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STUDENT SPOTLIGHT

Not many middle school students spend their free time at the local public library teaching children how to read, but then again, **John Sousa** wasn't your typical sixth grader. By the time he left Deerfield Beach Middle School, he had already completed all of his high school classes online. It was the same story again at Commencement on April 30th.

Sousa, 17, graduated from Florida Atlantic University on Thursday with a bachelor's degree in neuroscience and behavior *magna cum laude*. He will have a college degree before he even graduates from FAU High School on Thursday May 7.

After finishing his high school classes by eighth grade, he knew he needed a high school with an unusual curriculum, and that's how he ended up at FAU High.

"It really gives students several opportunities at a younger age," he said. "All of us have a lot in common. It's a collegiate environment and it fosters camaraderie."

In the fall of 2012, Sousa began taking psychology classes at FAU because he had always been fascinated by human behavior. The classes sparked an interest in biology and neuroscience, and eventually led him to research.

"Research really taps into both the intellectual creativity and the analytical side of me," he explained. "I love being able to contribute to scientific knowledge."

Sousa spent his time in the lab researching the effects of drugs and the physiology of the brain. He was just published in the [New England Journal of Medicine](#) and his findings will be presented at the upcoming Pediatric Academics Society meeting in San Diego.

Sousa plans to become a physician researcher and use his findings to advance the field of medicine.

COLLEGE OF SCIENCE ANNOUNCEMENTS

NEW COLLEGE LEADERSHIP

Dr. Lee Klingler, who has served as Chair of the Department of Mathematics for the past six years, will step down and return to the faculty. On July 1, **Dr. Rainer Steinwandt** will take the helm as the new Chair.

Dr. Warner Miller, who chaired the Physics Department since 2003, will take on the role of Associate Dean for Research and Partnership Initiatives for the College of Science, effective May 6. **Dr. Luc Wille** is already in place as Interim Chair of the Physics Department.

In Geosciences, **Dr. Charles Roberts** will step down as Interim Chair to focus on his role as Associate Dean for Graduate Studies. **Dr. Zhixiao Xie** assumed the role of Chair of Geosciences on May 6.

Dr. Janet Blanks will be stepping down as Director of the Center for Complex Systems and Brain Sciences and **Dr. Steven Bressler** will be assuming that role on July 1.

Dr. Jennifer Peluso has returned to the College of Science to serve as Associate Dean of Student Services working with **Dr. Ingrid Johanson**, Senior Associate Dean, and her advising team. In her new role for the College of Science, she will be an important liaison between the College and University Advising Services and will take a leadership role in advancing student success in the College.

Lisa Valjin has joined the Dean's office team and will take on all of **Lynn Sargent's** responsibilities once Lynn retires this Friday, May 22. Lisa spent 9 years with the College of Medicine and is looking forward to getting to know everyone in the College of Science. Please welcome her to the team.



LYNN SARGENT RETIRES

Lynn Sargent will be retiring on Friday, May 22 after 15 years with the College of Science. Lynn started in the Biology Office in 2000 and moved to the Dean's Office in 2007. Lynn is looking forward to moving to Viera, Florida, where she and her husband have their retirement home. We will miss Lynn's warm smile and helpful nature, but wish her the absolute best in her retirement.

SCIENCE SURVEY ON UNDERGRADUATE RESEARCH

The Office of Undergraduate Research and Inquiry (OURI) and the CES College of Science would like your feedback on strengths, weaknesses, opportunities and threats to research opportunities for undergraduates in our curriculum. We would greatly appreciate it if you could complete the following online survey that takes about 5 to 10 minutes - <https://ouri-liason.typeform.com/to/DorqCj>. For more information, contact Tobin Hindle at thindle@fau.edu.

ELEMENTARY SCIENCE OLYMPIAD

Dr. Ingrid Johanson and her team hosted another successful Elementary Science Olympiad. 24 teams participated in 12 events. For the first time in the history of the Elementary Science Olympiad, students from the Boys and Girls Club of Palm Beach County participated as a



team. Many of these students come from elementary schools where an emphasis on STEM education is lacking. To fill that need, high school students from Oxbridge Academy of the Palm Beaches have been mentoring these students all year and served as the team sponsors at the Science Olympiad—a responsibility previously only held by teachers.

