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Volume 11, Supplement Annual Retreat Issue MEDICAL BIOTECHNOLOGY CENTER -UNIVERSITY OF MARYLAND BIOTECHNOLOGY INSTITUTE

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Top: Tulips galore! Right: Octagon House

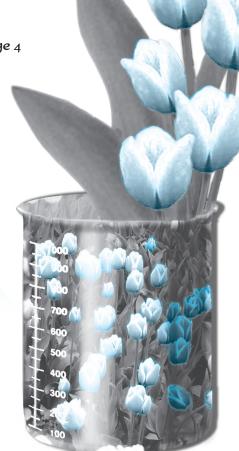
## **Mount Washington Proves Delightful**

The Medical Biotechnology Center changed venues for the sixth annual retreat. After having spent the last two years at Turf Valley in Ellicott City, Tim Hughes and Pamela Wright, the perennial organizers, looked for something closer to the city and easier to get to for those without cars. The Mount Washington Conference Center just off of Northern Parkway seem to fit the bill.

The Conference Center is run by Johns Hopkins University and has a variety of rooms available. The MBC met in a small lecture hall, more amenable to lap tops and note-taking than flat dining areas.

The weather cooperated and both the warm weather and the spring flowers lured participants outside during the

breaks. The grounds are a mixture of historic buildings, having been both a convent and a school over a hundred years ago, and modern structures as a former corporate campus and now a mixture of continued page 4



### MBC Retreat 20

MIDC NEtreat 20		
Time	Presenter	
8:00-8:50am		
8:50-9:00	W. Jonathan Lederer	Welcome
9:00-9:20	Xuehong Xu	Hemicent
9:20-9:40	Chris Geddes	Metal-enl
9:40-10:00	Julio Altmirano	How doe: reticulum
10:00-10:45		
10:45-11:05	Mariusz Karbowski	A novel E apoptosis
11.05-11:25	Precious Lim	Tale of tw
11:25-12:05	Zvi Kelman CARB	Unwindir
12:05-1:30		
1:30-1:50	Ilia Baskakov	Prion con
1:50-2:10	Andrew Ziman	Alteration
2:10-2:50	Yu Chen UMCP	High-reso Tomogra
2:50-3:35		
3:35-3:55	Hui Yang	Huntingti disease p
3:55-4:15	Scott Burks	In vivo im
4:15-4:55	Robert Bloch UMB	Obscurin Intracellu



#### Robert Bloch Professor, UMB

Dr. Bloch's research focuses on three sets of structural proteins that organize membranes whose roles in excitYu Che

**Assista** 

Dr. Chei

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on mole

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able cells have not yet been elucidated -- the spectrin, ankyrin and titin superfamilies. Research looks at how members of these protein families are linked to human diseases, including muscular dystrophy.

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#### 008 Schedule

#### Title

#### Arrival/Continental Breakfast

tin's function in mouse early embryogenesis

hanced Fluorescence: A new era in fluorescence spectroscopy

s the diastolic calcium sparks frequency depend on the sarcoplasmic

calcium content in mouse cardiac cells?

#### Break (45 min)

3 ubiquitin ligase controls proteasome-dependent turnover of Bax and

o proteins: Functional studies on ubiquilin and erasin

ng the functions of MCM

#### Lunch (85 min)

version in a tube: insight into origin of prion strains

ns in SR structure and function during cardiac development

olution and three-dimensional imaging using optical coherence ohy (OCT)

Break (45min)

in interacts with the gp78-VCP complex: implication in Huntington's athogenesis

aging through electron paramagnetic resonance (EPR)

and Small Ankyrin: Organizing the Cytoskeleton and

lar Membranes in Striated Muscle



#### nt Professor, UMCP

n specializes in biomedical imaging, particularly optical nce tomography (OCT) and coherence microscopy (OCM). tions for his research center ecular imaging, early cancer sis and neuroimaging.





#### Zvi Kelman Associate Professor, CARB

The focus of Dr. Kelman's research is to elucidate the mechanism of initiation of DNA replication in archaea and other microorganisms using a combination of biochemical, biophysical and structural approaches, especially the mechanism of chromosomal DNA replication in *Methanobacterium thermoautotrophicum*.



Hopkins offices and meeting rooms.

MBC Director Dr. W. Jonathan Lederer opened the proceedings as usual. He passed the microphone to Dr. Xuehong Xu from the Program in Cell Structure and Development who spoke on his work on hemicentin in embryogenesis. Focus switched to plasmons and metal enhanced fluoresce presented by the head of the Institute of Fluorescence, Dr. Chris Geddes. Dr. Geddes was followed by Dr. Julio Altamirano, Institute of Molecular Cardiology, who reviewed his work on calcium sparks in heart.

An extended break after the first three speakers allowed for chatting, coffee and a short stroll. The retreat schedule restarted with Mariusz Karbowski, MBC's newest faculty member, who spoke on mitochondrial ubiquitin ligases. He was followed by one the MBC's newest graduates, Dr. Precious Lim, from the Institute for Neurodegenerative Diseases, who shared her thesis work on ubiquilin and earasin, two proteins involved in a number of neurodegenerative diseases. Our first outside speaker, Dr. Zvi Kelman from UMBI's Center of Advanced Research in Biotechnology, introduced us to DNA transcription in the Archaea.

Lunch was well done in a nicely appointed buffet area, followed by more time in the sun. The retreat schedule has developed over the past six years to include plenty of time for interaction.

Associate Professor Ilia Baskakov opened the afternoon session bringing his colleagues up-to-date on his work on prion conversion in vitro. He was followed by Dr. Andrew Ziman, a postdoctoral fellow in the Institute of Molecular Cardiology who spoke on cardiac development. That brought up our second guest speaker, Dr. Yu Chen an imaging expert from University of Maryland College Park who amazed the audience with his real-time *in vivo* imaging techniques.

The last break of the day saw many more people outside to enjoy a bit more sunshine before heading back in for the last session which started with Dr. Hui Yang from the Program in Cancer Biology. Despite the program name, she spoke about her work on Huntington's Disease. The only graduate student to talk was Scott Burks from the Institute of Nanobiology and Dr. Joe Kao's laboratory. His clear, well spoken presentation brought everyone up-to-date on the exciting collaborative effort on a new mode of medical imaging, EPR.

The final talk was by the final guest speaker, Dr. Robert Bloch from the University of Maryland Baltimore. Dr. Bloch is well known to many at the MBC, both as a long time collaborator of Dr. Lederer's but also as head of a training grant in the Department of Physiology which has supported many MBC students. Dr. Bloch spoke on his work on structural proteins in muscle. It was a great ending to another great retreat.





Top: Valeriy Ostapchenko enjoys the sunshine. Next: Pamela Wright, Tim Hughes and Dr. Yu Chen mingle on the terrace. Below: More terrace talk. Bottom: The Geddes' laboratory relaxes.



