

BACK:

- PARTNERS' NEWS
- BIOMET HAPPENINGS
- MPOWER UPDATE

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



UNIVERSITY of MARYLAND  
SCHOOL OF MEDICINE

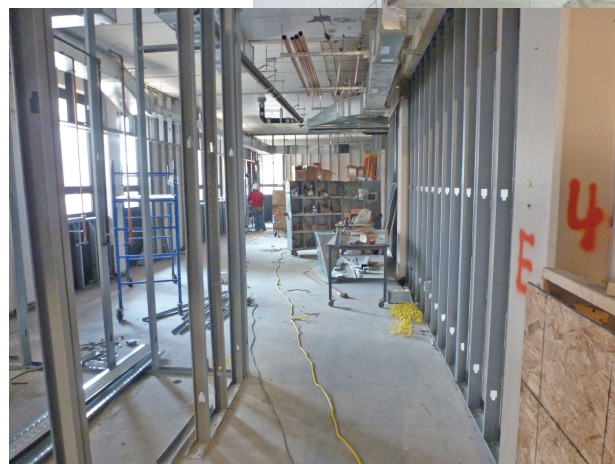
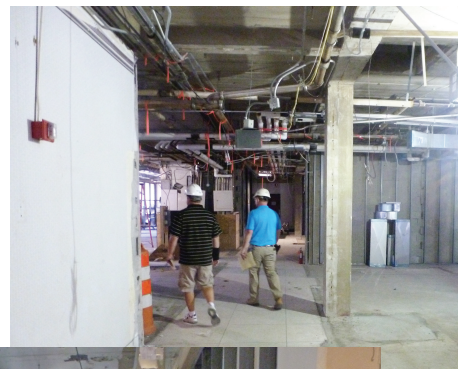
## Summer Interns

The summer intern program has started. BioMet is again hosting students from the Fischell Department of Bioengineering, as well as several other institutions. Yasmin Kadry, UMCP Bioengineering, returned to Dr. Ilia Baskakov's laboratory to continue her work on prions. Kristina Dziki, also from Bioengineering, is working with Dr. Mervyn Monteiro. Meghan Loughery and Lindsey Petrelle are also Bioengineering students who are with Dr. Mariusz Karbowski, along with Akira Shepherd, a chemical Engineering major from Montgomery College who plans on transferring to the Fischell Department. Andrew Wescott, an MD PhD student at UMB, is doing an internship and rotation with BioMET Director Dr. W. Jonathan Lederer. Finally, Stephen Sims from Reservoir High School in Howard County is working with Dr. Joseph Kao. This year's crop of young people has yet again demonstrated the quality of students in USM, and in particular the Fischell Department of Bioengineering.

Unfortunately, this year BioMET could not hold a luncheon in honor of the interns. The moving schedule precluded such an event.

## GRB Renovations Started

The Pharmacy South space is finished and Drs. Kao, Karbowski and Monteiro have finished moving. Dr. Lederer's move into Pharm South has begun, but that is not expected to be completed until October. Now the focus has shifted to the renovations in the General Research Building. This renovation is very different since the first and third floors were completely gutted. Actual work on the building began on July 1. By mid-August, a significant amount of new duct work was in, and the wall framing started. Completion is expected by the end of the year.



# BIOMET HAPPENINGS

## Honors

**Dr. Guiling Zhao** was appointed an adjunct professor in the Department of Life Sciences, Heze University, Shandong, China.

## Comings and Goings

Javier Alberto Martinez Fernandez, a graduate student from CSIC, Madrid, Spain, visited Dr. Baskakov's laboratory.

