Welcome to the inaugural issue of the MBI newsletter! This bulletin is designed to inform MBI members of news and events to build connections and ease collaboration. Please send any suggested contributions to Michelle Koidin Jaffee, assistant director of communications, at michelle.jaffee@ufl.edu. Looking forward to hearing from you!

Link between Parkinson's and Muhammad Ali's death?

Michael Okun, M.D., chair of the UF Department of Neurology, shares how he worked with Muhammad Ali during the champ's battle against Parkinson's disease.

Watch the MSNBC interview here:


Read the USA Today story here:


ECT open house at UF Health Shands Psychiatric Hospital

UF Health held an open house at UF Health Shands Psychiatric Hospital in June to showcase the newly developed state-of-the-art Electroconvulsive Therapy suite. ECT is currently used to treat severe depression, treatment-resistant depression, severe mania, depression with psychosis or suicidality and catatonia. A team of experts who have performed thousands
of ECT treatments is now assembled in Gainesville and includes Brent Carr, M.D., Louis Solomon, M.D., Richard Holbert, M.D., and Khurshid Khurshid, M.D.

The doctors and support staff were on hand to talk with guests about the new suite and answer questions about ECT. This team offers customized treatment, matching the best options for each individual to achieve the best possible results.

For more information on ECT at UF Health Shands Psychiatric Hospital, please visit: https://ufhealth.org/electroconvulsive-therapy.

- By Melinda Fawcett
Meet MBI intern
Sophia Eikenberry

By Fabiana Otero

Intern, UF Health Communications

Sophia Eikenberry couldn't wait for college to try to get into a lab at the McKnight Brain Institute.

As a senior at Eastside High in Gainesville, she pursued — and earned — an internship at the MBI last year, and she'll continue this fall as a UF freshman.

Eikenberry has been learning from and assisting Thomas Foster, Ph.D., and his team of undergraduate and graduate students. Foster is a professor and the Evelyn F. McKnight Chair for Research on Cognitive Aging and Memory.

Eikenberry, who has been building an interest in neuroscience since middle school, recently was featured in The Gainesville Sun for her work at the MBI and her perfect score on the ACT college entrance exam. She begins UF as a recipient of the Presidential Platinum Scholarship.

Her interest in neuroscience was sparked when, as a seventh-grader, she played holiday music on her flute for patients at Al'z Place, which provides care for people with Alzheimer’s disease or other severe memory impairment.

"As soon as you played a Christmas song for them, they remembered all the words and the tunes,” Eikenberry said.

In eighth grade, she assisted in the astronomy lab of UF professor Stephen Eikenberry, her father.

Eikenberry later founded the Arts in Medicine club at Eastside High School. Through the club, she traveled to Ecuador with Hands Across the World to distribute art supplies to children undergoing surgery for cleft palates or burn scars.

"Through all those experiences, I think they could see that I was serious about neuroscience," she said. “For me, this wasn’t just something to put on my resume. It’s something I’m passionate about.”

Along with Foster’s team, Eikenberry has been testing whether injecting a virus that makes a protein involved in memory into the hippocampus — a brain region that stores memories — affects memory loss in a rodent model of aging.

Now 18, Eikenberry will be able to take on more advanced roles in the lab when she returns from travels in Europe this summer.
Listen on NPR: How a team of elite doctors changed the military's stance on brain trauma

Michael Jaffee, M.D., (far left) vice chair of the UF Department of Neurology in the McKnight Brain Institute, served on the U.S. military’s Gray Team, which was featured on National Public Radio in June.

Listen here

Awards and Achievements

Sara Burke, Ph.D., of the UF Department of Neuroscience, is a recipient of the 2016 UF Excellence Award for Assistant Professors. The award, given by the Provost’s Office, recognizes excellence in research among junior faculty. The $5,000 award supports research-related expenses.

Carol Mathews, M.D., a professor in the UF Department of Psychiatry, completed the Executive Leadership in Academic Medicine Fellowship Program at Drexel University College of Medicine in April. The program is a yearlong, part-time fellowship for female faculty in schools of medicine, dentistry and public health. Participants are selected based on academic leadership potential; of this year’s 54 fellows, Mathews and Sonal Tuli, M.D., M.Ed., chair of the UF Department of Ophthalmology, represented UF. As part of the curriculum, Mathews is working to develop a future Center of Excellence for Obsessive Compulsive and Related Disorders at UF.

MBI hosts 11 SNIP interns this summer

By Fabiana Otero

Intern, UF Health Communications

Eleven undergraduate interns from across the country are assisting in MBI labs this summer as part of the UF Department of Neuroscience's Summer Neuroscience Internship Program, or SNIP.

The interns, selected from about 100 applicants, showed commitment and desire for a future in research, said Sara N. Burke, Ph.D., SNIP coordinator and an assistant professor of neuroscience.
Each student is working with a faculty sponsor. The sponsors include:

- Kevin J. Otto, Ph.D.
- Jacob Ayers, Ph.D.
- Jennifer L. Bizon, Ph.D.
- Sara N. Burke, Ph.D.
- C. Shawn Dotson, Ph.D.
- Todd E. Golde, M.D., Ph.D.
- Habibeh Khoshbouei, Pharm.D., Ph.D.
- Jada Lewis, Ph.D.
- Jeremy C. McIntyre, Ph.D.
- Lucia Notterpek, Ph.D.
- Barry Setlow, Ph.D.

