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## Newest USM Regent Visits

MBC was delighted to host a visit from the newest member of the University System of Maryland's Board of Regents, Mr. Barry P. Gossett. Mr. Gossett was appointed to the Board in February. Mr. Gossett has been actively engaged with the University of Maryland College Park Foundation, along with a wide variety of other charitable and civic activities. He is currently Chairman and CEO of Acton Mobile Industries, a local business specializing in mobile office trailers.

As a new Regent, Mr. Gossett is acquainting himself with all the institutions within the system. After an earlier visit with UMBI President Jennie Hunter-Cevera and a tour of COMB, he was eager to visit the other centers. He visited CARB, before coming to the MBC on August 14.

During his two hour visit, Regent Gossett received an overview of the MBC by Directory Dr. W. Jonathan Lederer, who also talked about his laboratory's work on molecular cardiology and heart failure. Mr.

Gossett then heard about nanobiology from Dr. Joseph Kao. The last presentation was by Dr. Mervyn Monteiro on work in neurodegenerative diseases, including Alzheimer's and Huntington's. Assistant Director Tim Hughes then gave Mr. Gossett a tour of the building.

Mr. Gossett was also greeted by President Jennie Hunter-Cevera and Mr. David Bobbitt, Vice President for Institutional Affairs, who were here for the early part of the visit.

MBC is always eager to discuss the exciting research going on in our laboratories, especially to those who care about the future of the entire University System.



## Morning Mystery

The morning of August 15 didn't start out the way Facilities Manager Mike McCrea is used to! Mike arrives at 6 am and usually a deserted plaza is the first thing he surveys, but this morning yellow tape, commonly reserved for crime scenes, greeted him.

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*Surrounded by yellow tape, the destruction of one lamp post and two benches, as well damaged cement and landscaping, is clearly visible.*

## NIST/UMBI MOU Signed

UMBI signed a Memorandum of Understanding (MOU) with the National Institute for Standards and Technology (NIST) on August 7, 2007. NIST has had a long standing relationship with CARB. With this new MOU, the relationship is extended to all of UMBI. MBC Associate Director Joseph Kao represented the MBC at the signing.

## New Grants Specialist at ORD

The Office of Research and Development (ORD) announced the appointment of Lois Deve as a Grants Management Specialist. She replaces Stan Jackson, who took a position at COMB. Ms. Deve will be responsible for submitting grants online, as well as making sure that they are complete and ready for submission.

## Congressman Visits UMBI

US Congressman John Sarbanes from Maryland's Third District visited UMBI Central on August 22. UMBI is listed for NIH purposes as within his district. In addition to presentations given on other UMBI programs and a tour of COMB, Director Dr. W. Jonathan Lederer gave the congressman, who has an interest in education and healthcare, an overview of the MBC and its research areas.

## New UMBI Web Site Unveiled

The long awaited updated UMBI web site was finally published on August 17, 2007. The massive restructuring of the site, including the center sites as well, had taken much longer than expected. The site, as well as a new branding effort, is expected to bring visual cohesion to the institution. In the past, centers were left largely on their own to develop logos and web sites with only minimal effort to associate the center with the institution. The confusion, both publicly and within the University System, between the centers and the institution made efforts to raise money and recognition difficult. With a more cohesive presentation of the institution and the centers, it is believed that everyone will benefit.

The web site redesign was handled primarily by UMBI's Director of Communications Gene Levinson, with some input from a Web Design Task-force made up of representatives from all the centers. MBC Webmaster Pamela Wright and graduate student Andy Ziman represented the MBC. The content in the new web site will be able to be modified easily using a new content management system based on templates called Joomla. Anyone will be able to generate content, after some training, making it easier to update the site. All content, however, will be reviewed by center designated content managers for both grammar and appropriateness.

This external site is the first part of the process. UMBI will be developing an internal site to link central administration with all the centers, hopefully to increase the efficiency of administrative operations. It is not clear at this time how the center based internal links, as MBC had for the MBC directory and other documents, will be handled.

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Dr. Valeriy Lukyanenko represents the MBC in the pictorial montage UMBI's home page.

### Congratulations!

Dr. Brian Hagen, a postdoctoral fellow in Dr. W. Jonathan Lederer's laboratory, has won a travel award from The Physiological Society in London. He will be using it to attend two international meetings in September where he has been selected to give oral presentations.



# First for Fang

There are many milestones in an academic career, but one of the most gratifying can be the sending forth of one's first graduate student upon completion of his or her degree. August witnessed that milestone for Dr. Shengyun Fang, as he presided over the thesis defense of Petek Ballar on August 16. Ms. Ballar's thesis was entitled "Role of a Novel p97/Valosin-containing Protein-interacting Motif of gp78 in Endoplasmic Reticulum-associated Degradation."