## Publications

Ward CW, Prosser BL, Lederer WJ. Mechanical stretch induced activation of ROS/RNS signaling in striated muscle. *Antioxid Redox Signal*. 2013 Aug 25. [Epub ahead of print]

Liu C, Zhong Y, Apostolou A, Fang S. Neural differentiation of human embryonic stem cells as an in vitro tool for the study of the expression patterns of the neuronal cytoskeleton during neurogenesis. *Biochem Biophys Res Commun*. 2013. Epub 2013 Aug 11. P

## Grants and Contracts

### Awards

**Dr. W. Jonathan Lederer**, 6/1/13, Ferring Research Institute, Inc, Research Services Agreement, \$29,500.

**Dr. Guiling Zhao**, 7/1/13, AHA, "IP3RI activates Ca<sup>2+</sup>-activated K<sup>+</sup> channel through direct coupling in arterial smooth muscle cells," \$77,000, yr 4 of 4.

**Dr. Ilia Baskakov**, 8/1/13, NIH, "Elucidating molecular structure of mammalian prions," \$359,890, yr 2 of 5.

**Dr. Benjamin Prosser**, 8/1/13 NIH, "Stretch-dependent X-ROS signaling: implications for cardiomyopathy," \$134,730, yr 2 of 5.

**Dr. Mariusz Karbowski**, 8/1/13, NIH, "Control of mitochondrial proteostasis by AAA-ATPase p97," \$281,442, yr 1 of 4.

**Dr. Ilia Baskakov**, 8/1/13, NIH, "Elucidating molecular structure of mammalian prions," \$338,220, yr 2 of 4.

### Submissions

None.

## Talks and Travels

**Dr. Guiling Zhao**, invited talk, "Calcium signaling in cardiovascular myocytes," Department of Life Sciences, Heze University, Shandong, China, July 13, 2013.

**Dr. Ilia Baskakov**, invited talk, "What do protein aggregation and Darwinian evolution have in common?" 2013 Colorado Protein Stability Conference, Breckenridge, CO, July 9, 2013.

**Dr. W. Jonathan Lederer**, advisory board, Totman Trust, University of Vermont, July 23, 2013.

**Dr. W. Jonathan Lederer**, collaboration meeting, Georg August University, Goettingen, Germany, August 23-26, 2013.

**Dr. W. Jonathan Lederer**, Annual ENAFRA meeting, Maastricht, Netherlands, August 27-29, 2013.

# PARTNERS' NEWS



UMCP

Former members of UMBI continue to be recognized as leaders in their fields. Fischell Department of Bioengineering and Institute for Bioscience & Biotechnology Research professors William E. Bentley (former UMBI Professor) and Gregory F. Payne (former UMBI Center Director) were invited to write a column for *Science* in the journal's *Perspectives* section. The *Perspective* section has comments on current articles in the same issue. Prominent scientists are asked to comment on one or more articles and discuss the broader significance.



UM School of Medicine Dean E. Albert Reece had some unusual co-authors for *Viewpoint* article published in the July 17th issue of the *Journal of the American Medical Association* (JAMA), Lieutenant Governor Anthony G. Brown, J.D.; and Secretary of the Maryland Department of Health and Mental Hygiene Joshua M. Sharfstein, M.D. The article discusses Maryland's innovative health disparities initiatives.

## MPowering 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](http://mpowermaryland.com) for current information.*

Part of the mission for MPowering is closer ties between the two major campuses. On July 29, a new initiative was announced that can be used by everyone on both campuses. UMB and UMCP have agreed to share recreational facilities. This applies to both students and staff. Though staff still have to purchase membership at UMB.

In July, MPowering sponsored an interactive seminar entitled "Innovation at the Intersection of Engineering and Medicine." This part of the series, *Innovation to Stimulate the Brightest Minds from the University's Baltimore and College Park Campuses*. The seminar was held at the University of Maryland BioPark.

Editor and Designer: Pamela B. Wright  
Assistant Editor: Brian Hockenberry

Publisher: W. Jonathan Lederer, Director BioMET  
Assistant Publisher: Joseph Kao, Associate Director BioMET

Contact us at: [pbwright@umaryland.edu](mailto:pbwright@umaryland.edu)  
or 1-410-706-8181

BioMET  
725 West Lombard Street, Rm 340  
Baltimore, MD 21201 USA

Back issues of *BioMET NOW* are available on the web at: <http://biomet.umaryland.edu>

©Center for Biomedical Engineering and Technology All rights reserved.