In addition to gaining hands-on technical experience in the lab, students attend a weekly neuroscience medicine seminar and workshops on research and professional development.

On Aug. 4, students will present posters explaining their summer projects.

One of the goals of SNIP, Burke said, is to encourage the students to feel a part of the research community at UF Health.

SNIP is funded by the MBI, individual mentors, the Alzheimer’s Disease Research Center and the Florida-Georgia Louis Stokes Alliance for Minority Participation.

In the next issue of Florida Physician magazine, due out this fall, look for a letter by Alice Rhoton-Vlasak, M.D., on the legacy of her late father, Al Rhoton Jr., M.D. Known as the “father of microneurosurgery,” Rhoton created and long led the UF Department of Neurosurgery. His loss is felt acutely throughout the UF Health community and the world of neurosurgery. Rhoton died in February at age 83.
In real-time on Reddit, MBI members take questions from the public

Be sure to check out the recent AMAs (Ask Me Anything) on Reddit’s science page featuring UF’s Steven Munger, Ph.D., director of the Center for Smell and Taste, and David Tran, M.D., chief of neuro-oncology.

Reddit AMAs are live, hourlong sessions in which online viewers submit written questions, and experts respond in writing (no audio or video). The sessions tend to be lively discussions on the latest research.

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National MagLab hosts coil-building workshop at MBI

The National High Magnetic Field Laboratory site at the McKnight Brain Institute hosted five scientists from across North America in June to teach the theory and practice of radiofrequency coils.

RF coils are used in MRI to transmit and receive RF signals. The MagLab’s Advanced Magnetic Resonance Imaging and Spectroscopy facility at UF has an entire lab devoted to RF coil manufacture and development, led by RF engineer Malathy Elumalai.

In response to a growing need for visiting scientists to be able to troubleshoot and design their own RF coils, Elumalai is sharing her expertise. Empowering scientists to make their own coils makes sense. The demand for specialized coils has outpaced the rate at which Elumalai can design them. Additionally, sometimes the coils break, causing an experiment to come to a halt.

At the workshop held June 20-24, participants from Mexico, Canada and Chicago learned the physics behind RF coils and underwent training in specialized software for designing and modeling how the coils will behave under different magnetic fields and with different samples. Participants also had the chance to build their own coils and test them in the MagLab’s 4.7 tesla imaging magnet.

Click here to learn more about how MRI machines work. Without RF coils, there’d be no “I” (imaging) in MRI!

The MagLab also offers a User Summer School and a Theory Winter School once a year.

Text and image by Elizabeth Webb, facilities/outreach coordinator, National High Magnetic Field Laboratory

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A chat with Altaf Khan, a participant in the MagLab's coil-building workshop and a doctoral student at the University of Illinois at Chicago.
Khan currently uses MRI to measure wave propagation through tissues to calculate elastic properties.

Q. How did you decide to participate in the workshop?

A. I was referred to the workshop by Richard Magin, Ph.D., (of UIC) who collaborates with UF frequently. As our studies have become more unique, it became evident that we needed to create our own coils that would be specific to our experiments. We needed to design coils with the ability to introduce external equipment without sacrificing coil integrity. When Dr. Magin suggested the workshop, it seemed like the perfect opportunity to expand our research.

Q. What did you learn during the workshop, and how will you apply what you learned in the future?

A. Not only did we learn the art of building an RF coil, we also learned a lot about the basics. Proper soldering techniques and essential health safety practices were extremely useful in making sure we stay safe when building coils. The building of the coils themselves was excellent and we learned several different useful methods that help build a reliable coil. I plan to use this to build coils of our own, adapted for our own purposes.

Q. What was the highlight of the workshop for you?

A. The highlight of the workshop was easily the staff that we worked with. Malathy Elumalai, Josh Slade and Kelly Jenkins were very helpful in every detail of our workshop. Their patience and willingness to teach us made the workshop not only valuable for learning but also enjoyable.

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Don’t miss the Neuromedicine Summer Seminar Series!

Mondays, noon to 1 p.m.

DeWeese Auditorium, MBI

July 11: Jeremy McIntyre, Ph.D., on novel mechanisms of neuromodulation in the olfactory bulb

Matthew Sarkisian, Ph.D., on primary cilia in brain development and brain cancer

July 18: Kaustuv Saha, Ph.D., on alpha-synuclein modulates the activity of dopamine neurons

Gonzalo Torres, Ph.D., novel signaling mechanisms associated with the actions of amphetamine in the brain

July 25: Edgardo Rodriguez, Ph.D., and Marcelo Febo, Ph.D., offer a workshop on "Neuroscience at UF: Applying imaging and molecular tools to study brain diseases"

Aug. 4: Summer Neuroscience Internship Program student poster presentations

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New lab in the MBI?

We would like to spotlight new labs in the MBI. Tell us who you are, where you are and what you do! Write to michelle.jaffee@ufl.edu.