Ms. Ballar, who comes from Turkey, was not the first student to start with Dr. Fang, Ms. Andria Apostolou joined Dr. Fang's laboratory a few months earlier. However, Petek managed to finish a few months ahead of Andria, though both students have been extraordinarily productive. In three and a half years, Petek has had eight publications and 11 abstracts, two of which were selected for oral presentations.

Besides support from Dr. Fang's grants, Petek was the recipient of a four year scholarship from the Turkish Council for Higher Education, through the University of Ege. She is expected to return to the university to teach this coming fall. Over her tenure here, she has also won a travel award to the American Society of Biochemistry and Molecular Biology, a Graduate Merit Award from the University of Maryland Baltimore (UMB), and the UMBI Student Distinguished Service Award.

"I am really lucky to have such a great student. She is smart and worked very hard," said Dr. Fang. Dr. Fang himself has not been here very long, having joined the MBC faculty in 2002. It is a tribute to his own productivity and mentoring capabilities that his first students have been so successful.

Graduate students at UMBI actually matriculate at the University of Maryland Baltimore in the Graduate Programs in Life Sciences. Petek was in the Molecular Medicine Program with which Dr. Fang is associated. MBC faculty have secondary appointments at UMB so they can teach and have graduate students, though UMBI does not require them to do so.

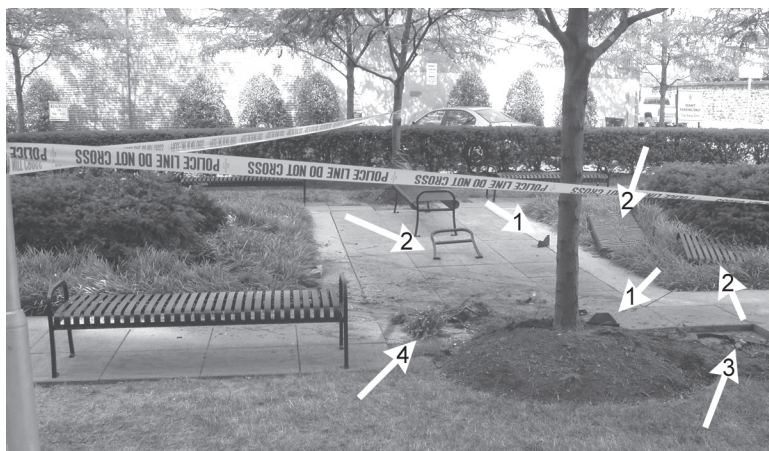


*Dr. Shengyun Fang, left, with now Dr. Petek Ballar.*

## Mystery continued

A quick call to the University Police filled in the details. It seems that late the previous night, a car driven by a young woman (allegedly on a cell phone) crossed the left hand lane, jumped the curb and came to rest in the yews located in the center of the plaza, taking out one lamp post and two metal benches in the process. Though the driver alleged that she was sideswiped, the police indicated that there was no evidence of it on her car and no skid marks were visible anywhere.

The damage to the plaza will be noticeable for some time, though the missing lamp post was replaced almost immediately and the benches rearranged to fill in the gaps. However, the landscaping will take longer to recover. At this time, it is not clear what the outcome for either the MBC or the driver will be.



*Evidence of the crash include: 1. Pieces from the car, 2. Parts from the benches; 3. Torn up cement sections; and 4. Torn off yew branches. Scrape marks from the car removal are much in evidence but no skid marks can be seen, even in the street.*

## MBC Happenings

### Comings and Goings

MBC welcomes Oliver Henry Vogel who was born to Dr. Bruce Vogel and his wife on August 7. **Dr. Leyla Teos** has joined Dr. W.J. Lederer's laboratory as a postdoctoral fellow.

### Grants and Contracts

**Dr. Ilia Baskakov**, 7/1/07, NIH, "Self-propagating Mechanism of Prion Disease," \$300,000, Yr 1 of 5.

**Dr. Julio Altamirano**, 7/1/07, AHA, "Spontaneous Ca Sparks and the Regulation of the Sarcoplasmic Reticulum Ca Leak in Cardiac Myocytes," \$35,000, yr 1 of 2.

**Dr. Kadir Aslan**, AHA, 7/1/07, "Rapid Cardiac Risk Assessment in a Clinical Setting," \$66,000, yr 1 of 4.

**Dr. Shengyun Fang**, NIH, "Novel Functions for gp78 in ER-associated degradation," \$281,610, Yr 4 of 5.

### Publications

Previte MJ, **Geddes CD**. Microwave-triggered surface plasmon coupled chemiluminescence. *J Am Chem Soc*. 2007 Aug 15;129(32):9850-1.

**Lukyanenko V**, Ziman A, Lukyanenko A, Salnikov V, **Lederer WJ**. Functional groups of ryanodine receptors in rat ventricular cells. *J Physiol*. 2007 Aug 15;583(Pt 1):251-69.

