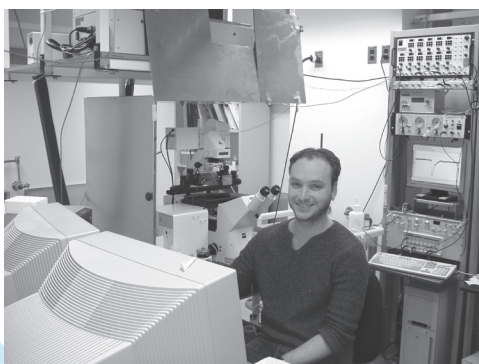


Inside:

- UMBI News
- Bright Lights in the Lab—Again
- IHV to Leave UMBI
- Odds and Ends
- MBC Happenings

Israeli PhD Student Liron Boyman using one of the state-of-the-art confocal microscopes in Dr. Lederer's laboratory.



Long Distance Learning?

5,840—That is how many miles PhD student Liron Boyman traveled to learn patch clamp and cardiac confocal imaging! Liron is a third year PhD student at Tel Aviv University studying under Dr. Daniel Khananshvili. Dr. Khananshvili is a long-time collaborator of Dr. W. Jonathan Lederer, who is the American connection on a Binational Science Foundation grant which is paying for Liron to come to Baltimore. Liron arrived in Baltimore on November 1 and expects to stay through mid January.

Dr. Lederer's laboratory is internationally known for both patch clamp (a technique where an individual cell has electrodes attached in specific locations to be able to deliver specific electrical stimuli) and cardiac confocal microscopy. Having

both excellent facilities and experienced scientists makes the Lederer laboratory one of the most sought after for teaching techniques and collaborations.

Liron expects to put his newly acquired expertise to use on his thesis project which concerns modulation of cardiac contractility and

continued page 4

USM Foundation Leaders Visit

The Medical Biotechnology Center hosted a visit by University System of Maryland Foundation's (USMF) President, Leonard Raley, and Chair, Walter Fatzinger. The foundation is the responsible for supporting fundraising efforts throughout the entire university system. UMBI is just beginning to maintain on-going fundraising efforts, initiated with the hiring of David Bobbitt (*Inside MBC*, vol. 9 no. 5). It was Mr. Bobbitt who arranged for Mr. Raley and Mr. Fatzinger to visit UMBI and tour both the MBC and COMB.

After a brief meeting with MBC director, Dr. W. Jonathan Lederer, and Assistant Director Timothy Hughes, the visitors received a guided tour from Research Coordinator Pamela Wright. It was the first time that anyone from USMF had visited the MBC. It is hoped that with a better understanding of the broad range of research at UMBI, that the USMF will be in a better position to help raise funds to support UMBI science.

USMF FOUNDATION

SERVING THE UNIVERSITY SYSTEM OF MARYLAND

First Lovelace Memorial Lecture in Ethics

Dr. Howard K Schachman from University of California, Berkeley gave the first Lovelace Memorial Lecture in Ethics on November 29, entitled "Research Misconduct and the Change from 'Publish or Perish' to 'Patent and Prosper.'" The lecture is named for Dr. James Lovelace, former UMBI Vice President for Academic Affairs who passed away in 2004. The lecture was made available via Interactive Video Network (IVN) to all UMBI locations. While this was not quite like attending in person, it did relieve MBC faculty and staff from having to drive to Rockville.

Dr. Schachman, who gave a humor filled presentation, based this lecture on the required ethics course he gives at UC Berkeley for science students.

Bright Lights in the Lab—Again

It is getting to be almost commonplace to see TV cameras in the Geddes laboratory! This time a crew representing a Texas TV station was looking at the glucose sensing contact lenses under development in the MBC's Institute of Fluorescence. The project headed by Dr. Chris Geddes, along with Dr. Kadir Aslan, seems to peak public interest but has yet to attract a business partner. However, with the exposure this work has had over the past several months (see *Odds and Ends* on page 4), Dr. Geddes hopes that he will be able to spin off a company sooner rather than later.

Dr. Geddes has done so many of these shoots that he is extremely comfortable with the interview technique used. The actual TV correspondent or anchor—the person that an audience would see—is not even there! The assistant (seen with her back to the camera) reads a list of questions or asks some follow-up on her own, and Dr. Geddes responds. The on-air interview is then put together from the recorded responses and the question repeated by the actual anchor.

