Medical Biotechnology Center - University of Maryland Biotechnology Institute

Inside MBC

"...molecular medicine through biotechnology"

Volume 5, Number 3 May-June, 2002

Inside:

UMBI Employee Association Created

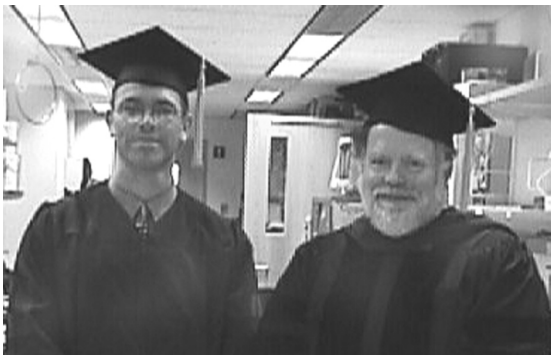
In May, at the behest of Dr. Jennie Hunter-Cevera, the UMBI Employee Association was created. Venus Windmiller, MBC's Human Resource Associate, is coordinating the start-up phase. There is no formal structure yet, but eventually there should be representatives from all the centers. The association will organize institution-wide social functions, to bring all UMBI employees closer together. There is a nominal membership fee ($10 for Faculty and staff, $6 for students). Contact Ms. Windmiller (windmill@umbi.umd.edu) to sign up.

The first function will be a picnic in July but future plans include an Orioles game in August and the Annual Holiday Party, which will be held this year at the Baltimore Hyatt on Light Street. There will be dinner and dancing with an optional overnight package (bed and breakfast) for those who may not want to travel back that night. If you have any ideas or wish to volunteer to organize an event, please contact Ms. Windmiller.

Leaving the Nest

Graduation day at the University of Maryland, Baltimore included two well known faces from the Medical Biotechnology Center, Keith Dilly from Dr. W. Jonathan Lederer's laboratory and Dr. Alex Mah, from Dr. Mervyn Monteiro's. While the UMBI cannot grant degrees directly, most of its faculty members participate in training programs through sister institutions. Thus, UMBI is far more involved in graduate education than most outside observers realize and, of course, it is UMBI grant money that supports their thesis work.

Keith received his Ph.D. through the Department of Physiology, UMB School of Medicine. Keith had received his Bachelor of Science degree from Coventry University in Coventry, England and a Masters from Liverpool University in Liverpool, England before coming to Baltimore in 1995. The title of his thesis was "Calcium signaling in Heart Failure." The now



Dr. Lederer (right) with Keith Dilly just before graduation ceremonies took place.

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Human Resources in Philly

While the faculty have a variety of scientific meetings they attend, staff members too have professional meetings available. One such meeting is the Society for Human Resource Management (SHRM). Venus Windmiller, our Human Resource Associate, attended the 54th Annual Conference, June 23-26 in Philadelphia. Keynote speakers included Rudolph Giuliani and David McCullough. There were workshops on collective bargaining and human resource (HR) automation, sessions on benefits, health care costs, compensation and immigration, and "Mega Sessions" with such interesting titles as "Chicken Little Leadership" and "When the Thrill is Gone, So Are They."

This was the first year Ms. Windmiller went to this conference, but she found it a "valuable experience." Assistant Director, Tim Hughes, who sent her to the confer-

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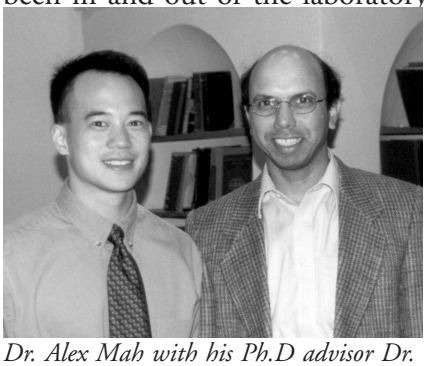
Graduation continued.

Dr. Dilly will be leaving at the end of this summer to start a postdoctoral fellowship at Columbia University with Dr. Robert Kass.

Dr. Alex Mah became a "doctor-doctor," receiving his medical degree this spring. He had completed his Ph.D. two years ago with Dr. Monteiro. He has actually been in and out of the laboratory finishing up research projects whenever his medical studies allowed. Dr. Mah will be spending one more year in Baltimore as an intern at Union Memorial before doing his residency at Brigham and Women's Hospital in Boston, where he will specialize in anesthesiology.



Dr. Alex Mah with his Ph.D advisor Dr. Mervyn Monteiro at the reception for new graduates.

Symposium continued.

ence said "It is important that all our employees, not just faculty, pursue continuing education. That benefits the MBC."

SHRM does more than organize conferences. It has developed certification courses for HR. Ms. Windmiller received her Generalist Certificate last October and is working on her Professional in HR certification. She has been at MBC since 1999, but has worked in human resources since 1994. At MBC she is in charge of all aspects of HR, including introducing all staff members to the new PHR online time sheet system that was instituted in March.

Ms. Windmiller is extremely active within the larger UMBI and USM communities, organizing the UMBI Employee Association and representing UMBI on the Council of University System Staff (CUSS).

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MBC/UMBI Perspectives

By Tim Hughes

1987 & 1988...618 West Lombard Street and more faculty and staff appointments...

