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Center for Biomedical Engineering and Technology - University of Maryland School of Medicine
in conjunction with the Fischell Department of Bioengineering, School of Engineering, University of Maryland, College Park

The Final Push

March was particularly hectic since Dr. Ilia Baskakov moved his laboratory the beginning of the month and the entire administrative suite for BioMET moved on March 24th. Assistant Director Brian Hockenberry, along with Business Manager Jami Kasco, HR Specialist Olivia Sterrett and Accounting Assistant Lynnel Thompson, had been packing up and moving some files for weeks. Along with IT Manager Mike Kelly, they moved into the first floor 111 S. Penn St, now called the General Research Building (GRB). Assistant to the Director Pamela Wright moved to the fifth floor of Pharmacy Hall. Director W. Jonathan Lederer had the most daunting task. He had to divide his office into two parts, with his administrative work going to the GRB but his science moving to Pharmacy Hall. His GRB office is a bit more functional than the one in Pharmacy, and he intends to finish getting that functional before attempting to set up the second office.



Olivia Sterrett in her new office space on Penn Street.

The split leaves Pamela Wright as the administrative presence in Pharmacy, and various processes to deal with the split will be forthcoming. Things like mail have not yet been organized. Until then, everyone is determined to be flexible.

As noted in the last issue of *BioMET Now*, the new vibration tables overcame the building's deficiencies, so eight additional tables were ordered, six for Dr. Lederer, one for Dr. Kao and one for Dr. Karbowski. The delivery schedule was staggered since it had to be coordinated with both the building of frames and the packing and unpacking of the confocal systems by Zeiss. The first of the tables arrived the end March. Dr. Brian Hagen, the confocal facility Program

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BIOMET SCIENTIFIC PROGRAMS

LABORATORY OF
MOLECULAR CARDIOLOGY

LABORATORY OF
NANOBIOLGY

LABORATORY FOR
NEURODEGENERATIVE DISEASES

LABORATORY FOR
PRION DISEASES

PROGRAM IN
CANCER BIOLOGY

PROGRAM IN
CELL STRUCTURE AND
DEVELOPMENT

PROGRAM IN
MITOCHONDRIAL DYNAMICS

Something Missing

Springtime usually brings flowers, showers and BioMET's annual retreat. This year only two out of three were apparent. Since Dr. Lederer's laboratory was just starting their move, one that required significant amounts of time to make happen, there really was no good day to schedule a day off for a retreat. Besides that, the entire Lederer laboratory was involved in the sequential moves of confocal systems and laboratories. They could not have participated in a retreat. So for the first time in ten years, the retreat was put on hold. Whether we will just skip a year or organize one in the fall is still to be decided.



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE



UMB President Jay A. Perman, MD gave his first annual State of the University Address on April 24. The full text can be found at <http://www.umaryland.edu/offices/president/SOTU/pdf/FY14-SOTU-SPEECH-v2.pdf>.

Dr. Perman's remarks were extensive and emphasized the collaboration both within UMB and among USM institutions. He highlighted achievements in all of the various schools that make up UMB. In addition, he went over the accomplishments of the MPowering initiative, particularly UM Ventures, the new joint intellectual property office that coordinates the filing of disclosures and patents. More about the address can be found at <http://www.umaryland.edu/news/?ViewStatus=FullArticle&articleDetail=22626>.

Congratulations to Dr. Robert Fischell, for whom the Department of Bioengineering was named, on being awarded the first Electrical and Computer Engineering Department Heads Association Industry Award for his contributions to engineering and engineering education.



Supporting Our Schools

One of the advantages (or disadvantages) of moving is cleaning out all those old nooks and crannies stuffed with outmoded stuff. When it comes to scientific based items, much of what is left is still very usable, but techniques have advanced passed the need for some equipment and supplies. For example, glass pipets were once ubiquitous, but have now been supplanted by plastic ones. That leaves a lot of glass pipets, and the accessories needed to hold, autoclave and clean them. While modern science laboratories have moved past glass, high schools have not. The trick is making the right connections to move the unwanted items to the school.

Research Coordinator Pamela Wright contacted her son, Tom, who teaches at Randallstown High in Baltimore County. As a history teacher, he does not need much equipment, but he does know the biology teachers in his school. He put his mother in contact with them. Two car-loads later, Randallstown High had enough glass pipets, beakers, and miscellaneous supplies to keep the students going for some time. BioMET's Director, W. Jonathan Lederer, was delighted with the connection.

"This stuff was just going to be tossed out. Modern labs just do not need as much glassware as they used to; we've all gone to plastic for both convenience and scientific consistency," he remarked. "We are thrilled that Pamela found a way to re-use these supplies and support our schools at the same time."

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Congr

BioM
associate
marriage
23. May
together!

Manager, coordinated with the vendors and built the frames. Each table-confocal system required a custom frame.

Lederer Laboratory Manager Cecelia Frederick coordinated the move of Dr. Lederer's main laboratory, scheduled for the last week of April. The now-ubiquitous blue bins (right) supplied by the professional movers had been on site for months, beginning in January as the GRB phase of the move kicked into high gear.

