

EDITOR'S NOTE: THIS IS THE
SHORT SUMMER VERSION OF
THE NEWS LETTER.

NOV BioMET

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

End of an Era

The former home of BioMET and its earlier incarnation as the Medical Biotechnology Center (MBC) was formally turned over to the President's office on August 19, 2014. The building (seen left) had been renovated for the MBC, then part of the University of Maryland Biotechnology Institute, opening in 1996. For some BioMET faculty, the laboratories they worked in there were the first laboratories of their careers. For others, they represented nearly 20 years worth of work, exciting discoveries and mentoring young scientists.



The building had originally been a warehouse for Hutzler's Department Store (see below), a Baltimore based retailer that closed in the 80's. It had been built in the early part of the 20th century, but by the 80's had been re-purposed several times and was empty when it was first identified as a possible home for MBC. It took from 1989 to 1991 to procure the building and then another three years to secure state funds to renovate it into a state of the art facility. The formal ground-breaking took place in May, 1994.

The design and construction oversight fell mostly to MBC's (and BioMET's) first Assistant Director, Tim Hughes, and the man he hired to be the facilities manager, Mike McCrea. Since both men had science backgrounds, the resulting facility was one of the most research friendly buildings in the area. It was a joy to work in, but was super efficient and flexible for a wide range of research activities. While the finishing touches were still being applied, the first residents moved in the beginning of 1996. For more information about the early years of the MBC and its building, see *Inside MBC Retrospective*, Vol. 1, No. 1.

Because the building had been designed for specific and highly specialized, highly technologically challenging research, it made the move to other locations far more difficult. Since the current residents do not need such specialized facilities, they will probably find re-adapting the space problematic.

While moving is always difficult, the work continues, with many exciting on-going projects. The BioMET faculty will continue to do what they do best, innovative and challenging research, no matter where they are housed.



BIOMET SCIENTIFIC PROGRAMS

LABORATORY OF
MOLECULAR CARDIOLOGY

LABORATORY OF
NANOBIOLOGY

LABORATORY FOR
NEURODEGENERATIVE DISEASES

LABORATORY FOR
PRION DISEASES

PROGRAM IN
CANCER BIOLOGY

PROGRAM IN
CELL STRUCTURE AND
DEVELOPMENT

PROGRAM IN
MITOCHONDRIAL DYNAMICS



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

BIOMET HAPPENINGS

Comings and Goings

Congratulations to Dr. W. Jonathan Lederer on the birth of his first grandchild, a girl, born to his daughter Miriam.

Publications

Chen Z, Ballar P, Fu Y, Luo J, Du S, **Fang S**. The E3 ubiquitin ligase gp78 protects against ER stress in zebrafish liver. *J Genet Genomics*. 2014 Jul 20;41(7):357-68.

Mattison HA, Bagal AA, Mohammadi M, Pulimood NS, Reich CG, Alger BE, **Kao JP**, Thompson SM. Evidence of calcium-permeable AMPA receptors in dendritic spines of CA1 pyramidal neurons. *J Neurophysiol*. 2014 Jul 15;112(2):263-75

Grants and Contracts

Awards

Dr. B. Maura Greiser, 7/1/2014, AHA Scientist Development Award, "Altered Mechano-Transduction as a Novel Arrhythmogenic Mechanism in Atrial Fibrillation," \$77,000, yr 1 of 4.

Dr. Iliia Baskakov, 8/1/14, NIH, "Elucidating molecular structure of mammalian prions," \$346,981, yr 3 of 5.

Dr. Mariusz Karbowski, 8/1/14, NIH, "Control of mitochondrial proteostasis by AAA-ATPase p97," \$291,650, yr 2 of 4.

Submissions

Dr. Liron Boyman, 7/24/14, AHA Scientist Development, "Mitochondrial Calcium signaling in heart: physiological and pathophysiological implications," Total Request: \$308,000.

Dr. Mariusz Karbowski, 7/7/14, NIH, "The role of mitochondria-associated RING finger proteins in mitochondrial quality," Total Request: \$1,918,750.

Talks and Travels

Dr. W. Jonathan Lederer, Annual Advisory Committee Meeting, Totman Trust, University of Vermont, July 21, 2014.

Dr. W. Jonathan Lederer, Invited Speaker, "X-ROS signaling in the Heart," Mark T. Nelson International Symposium on Ion Channels, University of Vermont, July 24-25, 2014.

Kuali Kaboshed

Grant submissions at UMB had been organized and tracked via a system called Coeus, originally developed by MIT, but now run as a consortium of universities. This system was Java based and regularly had issues whenever Java was updated. The university, along with its other institutional partners, has been looking at a major upgrade in Coeus called Kuali Coeus. The new system would be html based leading to less problems, particularly for Apple users. While Kuali has been in beta testing on campus for sometime, the full roll out was scheduled for July 1, just before the July 7th deadline for NIH proposals. Given that many users had not yet begun training, there was considerable push-back from UMB users of the system. In addition, the actual link between Kuali and NIH grants.gov had yet to be tested. NIH disallows institutions to submit proposals for test purposes. Cooler

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.

Former UMBI researcher Frank Robb has been in the news with a new partnership with Fina Biosolutions of Rockville, MD to develop new vaccine manufacturing methods. Dr. Robb is an expert in extreme environment microbiology. The intellectual property arm of MPowering, UM Ventures announced the collaboration in July. More information can be found on the MPowering web site. Of all the initiatives associated with MPowering, UM Ventures has been one of the most successful. It replaced the originally separate technology transfer offices of UMB and UMCP with one more comprehensive office. This makes it easier for both faculty and companies to find each other.

heads must have prevailed because full roll out was delayed to September 1.

At BioMET both Brian Hockenberry and Pamela Wright began Kuali training. In many ways Kuali is an improvement. Kuali does have some advantages over Coeus. It is web based, so that Java errors whenever Java updated have been eliminated. Uploads are all under one tab so there is no more searching for the exact spot to upload a document. Adding line items to budgets is still time consuming, however syncing to a modular budget is really easy in Kuali. This is a big improvement. The link to grants.gov is also improved, and the list of uploads now reflects the actual grants.gov package when the link is made. This is also an improvement. The validation process is also much improved, and errors are found and corrected more easily.

Kuali does have its drawbacks. There are way too many tabs and drop-down sections, so it is easy to forget to do something or where something has to be inserted. If you forget to press the add button in some sections, everything is lost. Since a lot of information comes over from HR, that information must be scrutinized well, since many errors are often from that system. In addition, collaborators are usually brought in via what used to be called the rolodex and is now called the address book. UMB now limits who can add individuals, unlike before. If an individual is put in wrong that can cause errors. However, they can be corrected in Kuali itself. The approval process is also far more time consuming, since the approver must allow the proposal to load in its entirety before pressing the approve button. At UMB the load time is slow. In addition, there have been reports of an issue with the order of approvals that may not match the order in Coeus. As with any new system, there will be bugs and over time these will be corrected. In the meantime, Sponsored Programs Administration, along with Team Red who handles BioMET proposals, have been wonderfully available to answer questions.