

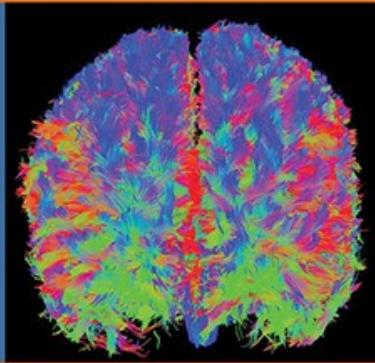


FEBRUARY  
Issue #2/Spring 2017

## Department of Biochemistry & Molecular Biology

**SAVE-THE-DATE!**

### UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE Celebration of Research



**TUESDAY, FEBRUARY 28, 2017  
KEYNOTE SPEAKER**

**12:00 - 1:00 pm  
C1-011, Communicore, HSC**



**Beverly L. Davidson, PhD**

Director, The Raymond G. Perelman Center for Cellular and Molecular Therapy  
Chief Scientific Strategy Officer  
Arthur V. Meigs Chair in Pediatrics, Children's Hospital of Philadelphia  
Professor of Pathology & Laboratory Medicine,  
Perelman School of Medicine at the University of Pennsylvania

*\*Sponsored by the Joseph and Leila Applebaum Visiting Professorship*

**MONDAY, FEBRUARY 27, 2017  
POSTER SESSION & RECEPTION**

**5:30 - 8:30 pm  
Stephen C. O'Connell Center**



<http://researchaffairs.med.ufl.edu/researcher-resources/2017-celebration-of-research/>

## ADVANCED MAGNETIC RESONANCE IMAGING AND SPECTROSCOPY FACILITY (AMRIS) ACQUIRES TWO NEW MAGNETS



Recently, a new Siemens 3T MRI/S scanner was delivered to the Advanced Magnetic Resonance Imaging and Spectroscopy (AMRIS) facility.

Magnetic Resonance Imaging and Spectroscopy (MRI/S) is a powerful technique used to non-invasively examine the anatomy and physiology of the body in health and disease, such as measuring brain structure and function, monitoring muscle fitness, and examining heart metabolism *in vivo*.

This instrument will support a rapidly increasing number of federally-funded investigators at UF who rely on MRI/S in their research studies addressing Parkinson's disease, muscular dystrophy, aging and cognition, Alzheimer's disease, adolescent brain cognition development, traumatic brain injury, obesity, diabetes, fatty liver disease, anxiety, and pain.

[Read more on the installation process here.](#)

The University of Florida AMRIS center has also commissioned an Oxford HyperSense Dynamic Nuclear Polarization (DNP) system. This commercial system adds new capabilities in addition to a homebuilt DNP system already present at AMRIS. DNP uses the presence of an exogenous radical doped into a sample, very low temperatures ( $\sim -272^{\circ}\text{C}$ ), and microwave irradiation to enhance magnetic resonance signals by 4 to 5 orders of magnitude. The increased sensitivity of the experiment allows real-time measurements of metabolism to be carried out in living systems, from cell culture to rodents. The new system will more than double the throughput for DNP experiments at AMRIS, and will initially be used to study heart and liver metabolism. Dr. Matthew Merritt, pictured here, and Dr. Joanna Long were two BMB faculty members that were instrumental in obtaining these magnets.



# BMB SEMINAR SERIES

## CENTER FOR STRUCTURAL BIOLOGY SEMINAR SERIES

The seminar series of the Center for Structural Biology seeks to provide stimulating discussions with a molecular-structure focus or a focus on the cell and tissue/organism level of biological structure. Dr. Mavis Agbandje-McKenna is the Director for the CSB ([mckenna@ufl.edu](mailto:mckenna@ufl.edu)).

These sessions meet the third Monday of every month in the McKnight Brain Institute, DeWeese Auditorium (LG-101A), unless stated otherwise. The Fall 2016-Spring 2017 schedule may be seen [HERE](#).

**February 22** [Chruszcz Maksymilian, Ph.D.](#), Associate Professor, Department of Chemistry and Biochemistry, University of South Carolina  
**Topic:** TBA

**March 20** [James Keck, Ph.D.](#), Professor, Department of Biomolecular Chemistry, University of Wisconsin School of Medicine and Public Health  
**Topic:** TBA

## CENTER FOR EPIGENETICS

The CEG serves as focal point and provides a framework to promote communication, interactions, and collaboration among ~50 investigators in the area of epigenetics who are housed in many different departments within and outside of the COM. It also provides a variety of important services, facilities, training, equipment, and expertise to assist the large number of laboratories engaged in epigenetics-related research. In its role to enhance learning and communication in the area of epigenetics, the CEG organizes the **CEG Seminar Program** featuring special invited speakers from outside the University of Florida. These speakers include some of the most prominent researchers in the field of epigenetics. This academic year, there will be eight guest speakers.