While this sort of publicity seems disruptive to research, which it can be, it is also vital to increasing the chances of moving MBC research from the benchtop to the boardroom. It also helps raise UMBI's and MBC's visibility in the state and the nation. The perception that our institution does highly innovative, cutting edge research helps everyone. Any of our faculty members who have reviewed grants can tell you how important it is to come from a recognized institutional leader. This is one part of that recognition process.



Editor and Designer: Pamela B. Wright
Assistant Editor: Tim Hughes

Publisher: W. Jonathan Lederer, Director MBC
Assistant Publisher: Joseph Kao, Assoc. Director MBC

Contact us at: wrightp@umbi.umd.edu
or 1-410-706-8181

Medical Biotechnology Center
725 West Lombard Street
Baltimore, MD 21201 USA

Back issues of *Inside MBC* are available on the web at:
<http://www.umbi.umd.edu/~mbc>

©Medical Biotechnology Center, University of Maryland Biotechnology Institute. All rights reserved.

Congratulations!

MBC's Pamela Wright has been named to the Board of the Information Systems Advisory Board (ISAB), with representation from all federal agencies. She will, in her capacity as ISAB member, advise the Office of Management and Systems about user concerns in regard to information network issues.

IHV to leave UMBI

After deferring action for six months, the University System of Maryland Board of Regents (BOR) finally decided the fate of MBC's sister center, the Institute of Human Virology (IHV). The IHV had requested a review of its status within UMBI and within USM, which had culminated in the recommendation of USM Chancellor William Kirwan that the IHV be moved to the University of Maryland School of Medicine (*Inside MBC* vol. 9 no. 3). This was based on the fact that a majority of IHV's work was either clinical and being conducted by UMB primary IHV faculty. The vote had been expected at the June 2006 meeting of the BOR.

UMBI, who hosted the December 1 BOR meeting at its new CARBII facility, now has 7 months to work out the final details of the administrative move which is set to take place July 1, 2007. The IHV will not physically move for some time, as significant space will need to be found within UMB. The IHV will likely move to UMB's Health Sciences III facility, which has been moved up in the USM 5 year capital expenditure plan as part of the transfer.

The BOR vote is really the easiest part of the process. Now all the administrative details, including faculty and staff appointments, grants and contracts, and all the associated revenues and expenses, have to be worked into a formula to make the transfers as painless and revenue neutral as possible. So IHV will no longer be a sister center but a UMBI tenant, similar to UMB's Center of Fluorescent Spectroscopy housed on the second floor of MBC's building.



MBC Gets Together

by Dannielle Watson

Every year MBC has a potluck lunch around Thanksgiving time, asking each member to bring in something special. Since the MBC is a very diverse team—we have individuals from China, Spain, and Greece, just to name a few—the traditional turkey, stuffing, and mashed potatoes are not the main dishes. At the MBC, the Thanksgiving lunch consists of a variety of foods such as dumplings with coconut strips, Chinese bean bread, lo mein, and Russian smoked herring. Of course, an event at the MBC would not be complete without Dr. Lederer's famous (infamous?) spicy beans with his own special hot sauce that could set off all nine alarms. While the traditional foods may not have been eaten, the tradition of thanksgiving was very much alive. It was a time for being thankful for what we have, spending time with our colleagues, meeting new co-workers, and sharing some of life's experiences—after all isn't that what Thanksgiving is all about?

been elected chair
y Board (ISAB).
the centers and
of Information
gard to UMBI wide

MBC Happenings

Comings and Goings

Dr. Leonid Breydo, Research Associate in Dr. Ilia Baskakov's laboratory, has left.

Grants and Contracts

Dr. W. Jonathan Lederer, NHLBI/NIH, "Calcium Sparks in Heart Muscle," 12/1/06, \$290,021, yr 4 of 4.

Publications

Shen YX, Ballar P, **Fang SY**. Ubiquitin ligase gp78 increases solubility and facilitates degradation of the Z variant of alpha-1-antitrypsin. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS* 349 (4): 1285-1293 NOV 3 2006.

Jafri MS, Kotulska M. Modeling the mechanism of metabolic oscillations in ischemic cardiac myocytes. *JOURNAL OF THEORETICAL BIOLOGY* 242 (4): 801-817 OCT 21 2006.

Aslan K, Malyn SN, **Geddes CD**. Multicolor microwave-triggered metal-enhanced chemiluminescence. *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY* 128 (41): 13372-13373 OCT 18 2006.

