

Recognition

Editorial recognition

Faculty member Dr. **Scott Lewis** was recently chosen as an Associate Editor for the journal *Chemistry Education Research and Practice*. CERP is a Royal Society of Chemistry journal that is dedicated to presenting chemistry education research and bridging the gap between research and practice.

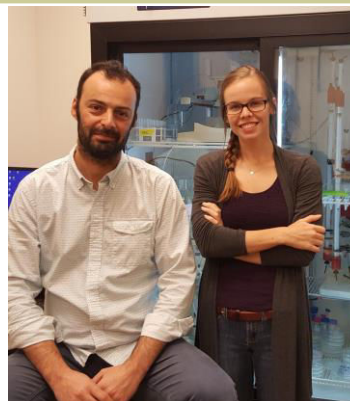


Dr. Lewis

Faculty Break through

Dr. **Ioannis Gelis**, assistant professor of Chemistry, reported a ground-breaking study on the Hsp90 chaperone. *Nature Communications*, 2018, 9 (1), 265.

His *Nature Communications* paper entitled "Phosphorylation induced cochaperone unfolding promotes kinase recruitment and client class-specific Hsp90 phosphorylation" was published in January.



Dr. Gelis and Ms. Bachman

Chaperones are proteins that assist other proteins (their substrates) to acquire their native three-dimensional conformation which is essential for their function. Hsp90 is such a chaperone, which does not function all by itself, but requires the help of other protein termed cochaperones.

The study led by the group of Dr. Ioannis Gelis, assistant professor in the Chemistry Department, shed light into the molecular mechanism by which the chaperone-cochaperone-substrate complex disassembles.

The significance of this study lies in the intriguing mechanistic insights described and specifically in the role of protein phosphorylation in modulating the conformation of a protein and the coupling of phosphorylation at multiple sites.

Ms. Bachman, a graduate student advisee in the Gelis laboratory was listed as first author

Faculty awards

BRAG

Dr. **Wesley Brooks**, a research assistant professor of Chemistry and collaborator with Dr. **Wayne Guida**, professor and chair of Chemistry announced an award of \$25,000 to CuPRx,LLC.



Dr. Brooks

This is a USF- affiliated firm that was founded to commercialize inventions developed in the Guida Laboratory. Dr. Brooks is CEO of CuPRx.

The award of \$25,000, a USF Bull Ring Accelerator Grant (BRAG), was made to continue development of Virtual Target Screening software being developed by Dr Brooks of CuPRx and Mr. **Rainer Metcalf** and Mr. **Alan Caragal** chemistry students in the Guida Lab.

The software (VTS) is a computational approach to drug repurposing that assists in the identification of potential adverse effects of drug candidates.

Faculty Grant-II

Dr. **Mildred Acevedo-Duncan** received a \$250,000 grant from the William and Ella Owens Medical Research Foundation for her “Breast Cancer Survival project.”



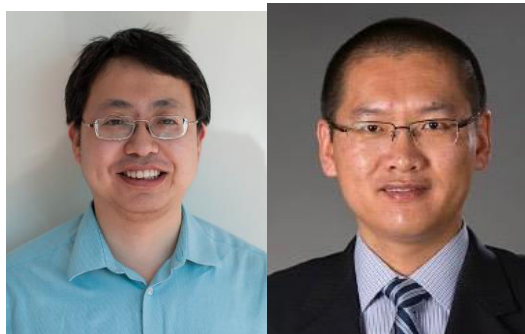
Dr. Acevedo-Duncan

In making the announcement, Dr. **Wayne Guida** noted, “The Owens Medical Research Foundation is a private foundation, and we are very grateful for Award their support of Mildred’s Research and our Department.”

Faculty Grant -III

Drs. **Jianfeng Cai** and **Xiaopeng Li** (**Chemistry**) and Dr. **Prahathees Eswara** (CMMB) were awarded a NIH RO1 grant that totals \$1,414,197

The major goal of this research is to design, synthesize and investigate a new class of antibacterial biomaterials based on 2D metallo-supramolecules with multilayered structure.



Dr. Cai

Dr. Li

The investigators intend to demonstrate that such biomaterials are a promising approach to the development of a new generation of antibiotics with a novel mechanism of action through formation of unprecedented multi-layered transmembrane channels with distinct pore sizes.

Chair, Dr. Wayne Guida, wrote “This is an amazingly interesting project with significant potential to treat human disease.”