The Director for the Center for Epigenetics is Dr. Thomas P. Yang, ([tpyang@ufl.edu](mailto:tpyang@ufl.edu)). The full schedule of guest speakers may be viewed [HERE](#). **These sessions are held at 4:00pm in CGRC-451A unless stated otherwise.**

**February Schedule:** No CEG Guest Speakers

**March Schedule:**

**March 13** [Paul Wade, Ph.D.](#)  
Deputy Chief and Senior Investigator  
Epigenetics & Stem Cell Biology Laboratory  
National Institute of Environmental Health Sciences  
Research Triangle Park, NC  
**Topic:** *Transcription, chromatin and cancer*

**March 27** [Steven Henikoff, Ph.D.](#)  
Member, Fred Hutchinson Cancer Research Center  
Investigator, Howard Hughes Medical Institute  
Seattle, WA  
**Topic:** *Genome-wide mapping of protein-DNA interaction dynamics*

## BMB SEMINAR SERIES, cont.

### BMB FACULTY RESEARCH DISCUSSIONS

Dr. Linda Bloom ([lbloom@ufl.edu](mailto:lbloom@ufl.edu)) coordinates this seminar series in which BMB faculty and local researchers are able to give presentations on their ongoing research. This series meets weekly on Wednesdays from 4:00–5:00pm. [Spring 2017 full schedule](#).

#### February Schedule:

- |                    |   |
|--------------------|---|
| <b>February 1</b>  | <b>Dr. Mingyi Xie</b> , Assistant Professor, Department of Biochemistry and Molecular Biology<br><b>Topic:</b> <i>Non-canonical microRNA biogenesis pathways in herpesviruses and their mammalian hosts</i>   |
| <b>February 8</b>  | <b>Dr. Matthew Merritt</b> , Associate Professor, Department of Biochemistry and Molecular Biology<br><b>Topic:</b> <i>Using an Odd-Chain Fatty Acid to Increase Carbohydrate Oxidation in the Myocardium</i> |
| <b>February 15</b> | <b>Dr. Mavis Agbandje-McKenna</b> , Professor, Department of Biochemistry and Molecular Biology<br><b>Topic:</b> <i>Structural insights into emerging pathogenic human parvovirus</i>                         |
| <b>February 22</b> | TBA   |

## BMB JOURNAL CLUBS

### STRUCTURAL BIOLOGY JOURNAL CLUB/BCH 6875

**Mondays, 3:00-4:00pm, ARB R3-265**

The Structural Biology Journal Club on Methodologies and Discoveries in Crystallography and Cryo-Electron Microscopy is hosted by Dr. Mavis Agbandje-McKenna ([mckenna@ufl.edu](mailto:mckenna@ufl.edu)) and Dr. Rob McKenna ([rmckenna@ufl.edu](mailto:rmckenna@ufl.edu)). [Click here for Spring 2017 semester schedule](#).

#### February Schedule:

- |                    |   |
|--------------------|---|
| <b>February 6</b>  | <b>Mam Mboge</b><br><b>Journal Article:</b> <i>Automated harvesting and processing of protein crystals through laser photoablation;</i> <a href="#">link to article</a> |
| <b>February 13</b> | <b>Mengxiao Luo</b><br><b>Journal Article:</b> TBA*   |
| <b>February 20</b> | <b>Avni Bhatt</b><br><b>Journal Article:</b> TBA*   |
| <b>February 27</b> | <b>J. Kennon Smith*</b><br><b>Journal Article:</b> TBA*   |

\*Journal articles will be added here once they are determined—check back frequently.

## BMB JOURNAL CLUBS, cont.

### BMB JOURNAL CLUB/BCH 6936

**Tuesdays, 11:45am–12:45pm, ARB R3-265.**

Each week, a student in the Biochemistry and Molecular Biology Advanced Concentration presents a journal article from the current literature to the group of BMB students, postdocs, and faculty. Senior (4th year and more advanced) students have the option of giving a research seminar or presenting a journal article. One faculty member and one or two students are assigned as “readers” and they are available to answer questions and help with the preparation of the presentation. The readers also provide the student with feedback on the presentation to aid in the development of strong presentation skills and the ability to critically evaluate scientific work.

This Journal Club is facilitated by Dr. Andy Berglund (aberglund@ufl.edu). [Click here for Spring 2017 semester schedule.](#)

#### February Schedule:

<b>February 7</b>	<b>No meeting</b>
<b>February 14</b>	<b>Akilah Murray</b> <b>Journal Article:</b> TBA*
<b>February 21</b>	<b>Rotation Talks</b>
<b>February 28</b>	<b>Boyce Competition Prep</b>

\*Journal articles will be added here once they are determined—check back frequently.

### EPIGENETICS JOURNAL CLUB/GMS 6195

**Thursdays, 12:00–1:00pm, CGRC-351A.**

The Epigenetics Journal Club is facilitated by Dr. Mike Kladde (kladde@ufl.edu) and Dr. Tom Yang (tpyang@ufl.EDU). [Click here for Spring 2017 semester schedule.](#)

#### February Schedule:

<b>February 2</b>	<b>Margaret White</b> Student Readers: Aishwarya Gurumurthy Dorian Vargas-Franco <b>Journal Article:</b> <i>Hypoxia increases genome-wide bivalent epigenetic marking by specific gain of H3K27me3</i> ; <a href="#">link to article</a>
<b>February 9</b>	<b>No Meeting</b>
<b>February 16</b>	<b>Joe Collins</b> Student Readers: Dorian Vargas-Franco and Bihan Wang <b>Journal Article:</b> TBA*
<b>February 23</b>	<b>No Meeting</b>

\*Journal articles will be added here once they are determined—check back frequently.