MINI-MATH DAY SUCCESS

On Tuesday, May 5, close to 90 local elementary school students competed in a full day math competition at the annual Mini-Math Day hosted by the Department of Mathematics. The events were designed to students and their teachers with an opportunity to share an appreciation of mathematics, to exchange ideas, and to interact with FAU Mathematics faculty. The winner of the individual test was Donavan S, from Mrs. Timmons' class and there was a seven way tie for the team competition! This event is made possible by long time sponsor Wells Fargo.



SUMMER SCIENCE INSTITUTE

Now is the time to start planning for your kids' summer vacation. The College of Science offers a Summer Science Institute for students 11-13 years old. Session One is from June 15 – July 10 and Session Two is from July 13 to August 7, both run Monday through Friday from 9 a.m. to 2 p.m. Participants will learn about biology, anatomy and physiology, general chemistry, organic chemistry and physics in hands-on experiments and activities. The curriculum is experiment-based thus students will have an experiment to accompany most activities. Each session is \$800 with a \$50 application fee. Lunch and supplies are included. To apply, contact Jodiene Johnson 561-409-9031 or johnsonj@fau.edu or http://www.science.fau.edu/oce/about_science-institute.htm.



COLLEGE OF SCIENCE OUTREACH & NEWSMAKERS

TIME MAGAZINE FEATURES LEADER OF FAU'S CENTER FOR ENVIRONMENTAL STUDIES

Dr. Colin Polsky, Director of FAU's Florida Center for Environmental Studies, was featured in a TIME magazine article on President Obama's recent climate change speech in the Florida Everglades. Polsky discussed the Southeast Florida Regional Climate Compact, a partnership between Miami-Dade, Broward, Palm Beach and Monroe counties to address the impacts of climate change. "These four counties said: 'You know what? Sea level rise and the consequences need to be dealt with together,'" Polsky told the magazine. "The water doesn't respect county boundaries." [READ MORE](#)



KAILIANG JIA NAMED 2015 RESEARCHER OF THE YEAR AT THE ASSISTANT PROFESSOR LEVEL

At the 46th Annual Honors Convocation, **Dr. Kialiang Jia**, was named the 2015 Researcher of the Year at the Assistant Professor level. Jia credits his positive experience at FAU to its culture of research and innovation. "I attribute my research success at FAU to the excellent research environment on Jupiter campus and the consistent support from my chairman Dr. Rod Murphey," he said. He particularly enjoys the inspiring and close interactions with his colleagues and students at FAU, The Scripps Research Institute and Max Planck Florida Institute. Last year, Jia secured a grant of more than \$350,000 from the National Institute of Child Health and Human Development to enhance understanding of the role that cell-signaling pathways play in controlling animal development and diseases, such as cancer, neurodegeneration, aging, obesity, diabetes and parasitism.



GEOSCIENCES ASSISTANT PROFESSOR WINS AWARD FOR OUTSTANDING PUBLICATION

Dr. Caiyun Zhang, Assistant Professor in the Department of Geosciences, will be awarded the 2015 John I. Davidson President's Award for Practical Papers by the American Society for Photogrammetry and Remote Sensing during its Annual Conference May 7 in Tampa. Dr. Zhang is being recognized for her single-authored paper, [Combining Hyperspectral and Lidar Data for Vegetation Mapping in the Florida Everglades](#), which describes an innovative framework to combine two advanced remote sensing techniques for automated vegetation mapping in the Florida Everglades. This work can aid in ongoing Everglades restoration. The paper was published in August in the society's journal, [Photogrammetric Engineering & Remote Sensing](#).