It's R01 grant. The particulars as follows:

Faculty Grant -IV

Dr. **Mildred Acevedo-Duncan** received a grant in the amount of \$560,000 from the Leo and Ann Albert Charitable Trust to support her research on Atypical PKC Inhibitors as anti-cancer agents. This is a collaborative project which involves Drs. **James Leahy** and **Wayne Guida** from our department as well.



Recognition (cont.)

Kroner Awardee

In March, Ms. **Kaitlin Kroner** won the *Quiet Quality Award*, a campus-wide USF staff award given to recipients based on—among other qualities—their conscientiousness, professionalism, and positive attitude.



Ms. Louis-Jeune. & Ms. Kroner

The award was presented by Sclafani Louis-Jeune, College of Engineering.

Outstanding Research Recognition

President **Judy Genshaft** and Provost **Ralph Wilcox** presented outstanding research awards to two chemists on March 22: Drs. **Jennifer Lewis** and **Shengqian Ma** are pictured with the president (left) and the provost (right).

Fulbright Recognition

Dr. **Solomon Weldegirma** received notice that he is the recipient of a 2018-19 Fulbright U.S. Scholar grant. His Fulbright project is titled “Supporting Green Chemistry Education in Ethiopia and Contributing to the Current Need for Sustainable Chemical Methodology”.

Dr. **Weldegirma** was born in Ethiopia, earned his B.S. (Asmara U) and M.S. (Addis U.) there before earning a Ph.D. from Oslo.

He has been in Chemistry since 2005 as a post-doc with Dr. Bill Baker, subsequently as Instructor (2007), and he became the first Instructor III (2017).

He is coordinator and director of USF’s undergraduate organic chemistry laboratory

program that serves over 2,500 students per year.



Dr. Weldegirma

He will serve at Bahir Dar University, Bahir Dar, Ethiopia.

Research Recognition

Dr. **Wayne Guida** noted: A PNAS paper titled “Newly Engineered Enzyme Could be the Key to Reducing Petroleum’s Prominence in Creating New Plastics” emanating from Professor Woodcock’s group with graduate students Fiona Kearns and Ben Pollard is receiving national and international attention.

Check out the following USF press release: <http://news.usf.edu/article/templates/?a=8374&z=220>.

The work also involved scientists at the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL) and the University of Portsmouth.

Out and About...

Welcome Gathering

A welcome back gathering, organized by **Ms. Kroner**, was held on Friday, January 12th (1-4

pm) on the 7th floor of the Interdisciplinary Science Building.



Ms. Kroner

Originally scheduled for a tent in the Botanical Gardens, the prediction of rain induced a change to the room with a great view, and great pizzas for students, faculty, and staff to gather and visit in the bi-level room.

Castle Research Conference

The 16th Conference was held Saturday March 25th with about 150 persons in attendance.

“The Raymond N. Castle Student Research Conference was initiated as a means to encourage undergraduate and graduate students to present their scientific data in a friendly atmosphere. The Castle Conference is organized by the students and provides the opportunity for young scientists to develop the necessary communication skills to excel in the future.”

A noteworthy feature was the representation from other colleges and universities, including contributions from different USF departments.

Guest Lecturer:

Dr. Catherine Fenselau spoke: “Biological Mass Spectrometry: Observations on its Evolution.”

In her lecture, the aspirations, advances in instrumentation, successful applications and Nobel prizes were reviewed as part of the evolution of biological mass spectrometry. She provided illustrations from her laboratory.

She is at University of Maryland where she is Distinguished University Professor of Chemistry and Biochemistry, Affiliate Professor of Bioengineering and a member of the Greenebaum Cancer Center.



Dr. Fenselau

She has published more than 380 peer-reviewed research papers and book chapters. In addition, about 140 undergraduates, graduate students and post-doctoral fellows have received training in her laboratory.

Dr. Fenselau was one of the first trained mass spectrometrists to join the faculty of an American medical school (Johns Hopkins).

In her lecture, aspirations, advances in instrumentation, successful applications, and Nobel prizes were reviewed as part of the evolution of biological mass spectrometry. She provided illustrations from her laboratory through the years including her time as the first trained mass spectrometrists to join the faculty of an American medical school (Johns Hopkins).

She is currently at the University of Maryland at College Park where she has recently been

named a Distinguished University Professor in the Department of Chemistry and Biochemistry and holds appointments as Affiliate Professor of Bioengineering and is also a member of the Greenebaum Cancer Center.

She has published more than 380 peer-reviewed research papers and book chapters and trained 140 undergraduates, graduate students and post-doctoral fellows in her laboratory.