Seo PR, Teksin ZS, **Kao JPY**, Polli JE. Lipid composition effect on permeability across PAMPA. *EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES* 29 (3-4): 259-268 NOV 2006.

Nishina KA, Deleault NR, Mahal SP, **Baskakov I**, Luhrs T, Riek R, Supattapone S. The stoichiometry of host PrPC glycoforms modulates the efficiency of PrPSc formation in vitro. *BIOCHEMISTRY* 45 (47): 14129-14139 NOV 28 2006.

Fu Y, **Lakowicz JR**. Enhanced fluorescence of Cy5-labeled oligonucleotides near silver island films: A distance effect study using single molecule spectroscopy. *JOURNAL OF PHYSICAL CHEMISTRY B* 110 (45): 22557-22562 NOV 16 2006.

Chowdhury MH, Malyn SN, **Aslan K**, **Lakowicz JR**, **Geddes CD**. Multicolor directional surface plasmon-coupled chemiluminescence. *JOURNAL OF PHYSICAL CHEMISTRY B* 110 (45): 22644-22651 NOV 16 2006.

Ballar P, Shen YX, Yang H, **Fang SY**. The role of a novel p97/valosin-containing protein-interacting motif of gp78 in endoplasmic reticulum-associated degradation. *JOURNAL OF BIOLOGICAL CHEMISTRY* 281 (46): 35359-35368 NOV 17 2006.

Ford DL, **Monteiro MJ**. Dimerization of ubiquitin is dependent upon the central region of the protein: evidence that the monomer, but not the dimer, is involved in binding presenilins. *BIOCHEMICAL JOURNAL* 399: 397-404 Part 3, NOV 1 2006.

Zhang YX, **Aslan K**, Previte MJR, Malyn SN, **Geddes CD**. Metal-enhanced phosphorescence: Interpretation in terms of triplet-coupled radiating plasmons. *JOURNAL OF PHYSICAL CHEMISTRY B* 110 (49): 25108-25114 DEC 14 2006.

Previte MJR, **Aslan K**, Malyn SN, **Geddes CD**. Microwave triggered metal enhanced chemiluminescence: Quantitative protein determination. *ANALYTICAL CHEMISTRY* 78 (23): 8020-8027 DEC 1 2006.

Talks and Travels

Dr. Joseph Kao, Invited Seminar, Center for Vascular and Inflammatory Diseases, University of Maryland School of Medicine, "Controlling Physiology with Light," November 8, 2006.

Dr. Joseph Kao, Invited Seminar, Department of Physiology and Biophysics, University of Washington School of Medicine, Seattle, WA, "Controlling Physiology with Light," November 29, 2006.

Long Distance, continued

rhythm.

Coming from a much warmer climate caused some concern for Liron, who says his mother made sure he had an ample supply of cold weather clothes. However, the unusually mild weather has been very welcomed. "I probably brought the warm weather from Israel with me!" says Liron.

In addition to seeing the sights in Baltimore, Liron plans a few days in New York City before leaving.

Odds and Ends

- Dr. Chris D. Geddes chaired the NIH study section "Chemistry and Biophysics, ZRGI BCMB-L 10 B," November 16-17th 2006.

- *The Baltimore Daily Record* ran a story on the Dr. Geddes' glucose sensing contact lenses, November 15, 2006.

- Optometrists Association Australia interviewed Dr. Geddes for the Glucose sensing lenses and ran a featured story in *Australian Optometry*, a quarterly publication for association members.

- Dr. Chris Geddes' work was highlighted in *Biophotonics International's* December 2006 issue in an article entitled "Chemiluminescence gets a boost from microwaves" (p 20).

- Dr. Chris Geddes' work was also highlighted in *Analytical Chemistry's* January 1, 2007 issue in a news item entitled "Plasmon resonance boosts output of chemiluminescence" (p 4).

- On December 7, The MBC Seminar Series featured Dr. David A. Harris from Washington University in St. Louis who spoke on "How do prions kill nerve cells?" Dr. Harris was hosted by Dr. Ilia Baskakov.

- Dr. W. Jonathan Lederer hosted a holiday luncheon for the MBC administrative staff. It was the first time the entire administrative unit had gotten together for such an event.



Dr. Ilia Baskakov, Invited Speaker, Scripps-Florida, Department of Infectology, "Prions: what makes the protein infectious?" December 18, 2006.