MEDICAL PHYSICS STUDENTS PRESENT AT CONFERENCE

Four of our Medical Physics students gave oral presentations at the American Association of Physicists in Medicine (AAPM) meeting held from April 30-May2. Nader Moshiri presented "Should we use RapidArc VMAT for breast treatments? A dosimetric comparison"; Samantha Long's presentation was titled "Variations of cardiac dose at different respiratory status in CyberKnife M6 treatment plans for accelerated partial breast irradiation (APBI)"; Vindu Kathriarachchi presented "Will CyberKnife M6™ Multileaf collimator offer advantages over IRIS™ collimator in prostate SBRT?"; and Casey Curley

presented "A Dosimetric Study of a Heterogeneous Phantom for Lung Stereotactic Body Radiation Therapy Comparing Monte Carlo and Pencil Beam Calculations to Dose Distributions Measured with a 2-D Diode Array."

KELSO PRESENTS KEYNOTE SPEECH

Dr. J. A. Scott Kelso, Eminent Scholar in Science, was the invited keynote speaker at the opening session of the 18th Herbstakademie in Heidelberg, Germany, in March. His talk "De Agencia" was on the dynamical and developmental origins of agency. During his visit, Dr. Kelso met with Dr. Hermann Haken (the father of laser theory and the recipient of an Honorary Doctorate from FAU in 1992) and Dr. Thomas Ditzinger, a former Post-Doctoral Fellow at CCSBS and now Executive Editor of Springer Publishing. Drs Ditzinger and Kelso visited the famous Philosophenweg in Heidelberg, a path taken by scientists such as Bunsen, Kirchoff and Helmholtz, philosophers such as Hegel and poets such as Goethe.

STUDENTS PRESENT AT SMALL WORLD INITIATIVE FOR ANTIBIOTIC DISCOVERY (SWI)

Six students who did undergraduate research with **Dr. Joe Caruso** on antibiotic discovery as part of the Small World Initiative for Antibiotic Discovery (SWI) will present posters at the Annual Meeting in Austin, TX at the end of May. The students who will be presenting posters in Austin are Chad Coarsey, Martha Narvaez, Mohamed Elbashir, Alex Voitkov, Erick Espana and Mike Kiken. This work was supported by FAU's Office for Undergraduate Research and Inquiry.

GRANTS AWARDED*

Dr. J.A. Scott Kelso received \$385,008 from NIH for his work on "Neuromarkers of Social Coordination." This is the 2nd year of a grant totaling \$811,760 to date.

Dr. Erika Hoff received \$714,547 from NIH for her work on "Early Dual Language Development in Children from Spanish-speaking Families." This is part of a multi-year grant totaling in excess of \$3.2 million to date.

Dr. Stephen Kajiura received \$31,000 from the FAU and HBOI Foundations to support his research on "Quantification of Massive Seasonal Shark Aggregations in Palm Beach County."

Dr. Xavier Comas received \$8,543 from the University of New Hampshire for his work on "Luqullo CZO: The Role of Hot Spots and Hot Moments in Tropical Landscape Evolution and Functioning of the Critical Zone." This is 2nd year of a grant totaling \$15,396.

Drs. Rainer Steinwandt and Warner Miller received \$392,482 from the Air Force Research Laboratory for their research, "Quantum Technology, High-Speed Encryption and Global Analysis of Networks."

Dr. Necibe Tuncer received \$25,130 from the University of Florida/National Science Foundation for work on "Avian Influenza: Modeling, Analysis and Implications for Control."

***To include your grant in this section, please forward the information to Paige Garrido at pgarrido@fau.edu.**

UNIVERSITY-WIDE ANNOUNCEMENTS

WORKDAY IS COMING JULY 1, 2015

By replacing its aging computer systems that are becoming more costly and increasingly difficult to support, Workday will enable FAU to improve the way it administers and delivers key human resource, benefit, and financial services to faculty and staff. Many paper-driven, labor-intensive business processes like the Personnel Action Form (PAF) will now be automated, making it easier and faster to submit and track changes. In addition, policies and processes will be built into the new system to ensure consistency and transparency. Please visit the website to learn more:

<http://www.fau.edu/workday/>.

If you have any news you would like to include in future editions of *Science Connect*, please email Paige Garrido at pgarrido@fau.edu.