Acknowledgments:

Many persons helped make the Conference a true success including the following:

Organizing Committee Members:

Zachary Shultz (Chair), Alejandro Rivera Nicholls, Douglas Franz, Adam Hogan Brant Tudor, Imalka Marasinghe Arachchilage, Sylvia Singh, Ruixuan Gao, Sarathi Ratnayake, Chuan Shan, Bo Song, Hellen He, Elena Bray, AJ Sona, Jamie Nunziata.



Committee members: From left to right: (Back) Dr. Shi, Dr. Bourgeois, Jamie Nunziata, Alejandro Rivera Nicholls, Bo Song, Chuan Shan, Ruixuan Gao, (Front) Dr. Fields, Zachary Shultz, Elena Bray, Sylvia Singh, Imalka Marasinghe Arachchilage.

Faculty Advisors Dr. **Xiaodong (Mike) Shi**. Assisted by Dr. Kimberly Fields, and Dr. **Marie Bougerois**.

Staff members who assisted included Ms. **Leigh Anne Blackwell**, Mr. **Ryan Jahn**, and Mr. **Matthew Casto**.

Web support was provided by Mr. **Brant Tudor** and Mr. **Douglas Franz**

Judging: Credit the 26 judges from eleven sources.

Talks: “15 graduate student talks covered almost all of the basic areas of current ongoing research at USF Chemistry.”

Posters: “38 graduate student posters and 48 undergraduate posters covered all areas of our ongoing research.” A third room needed to be opened.

Activities: the “Chem Bowl”

This activity was organized by the *USF Chemistry Society* and involved seven rounds of questions asked of the 15 undergraduate participants.



ChemBowl gathering of undergraduate attendees. Anna Hemminger, USF Chemistry Society Co-President, organized the event (at center/ front row second in from left side).

31st Annual Scholarship & Alumni Banquet

March 26th Marshall Student Ball Room



Outstanding Chemistry Alumni Awardee:

Giordano da Silva, Ph.D., Senior Medical Scientific Liaison at Shire Pharmaceuticals, gave the keynote address .

He was educated at USF (B.A., 2002; Ph.D., (2007, Advisor Dr. **Li-June Ming**).

He has had a varied professional career:

He was a NIH fellow at Rice University doing research focused on the biosynthetic pathway of norephrine among other significant topics, and was a visiting scholar at the MD Anderson Cancer Center.



Dr. da Silva

In 2013, he joined (2013) the Department of Biochemistry and Molecular at the University of Texas McGovern Medical School as a faculty member.

In 2016, he joined the private sector as a Medical Science Liaison, Vanda Pharmaceuticals.

And in 2017, he became a Senior Medical Science Liaison at Shire Pharmaceuticals where his current work in hematology focuses on such bleeding disorders as hemophilia and Von Willebrandt's.

He presented an interesting and thorough lecture.

Award presentations to qualified students are a key feature. Faculty and staff members presented 12 *Division Awards*, three *Undergraduate Research Awards*, and 9 *Undergraduate Council Awards*. Over 140 students were listed on the *Honor Roll*. These are part of the 3800 chemistry advisees who have satisfied a number of requirements including 60 USF credit hours, 18 USF Chemistry coursework while maintaining a 3.75 GPA or better and other requirements.

Graduate Student Awards

An awards ceremony prior to the start of Graduate Seminar was held on April 19th to celebrate the achievements of our graduate students.

The George Bursa Award Recipient: **Brian O'Flynn**



Mr. O'Flynn

Theodore and Venette Askounes Ashford **Doctoral Fellowship in Chemistry** Recipients: **Ying He and Zachary Shultz**

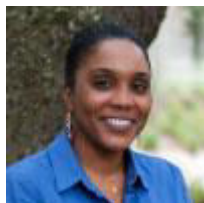


Ms. He



Mr. Shultz

Barbara B. Martin Endowed Fellowship in **Chemistry** Recipients: **Anne-Claire Limon and Ma Su**



Ms. Limon



Ms. Su

Alexiou Award in Environmental Chemistry

Recipient: **Briana Aguila**



Ms. Aguila

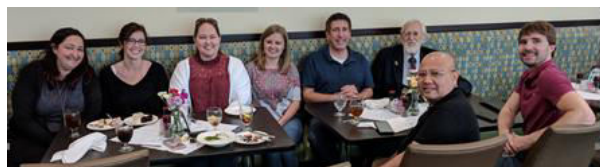
The Martin Travel Endowment Award



Recipients: **Nicole Avalon, Christopher Cain, Aaron Clark, Yassin Elbatrawi, Stephanie Feola, Rebecca Gibbons, S M Anisul Islam, Wishrawana Sarathi Ratnayake, and Bo Song**

