt, invited to speak before an ecology research group at Utrecht University in that country. Glenn’s research focuses on the effects of climate change on the region’s mangroves and their relationships with salt marshes. A report of his research and his trip appeared in the Palm Beach Post on January 24, 2013.

Dr. Edward Large (Complex Systems & Brain Sciences and Psychology) elected to serve as the President of the [Society for Music Perception and Cognition](#) for 2014-15. Ed Large’s research areas include nonlinear dynamical systems, auditory neuroscience, and music psychology. He uses theoretical modeling in conjunction with behavioral, neurophysiological and neuroimaging techniques to understand how people respond to complex, temporally structured sequences such as music and speech.

Dr. Lisa McElwee-White, Professor of Chemistry in the Department of Chemistry and Center for Nanostructured Electronic Materials at the University of Florida presented the Frontiers In Science Public Lecture on Friday, January 25, 2013 at 3:30pm in Rm 126 in the Biomedical Sciences Center, BC71. The title of the talk is “The Chemistry of New Materials for Computer Chips.”

Dr. Nancy Jones (Psychology), Dr. Daniel de Lill (Chemistry & Biochemistry), Dr. Monica Rosselli (Psychology), Dr. Robert Stackman (Psychology), Dr Bill Louda (Chemistry & Biochemistry) and Dr. Xing-Hai Zhang (Biological Sciences) awarded Seed Grants from the Division of Research at FAU.

Dr. Edward Petuch (Geosciences) kicked-off the Frontiers in Science Public Lecture Series for the Spring 2013 semester. Petuch’s title is “Mollusks of the Tropical Western Atlantic: New Perspectives on Biogeography and Biodiversity.” The lecture will take place on Friday, January 11 at 3:30 p.m. in Room 126 in the Charles E. Schmidt Biomedical Sciences Center, 777 Glades Road, Boca Raton campus.

Dr. Robin Jordan, Professor Emeritus (Physics) delivered a Life Long Learning Society course entitled “Famous scientists and their less well-known books” on Wednesdays at 3:45pm-5:45pm starting January 30th through March 6th 2013 at the Life Learning Complex on the Mac Arthur campus in Jupiter.

December, 2012

Dr. Herbert Weissbach (Center for Molecular Biology and Biotechnology) elected as one of the Charter Fellows of the National Academy of Inventors who represent 54 prestigious research universities and non-profit research institutes. Included in the Charter class are eight Nobel Laureates, two Fellows of the Royal Society, 12 presidents of research universities and non-profit research institutes, 50 members of the National Academies (National Academy of Sciences, National Academy of Engineering, Institute of Medicine), 11 inductees of the National Inventors Hall of Fame, three recipients of the National Medal of Technology and Innovation, four recipients of the National Medal of Science, and 29 AAAS Fellows, among other major awards and distinctions.

Helen Randall (Mathematical Sciences and Dean's Office) recognized by the University and United Way as this year's Outstanding UW Coordinator at FAU at a breakfast reception hosted by President M.J. Saunders. Under Helen's leadership, the college team, made up of staff and students, generated the greatest number of contributions in the university's UW Fall campaign at FAU. In the picture attached, Ms. Toni Somma, Campaign Manager of United Way of Palm Beach and Mr. Chuck Anderson, CEO of United Way of Palm Beach are shown with student and staff members of the College UW Team.

Dr. Jeanette Wyneken (Biological Sciences) honored by the Board of Trustees of Friends of Gumbo limbo at the 4th Annual Sea Coast Toast, held at the Spanish River Library, Boca Raton for her dedication to research and conservation of Marine and Coastal environments.

November, 2012

Dr. Yuan Wang (Mathematical Sciences) named an IEEE Fellow (Institute of Electrical and Electronics Engineers) for contributions to stability and control of nonlinear systems . The IEEE Grade of Fellow is conferred by the IEEE Board of Directors upon a person with an outstanding record of accomplishments in any of the IEEE fields of interest. The IEEE is the world's leading professional organization for advancing technology for humanity, and a leading authority on a wide variety of areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics (see www.ieee.org).

Alex Lolavar, a senior in Biological Sciences, explained her turtle research with Dr. Jeanette Wyneken at the Gumbo Limbo Marine Science Lab on **FAU's Student Scholarship Spotlight** (see video). Alex is the recipient of an NSF Undergraduate Research Mentoring grant, a nationally funded scholarship program directed by Dr. Rod Murphey (Chair) in the Department of Biological Sciences.

Helen Randall (Dean's Office and Math Department) and her United Way Team put our College out in front (again) in total donations of any unit across the University in this year's United Way Campaign--154! The university as a whole raised a total of \$58, 607.75 from 512 donors. Congratulations to Helen and her UW Team of College Staff and Students that included: Soraya Phanord, Brad Deokisingh, Andrew Oliver, Priscilla Michel, Chris Spence, Obed Louis, Cynthia Berman, Paula Bloch, Debra Little, Susan McDonough, Susan Prince, Tarra Smith, Zia Smith, Jennie Soberon, Helena Szczesny, Beth Broer, Rebecca Dixon and Rhona Frankel.

Dr Steven Bressler (Complex Systems & Brain Sciences and Psychology) and colleagues published the results of their recent research in the most recent edition of the prestigious journal Science. The article reports using simultaneous recordings of neural activity from multiple areas that shows widespread, task-dependent, and content-specific synchronization of activity across the fronto-parietal network during visual working memory. "The Holy Grail of neuroscience has been to understand how and where information is encoded in the brain. This study provides more evidence that large scale electrical oscillations across distant brain regions may carry information for visual memories," said NIMH director Thomas R. Insel, M.D.

Dr. Ingrid Johanson (Dean's Office), as were many students at FAU, interviewed by Channel 12 WPB regarding the Gov. Rick Scott's proposal to charge lower tuition for those students majoring in the STEM disciplines.

Dr. Jeanette Wyneken (Biological Sciences) and Kate Mansfield's (US National Marine Fisheries Service) research appeared as a lead story in the November edition of *The Scientist*. The research involves tracking loggerhead turtles during the oceanic phase of their lives, that is from the time they leave nesting beaches as hatchlings until they move back to near-shore habitats some years later.

October, 2012

The Physics Department once again demonstrated the principles of physics to elementary school students at its 6th annual Pumpkin Drop and Physics Carnival outside the Science building, SE43 on the Boca Raton campus. The carnival starts at 10:30am with the Pumpkin Drop at 12:45pm.

Dr. Armin Fuchs (Complex Systems & Brain Sciences and Physics) published a new book "Nonlinear Dynamics in Complex Systems: Theory and Applications for the Life-, Neuro- and Natural Sciences." With many areas of science reaching across boundaries and becoming more and more interdisciplinary, students and researchers in these fields are confronted with techniques and tools not covered by their particular education, and this book does just that. Available from Springer, September 23, 2012 (2013 Edition).

Dr. Daniela Popova (Mathematical Sciences) and FAU host Group Theory, Combinatorics and Computing Conference at the Holiday Inn, Highland Beach from Wednesday October 3 through Monday October 8th 2012. Participants include an international group of mathematicians and scientists, and is supported by the American Mathematical Society, the Association of Women in Mathematics, the Institute of Combinatorics and the Davimos Family Foundation.

We welcome your comments and suggestions on this and future issues. Please send any feedback to Lynn Sargent at lsargent@fau.edu.