

# **USF Chemistry NEWS**

News of Interest to
Friends of the Department of Chemistry
University of South Florida

Volume 14, No 3 Summer 2016

# MRSA study --

A USF news release noted "A serious and sometimes fatal bacterial infection known as methicillin-resistant *Staphylocccus aureus* (MRSA) may soon be beatable."

This good news is credited to the efforts of USF scientists who isolated and tested an extract from a sponge found in Antarctica that yielded a new compound called "Darwinolide".

Dr. Bill Baker professor of chemistry and Director, CDDI, dived in frigid waters near Palmer Station and collected the sponge of interest. He led the group that isolated and characterized chemical structure of the sponge extract.



Dr. Baker



Dr. Shaw

Darwinolide was tested against MRSA in the laboratory of USF microbiologist Dr. **Lindsey "Les" Shaw** and only1.6% of the bacterium survived.

Results were described in a manuscript: Jacqueline L. von Salm, Christopher G. Witowski, Renee M. Fleeman, James B. McClintock, Charles D. Amsler, Lindsey N. Shaw, and Bill J. Baker. Darwinolide, a new diterpene scaffold that inhibits MRSA biofilm from the Antarctic sponge *Dendrilla membranosa*. *Org. Lett.*, In press.

# In the Department

#### **Grant News-I**

Prof. **Brian Space** was awarded an ACS PRF grant in the amount of \$110,000 for the period 7/1/2016 through 8/31/2018 in support of Accurate and Predictive Petroleum Molecular Modeling.



Dr. Space

#### **Grant News-II**

From Dr. Wayne Guida: Dr. Ed Turos' proposal entitled "Characterization of Ketogenic Compounds" between the University of South Florida and Scivation, Inc., was selected to receive Corridor matching funds.



Dr. Turos

The Corridor's Matching Grants Research Program is a state initiative fostering the development of commercially applicable emerging technologies by encouraging applied research between the region's high technology industry partners and the three Corridor universities: University of South Florida (USF), University of Florida (UF), and University of Central Florida (UCF). Funds in the amount of \$39,489.00 will be made available Dr. Turos.

#### **Promotion**

From Dr. Wayne Guida: Dr. Scott Lewis was officially granted tenure and promoted to associate professor by the USF Board of Trustees at its meeting on June 2, 2016.



Dr. Lewis

Dr. Lewis joined the chemistry faculty in August 2103. He also earned his Ph.D. in chemistry at USF in 2006.

#### **New Staff Member**

Ms. Leigh Anne Blackwell to our Department staff as the Academic Project Specialist serving as the Graduate Secretary. Leigh Anne comes to us with a background in academic advising.



Ms. Blackwell

She gained her experience most recently with The Right Fit Foundation where she provided academic counseling and guidance to students, assisted students in attaining admission to top choice colleges through reviewing and editing students' application materials, offering corrections and feedback strategies, monitoring admission and financial aid deadlines, and utilizing college academic profiles.

She has a B.S. in criminology from the University of Tampa and a graduate certificate in children's mental health from USF.

### **New Faculty Member**

Dr. **Xiaopeng Li** has joined the department as an assistant professor.

Formerly he was a tenure-track assistant professor in the Department of Chemistry and Biochemistry at Texas State University, San Marcos.



#### His long-standing research interests include fundamental understanding of coordination-based supramolecular chemistry through building the connection between mathematic geometry and self-assembly; 2) investigating supramolecular structure, dynamics and reactivity by ion mobilitymass spectrometry; 3) design complex materials with high performance through hierarchical self-assembly of giant 2D and 3D supramolecules with molecular- level precision; 4) explore the application of supramolecular materials in biological field.'

His educational background and CV will be found on the Department web page.

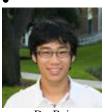
# In the Department -II

### **Chemistry graduates -Spring 2016**

Eight graduate students earned advanced degrees. The graduates (and their advisors in parentheses) are listed below:

### **Doctoral** graduates

- Ge Bai (Dr. Jiangfeng Cai)
- Oigan Cheng (Dr. Peter Zhang)
- Jacquelin Salm Fries (Dr. Baker)



Dr. Bai

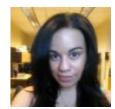


Dr. Liang

- Yi Liang (Dr. Mark McLaughlin)
- Susana Lopez (Dr. Jon Antilla)



Dr. Salm Fries



Dr. Lopez

#### Masters graduates

- Michael Kemp, (Dr. Lee Woodcock)
- **Demetrios Pantages**, (Dr. Jon Antilla)
- Jeanine Yacoub, (Dr. Jim Leahy)





Mr. Pantages



Ms. Yacoub

# In the Department -III

# **Semi-Annual Staff Appreciation Luncheon and Birthday Party**

The luncheon was hosted by a chemistry faculty couple for 15 persons to thank dedicated staff members for their valuable service, and also to celebrate Dr. Randy Larsen's birthday (June 22). He served two four-year terms as department chair and is now associate dean for research and scholarship in CAS.



Dr Larsen

The Chinese-based luncheon was ordered and collected by Ms. **Kimberly Read** (Mgr. Fiscal and Business admin.), and transported to the ISA Conference room by Chemistry staff members.



Ms. Read

### Chemistry in Florence

Dr. Kimberly Fields (instructor) taught Organic I in summer B (June 27- August 5th) at the University of Florence. Dr. David Merkler (professor of chemistry) taught biochemistry during summer B as well for his third year as part of the Science in Florence program.



Dr. Merkler

The idea is to broaden the ability for premed/preprofessional students to take participate in a study abroad experience without adversely affecting their degree completion and/or competitiveness for professional school application.



Latest labware in medieval Florence (courtesy of Dr. Fields)

The USF Science in Florence program is designed to allow students an opportunity to take such full-immersion courses as Biochemistry as part of their pre-health professional curriculum while studying abroad.