Out and About –II

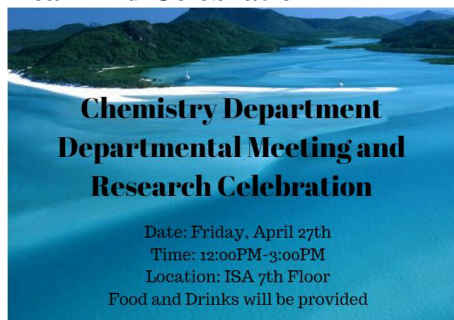
Staff & Administration Appreciation luncheon



Dr. Nelson, Ms. Kroner, Ms. Blackwell, Ms. Budnack, Mr. Jahn, Dr. Martin, Mr. Avergonzado, Mr. Casto

The spring luncheon was held April 25 for seven Office Staff members at USF's *Top of the Palm's* restaurant to celebrate Administrative Professionals Day.

Year-End Celebration



The meeting was coordinated by Ms. **Kaitlyn Kroner** with assistance from staff members and others. Faculty, Staff, and students attended, and they enjoyed discussions and refreshments.

Persons you may know

Dr. **Phillip Buckhaults** (B.S., Chemistry, 1988) is Director of the Cancer Genetics Lab, and associate professor, Department of Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina.

Susana S. Lopez (Ph.D.'16) is a now a Post-doctoral Fellow in Dr. **Karl Scheidt's** Laboratory, Department of Chemistry, Northwestern University. Dr. **Jon Antilla** was her doctoral advisor

Dr. **Dean F. Martin** (faculty, 1964--) was made a Life member of the American Association for the Advancement of Science in recognition of his fifty years of membership in the Society.

Dr. **George Newkome**, *USF Prof. chemistry and VP for research* (1986-2001) FNAI, FRCS, FAAAS *University of Akron*: James & Vanita Oelschlager Professor of Science and Technology Emeritus, Dept. of Polymer Science, VP for research. *Florida Atlantic U.:* Affiliate research prof. Center for molecular Biology and Biotechnology.

About USF

Judy Genshaft, Ph.D., President USF System

In July, President Genshaft will be the longest-serving president in the state system. She started in July 2000.



Paul Sanberg, M.D., Ph.D., Senior VP for Research and Innovation,



Dr.Sanberg

Dr. **Paul Sanberg** presided over the seventh annual conference of the National Academy of Inventors held in Washington, D.C. April 4-6. The Theme was “Exploring the intersections of Innovation.”

Topics included “Intersections of Innovation,” “Future Intersection of Ideas and Entrepreneurship,” and “Intersection of Academia, Government, and Industry.” Presenters included NAI Members and Fellows, as well as university leaders, government officials, and student innovators.

Did you know?

When Chemistry received department status in October 1964, there were perhaps eight buildings, all air-conditioned. Now there are 57 buildings with 190 air handlers to worry about.

USF ranks #1 in student success among 1,100 Research and doctoral universities (Eduventures)

Total students: USF System 42,803

Origin: USF Students come from every state and more than 145 countries

#1 Best College for Veterans (*Military Times*)

#5 among American public universities generating new U.S. Patents 11th worldwide

Acknowledgments

Dr. **Xiaodong Michael Shi** provided useful Information about the 16th Castle Conference

Mr. **Brant Tudor** provided student portraits.

Dr. **Christina Nelson** checked copy

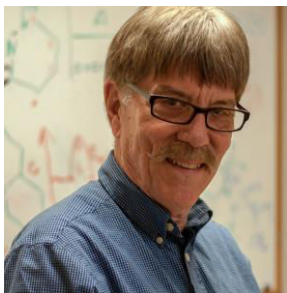
Abbreviations

CMMB: *Cell and Molecular Biology*

PNAS: *Proceedings of the National Academy of Science*

Web page:
<http://chemistry.usf.edu>

Chair's Address:



Dr. Guida

Dr. Wayne Guida
Professor and Chair
Department of Chemistry
University of South Florida
4202 E. Fowler Ave, CHE 205
Tampa, FL 33620

Webmaster: Mr. Brant Tudor



Mr. Tudor

News:

For past issues you may have missed, please see the departmental Web page.

Web page:

<http://chemistry.usf.edu>

News for us or comments?

Please write to: dfmartin@usf.edu