As with all other moves, the chemicals are packed by UMB's Environmental Health and Safety Office several days before the actual move, effectively shutting down all experimentation. Then the movers come in to pack up everything else, though sensitive items had already been moved by laboratory members. The laboratory move also included vacating the offices in Allied Health, where most of the postdocs and students had desks. The furniture there had already been labeled with the room number to which they would be moved. The packing was finished April 30th. The movers are expected May 1.



Impact of Research

UMB held a a day long symposium on March 31 called "Research Impact: A Discussion from Institutional, Economic, and Researcher Perspectives." Organized by the Health Sciences and Human Services Library and Elsevier, the focus was on measuring the impact of scientific communications, ways to measure them, and ways to connect researcher to stakeholders seeking expertise. Part of the discussion was on the current measures used to evaluate the impact of scientific publications, such as h-factor or journal rankings. The consensus seemed to be that there is no good measure at this time. However, since such measures are often included in faculty evaluations, they cannot be ignored.

During lunch, a representative from Elsevier discussed a new database and journal analyzer for scientific literature called Scopus. According to the literature Elsevier provided, Scopus consists of "29 million records, including references, going back to 1995' and "21 million pre-1996 records going back as far as 1823." In addition, "Scopus also integrates, into search results, 545 million scientific web results and 25.2 million patents from 5 patent offices." Scopus is available through the library.

Other speakers talked about other communication tools including Mendeley ("... a free reference manager and academic social network. Make your own fully-searchable library in seconds, cite as you write, and read and annotate your PDFs on any device." <http://www.mendeley.com/>) and expertise databases such as Reach NC, similar to Community of Science for North Carolina. The economic impact was not really addressed fully, which is not surprising. Good measures of economic impact, particularly of basic research, have remained elusive.

Pamela Wright, Assistant to the Director, represented BioMET.

Congratulations!

BioMET congratulates accounting
Lynnel Thompson on her
to Brian Harris on March
you have many happy years

BIOMET HAPPENINGS

Publications

Clerc P, Ge SX, Hwang H, Waddell J, Roelofs BA, **Karbowsky M**, Sesaki H, Polster BM. Drp1 is dispensable for apoptotic cytochrome c release in primed MCF10A and fibroblast cells but affects Bcl-2 antagonist-induced respiratory changes. *Br J Pharmacol*. 2014 Apr;171(8):1988-99.

Rosen GM, Muralidharan S, Zavalij PY, **Kao JP**. Dimethyl 5-acetyl-1-hydroxy-4-methyl-1H-pyrrole-2,3-di-carboxyl-ate, an oxidation-resistant N-hydroxy-pyrrole. *Acta Crystallogr Sect E Struct Rep Online*. 2014 Jan 4;70(Pt 2):o110-1.

Mattison HA, Popovkina D, **Kao JP**, Thompson SM. The role of glutamate in the morphological and physiological development of dendritic spines. *Eur J Neurosci*. Epub 2014 Mar 24.

Watkins PV, **Kao JP**, Kanold PO. Spatial pattern of intra-laminar

connectivity in supragranular mouse auditory cortex. *Front Neural Circuits*. 2014 Mar 11;8:15.

Grants and Contracts

Submissions

W. Jonathan Lederer, 3/12/14, The IMET-Partner Institutions Seed Grant Program, Total Request: \$50,000

Mervyn Monteiro, 3/19/14, NIH, "Studies of ubiquitin-2 mutations that cause ALS," Total Request: \$2,855,277.

Talks and Travels

Dr. Ilia Baskakov, Invited Speaker, "What do protein aggregation and Darwinian evolution have in common?" Uniformed Services University of the Health Science, Bethesda, MD, March 26, 2014.

Dr. W. Jonathan Lederer, Cairns Research Keynote Lecture, "Mechano-chemo signal transduction in the heart: a new signaling pathway," Northern Cardiovascular Research Group 22nd Meeting, University of Manchester, April 8, 2014.

MPower Update

Editor's Note: While BioMET may not participate in all activities relating to the new initiative, the success of the entire enterprise benefits everyone. Thus, all activities of the new initiative will be highlighted in BioMET Now. As before, all members of the BioMET community are encouraged to look at the MPower web site at mpowermaryland.com for current information.

UM Ventures, part of the MPowering the State initiative, along with Maryland Innovation Initiative, sponsored another seminar aimed at highlighting inventions and entrepreneurial effort within the system and increasing awareness of the practical applications that research can achieve. Dr. Don L. Devoe, UMCP, spoke on "Nanofluidics & Nanoparticles for Medical Application" on April 24.

As noted on page 2, UMB President Perman also discussed the MPowering initiative in his State of the University Address, also on April 24.

The View from Above

One of the nice features of our new space is the overhead projectors in the conference rooms. These high definition projectors are equipped with several connection options, including HDMI. They are also wireless, though wired connections are also available.

IT Director Mike Kelly has instructions both for direct connections (VGA and HDMI) and wireless via the local network. While the projector is overhead, there are wall connections in each room. Both wire and wireless require that the Epson projector software be installed on your laptop, iPad or phone (yes, you can use your smart phone!). You would have to download the app for your phone, but the installation files for both Windows and Mac platforms are on our departmental



shared server, the \\D1 or S: drive. See the Epson Projector folder. The instructions are also there. Mike has written very detailed instructions that should make it easy for everyone to get connected.