#### For more information:

http://educationabroad.global.usf.edu/index.cfm?FuseAction=programs.ViewProgram&Program\_ID=23204

### **Advising Cadre responsibilities**

How many chemistry advisees? Few faculty remember the days when 120 majors (including clinical chemistry majors) put us in the top ten of universities across the nation.

The six members of the chemistry advising cade now have responsibility for **3700** students. And for student convenience, the cadre will be divided between the Science Center and student-oriented-needs area of the second floor of the USF Library.

The Division of Health Professions Advising will be in the Library and Mr. **Anthony Iannelli** will be transitioning with them. He will be working specifically with Chemistry Health Professions students

# News and updates re: Persons you may know

Jarrod F. Eubank (Ph.D. '08) is now an

assistant professor of chemistry at Florida Southern College, Lakeland.

Maria Gallardo-Williams (Ph.D.' 99) who is senior lecturer and coordinator organic laboratories at North Carolina State) was among those whose view of the significance of Boron was included in the July 4th issue of *Chemical & Engineering News*.

Dr. Joanna Fowler, radiotracer pioneer was a featured interviewee in the June 20, 2016 issue of *Chemical & Engineering News*.

She was a B.A. 1964 graduate, earning Ph.D. at the University of Colorado (1967) She had a long career at Brookhaven National laboratory while specializing in developing radiotracers for brain imaging, in part for diagnosing addiction and was elected to the National Academy of Sciences (2000). Among other honors was her D.Sc. (h.c.) conferred by USF in 2010. Further background information may be found under "Honorary Doctorates" on our Web page.

**Ralph Salvatore** (Ph.D. '01) is an adjunct professor of chemistry at Florida Southern College.

Dr. **Santiago Sandi-Urena** (faculty 2009-2015) is a tenured faculty member at the University of Costa Rica in San Pedro Montes de Orca.

Tampa Bay Section –ACS

The section's Awards Dinner was held May 11<sup>th</sup> at the Gibbons Alumni Center, in Leadership Hall

The leading organizer was the section chair, **Kimberly Fields** (Ph.D.'10), permanent

instructor in chemistry, who also serves as faculty advisor to the Chemistry Society.



Dr . Fields

The section hosted the keynote lecturer, **Kevin Lothridge** of the National Forensics Science Technology Center.



The speaker and some of the guests.

Also honored guests were three 50-year members and four 60-year members.

In addition the gathering showcased the research of outstanding local students at a social hour prior to the dinner (for two examples, please see below).





Two poster presenters with visitors

# What did they do later?

For over 20 years, we have been trying to keep track of our chemistry alumni in what we call the "Tracking Project," and the results may be found on our web page. Look for "Directory" and find either "Graduate Alumni" or "Undergraduate Alumni."

It is far from complete, but we lack the necessary resources to be as good as we would like to be. We value the help of loyal alumni in bringing us up-to-date.

### **Around USF**

### Library news

Though the University started classes in late September, 1960, the library wasn't open until April 9, 1961 after some five years of planning and 18 months of construction. It had 130,000 sq.ft. and 30,000 volumes. It later became the Student Services building.

The 2015 annual report with its impressive message from Dean of the USF Libraries **Todd Chavez** makes interesting reading.

The current facility at the Tampa Campus is 40 years old. It has 1.8 million books plus 541,243 electronic books and about 95,000 print and electronic journals are available to Library patrons.

The patrons surely come: 2,170,879 inperson visits to the USF Tampa Library in 2015 plus 1,185,123 online visits to lib.usf.edu.



Dean Todd Chavez

And they really read: some 1,653,310,310 full-text downloads from USF Scholar Commons in 2015 alone, representing visits from 134 countries.

The USF Tampa Library building is the busiest building on campus, and to meet the demand for spaces to sit and to meet the electronic and networking demands students have, some 50,000 additional square feet of student space has been added.

And while the walls aren't made of rubber, 50,000 square feet of student space was created by relocating collections onto compact shelving.

It is a Twenty-first century library.

#### **Athletics**

Mr. Mark Harlan, USF Athletic Director issued (May 6) a statement in response to interest in possible changes in our athletic conference in which he focused on a central issue:

"In the past school year, Bulls teams have won multiple American Athletic Conference Championships, participated in multiple NCAA postseasons and, in 2015-2016, for the first time in school history, secured the highest ranking in the American in the Learfield Cup standings, which recognizes outstanding overall achievement in a department. Meanwhile, we have also celebrated academic wins, with our student athletes sustaining an overall average 3.0 GPA for multiple semesters while our graduation rate continues to steadily climb – now at 82 percent. Moreover, this year USF student-athletes and coaches participated in a record number of community service activities throughout the Tampa Bay region."

#### Patent announcement

USF "ranks ninth in the nation among public universities for US patents granted in 2015" according to a report released by the National Academy of Inventors (NAI) and the Intellectual Property Owners Association (July 12, 2016).

The report indicated that USF had 90 patents in 2015 and noted the important role patents play in university research.

# Acknowledgments

Mr. Mark Harlan, USF Athletic Director, for permission to quote from his May 6 memorandum.

Dean **Todd Chavez** for helpful conversations and useful background information.

Ms. who is Kelly Pearson, Coordinator, Natural Science and Mathematics Advising Center; Program Coordinator, Medical Technology; Academic Advisor. Department of Chemistry. She provided helpful information concerning the number of chemistry majors and how they are advised.

Dr. **Christina Nelson** (Academic Services administrator) provided helpful comments.

### News and feedback

Chair's Address:



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

Webmaster: Mr. Brant Tudor



Mr. Tudor

### News:

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

News for us or comments?
Please write to: dfmartin@usf.edu