Hepburn MJ, Hugh Dyson E, Simpson AJ, Brennen KE, Bailey N, Wilkinson L, Hornby R, Mateczun AJ, Bell MG, **Baillie LW**. Immune response to two different dosing schedules of the anthrax vaccine precipitated (AVP) vaccine. *Vaccine*. 2007 Aug 10;25(32):6089-97.

**Wang H, Monteiro MJ**. Ubiquitin interacts and enhances the degradation of expanded-polyglutamine proteins. *Biochem Biophys Res Commun*. 2007 Aug 24;360(2):423-7.

**Baskakov IV**. Branched chain mechanism of polymerization and ultrastructure of prion protein amyloid fibrils. *FEBS J*. 2007 Aug;274(15):3756-65.

Ford DL, **Monteiro MJ**. Studies of the role of ubiquitination in the interaction of ubiquitin with the loop and carboxyl terminal regions of presenilin-2. *Biochemistry*. 2007 Jul 31;46(30):8827-37.

**Wang H, Monteiro MJ**. Ubiquitin overexpression reduces GFP-polyalanine-induced protein aggregates and toxicity. *Exp Cell Res*. 2007 Aug 1;313(13):2810-20.

Weaver J, Kang TJ, Raines KW, Cao GL, Hibbs S, Tsai P, **Baillie L**, Rosen GM, Cross AS. Protective role of *Bacillus anthracis* exosporium in macrophage-mediated killing by nitric oxide. *Infect Immun*. 2007 Aug;75(8):3894-901.

Gyorke S, Hagen BM, Terentyev D, **Lederer WJ**. Chain-reaction  $\text{Ca}^{2+}$  signaling in the heart. *J Clin Invest*. 2007 Jul;117(7):1758-62.

**Karbowsky M**, Neutznier A, Youle RJ. The mitochondrial E3 ubiquitin ligase MARCH5 is required for Drp1 dependent mitochondrial division. *J Cell Biol*. 2007 Jul 2;178(1):71-84.

Zhang Y, **Aslan K**, Previte MJ, **Geddes CD**. Metal-en-

## IHV Officially Moves

On July 1 the Institute of Human Virology (IHV) officially became part of the University of Maryland School of Medicine, though there was little evidence of it in the building. Part of the deal that was made allows the IHV to remain in UMBI's Medical Research Facility (MRF) for three years.

There were changes that have affected the MBC, primarily those faculty who use animals in their research. As part of the arrangement, the animal facility housed in the MRF will come under the University of Maryland Baltimore's purview. Thus, as currently approved animal protocols come up for renewal, they will now be vetted to UMB's Animal Care and Use Committee, not UMBI's. The first of these has already been completed. Dr. W. Jonathan's Lederer's protocols were up for renewal in August. UMB's Animal Care and Use Office (ACUO) was very helpful in making the transition, but their rules and ways of doing things are somewhat different than UMBI's were and MBC faculty may find that their protocols may have to be modified to meet UMB's requirements.

Ongoing collaborations with IHV faculty have not been affected yet and the MBC looks forward to continuing to work with their former UMBI colleagues, though some paperwork may be necessary. Some IHV faculty have retained ties to UMBI. Dr. Anthony Devico was recently appointed as an Affiliate Professor in the MBC.

As time goes on and the IHV becomes more UMB oriented, additional changes will undoubtedly be noticed, however the MBC continues to function as usual.

hanced Singlet Oxygen Generation: A Consequence of Plasmon Enhanced Triplet Yields. *J Fluoresc*. 2007 Jul;17(4):345-9.

Novitskaya V, Makarava N, Sylvester I, Bronstein IB, **Baskakov IV**. Amyloid fibrils of mammalian prion protein induce axonal degeneration in NTERA2-derived terminally differentiated neurons. *J Neurochem*. 2007 Jul;102(2):398-407.

Sobie EA, **Kao JP, Lederer WJ**. Novel approach to real-time flash photolysis and confocal  $[\text{Ca}^{2+}]$  imaging. *Pflugers Arch*. 2007 Jul;454(4):663-73.

### Talks and Travels

**Dr. Chris Geddes**, Invited Speaker, Board of Directors, MedImmune, Gaithersburg, MD, "Microwave Accelerated Plasmonics," July 9, 2007.

**Dr. Chris Geddes**, Invited Speaker, Biotage, Inc, Charlottesville, VA, "Microwave Accelerated Metal Enhanced Fluorescence," July 19, 2007.

**Dr. Bruce Vogel**, Invited Speaker, Gordon Conference on Elastin and Elastic Fibers, New England University, Biddeford, Maine, "Molecular Genetics of Elastic fiber-like structures in *C. elegans*," July 29-August 3, 2007.