With its first primary faculty member on board, the MBC sought its first administrative home. During the first couple months after his appointment, the Assistant Director for the MBC, Tim Hughes, lived in borrowed space. While he was on a sabbatical in Israel, Dr. Myron (Mike) Levine (the Director of the UMB Center for Vaccine Development and the Acting Co-director of the MBC) lent his office space in the Department of Medicine until temporary space for MBC administrative offices became available through negotiations with University of Maryland at Baltimore's Vice President's office. About 2,000 sq ft of office space were allocated in Parsons Hall at 618 West Lombard Street, now demolished. This space provided MBC with a director's office, an assistant director's office, a conference room and about 5 other offices that was central to its development and operation for the next 8 years.

Tim Hughes, 1988

In December 1987 the first MBC Administrative Assistant was hired; her name was Lynn Thomas. She had previously worked on the UM College Park Campus and for our sister center, CARB, in Rockville. She jumped at the opportunity to work at the MBC in part because it was closer to home. She had been at UMBI as long as CARB had been in existence and thus had significant historical and institutional memory and knew virtually everyone at UMBI. She was very much the "right person at the right time". She helped set up the original accounting system that continues as the basis for the system in use today in the MBC.

In February 1988 Dr. Joseph Lakowicz was given a secondary faculty appointment in the MBC, complementary to a secondary appointment provided to Dr. John Collins (MBC's first primary faculty hire) by the UMB School of Medicine's Department of Biological Chemistry where Dr. Lakowicz was primary. The model of matching, joint appointments allowed MBC to hire faculty when it had no space and provided mutual benefit to the MBC and the departments where the appointments were made. The department provided space for laboratory and offices with some funding and the MBC provided funding for salary, seed support for new faculty, and the hope of a future new facility where all MBC faculty would relocate. The other added benefit to the school/department and the MBC was co-localization with new faculty colleagues. The joint appointment model was a very useful and powerful tool.

Next...a five year plan and more faculty appointments...

Seminars at the MBC

May and June brought both old friends and new to the MBC to share their current findings with the entire campus. On May 2nd, MBC's own **Dr. John Collins** gave his first Elkins lecture, one of three required by the Professorship. Dr. Collins received the Wilson H. Elkins Professorship last July (*Inside MBC* vol. 4, No. 3). Dr. Collins discussed his work with Dr. John Moult from the Center for Advanced Research in Biotechnology. They are using new bioinformatics and proteonomics techniques to investigate the protein structure of troponin, a complex and problematic muscle component that Dr. Collins has worked on using conventional biochemical techniques for many years.

Drs. Amy Tucker and **Randall Moorman** from the University of Virginia gave an interesting "tag team" seminar May 6th on "Phosphlemman: a Major Substrate for Kinases in Heart" and "A Murine Model of Phospholemman Deficiency." This unusual presentation not only discussed the biochemical role of phospholemman but revealed the way in which cross-fertilization within institutions can lead to novel insights.

The Seminars in Molecular Medicine and Biotechnology continued May 30, 2002 with **Dr. Shengyun Fang**, M.D., Ph.D from the National Cancer Institute. He introduced the MBC to "The RING Finger Ubiquitin Ligases: Implication in Tumorigenesis and Metastasis." This important family of ligases is responsible for marking proteins for degradation, as well as a host of other important functions within the cell. June 3rd, brought **Dr. William Leiserson** from Yale University to speak to us on "Frayed Nerves and Axonal Ensheathment: Evidence for a Conserved Signaling Pathway in *Drosophila* Glia." *Fray* is a *Drosophila* gene which Dr. Leiserson discovered which creates bulges or weak areas in nerve bundles, though it is not fatal. There are vertebrate and human analogs to this gene. **Dr. Yu-Fung Lin** continued this exciting series of lectures. Dr. Lin came from the University of California San Francisco, speaking on "Modulation of ATP-Sensitive Potassium Channels by PKA-Mediated Phosphorylation and Nitric Oxide." These channels have been implicated in familial hyperinsulinemia, or excessive insulin production.

The final talk of the month was by **Dr. Jeffery W. Kelly,** Lita Annenberg Hazen Professor of Chemistry from The Scripps Research Institute. Dr. Ilia Baskakov hosted this distinguished scientist who spoke on "Understanding the Energy Landscape Associated with Transthyretin Amyloid Diseases and Manipulating it to Prevent Amyloidosis." Amyloidosis or the buildup of protein plaques, usually in the brain, is part of many neurodegenerative diseases including Alzheimers and mad-cow disease.

The Cutting Edge

Keeping in the forefront in any research discipline takes imagination, drive and the latest technology. A new, state-of-the-art ultraviolet capable Zeiss confocal microscope was installed the end of May in Dr. W. Jonathan Lederer's laboratory. This instrument is being adapted for use as a new system for photolysis of caged reagents. The technology, when developed, will enable rapid subcellular changes in calcium, neurotransmitters, and other substances of interest to be initiated and studied, with simultaneous measurements of membrane current. The cells will also be imaged with millisecond resolution. It is expected that it will take about one year to bring the system online. This work by primary investigators, Drs. Eric Sobie and W. J. Lederer, is jointly sponsored by the Institute for Molecular Cardiology and the Institute for Nanobiology at MBC, with the guidance and support from Nanobiology Director, Dr. Joe Kao.

Did you know....

...that the Center for Fluorescence Spectroscopy is not the only national center associated with MBC? Dr. Gerald Rosen heads a satellite center of the Center for EPR Imaging In Vivo Physiology, in conjunction with the University of Chicago and the University of Denver.

It's a Hit!

Working in the shadows of Camden Yards and contending with game traffic can either make one annoyed at the chaos or envious of those who will be enjoying the crack of the bat and the crunch of peanuts. Giving into envy, Venus Windmiller organized an MBC outing to the ballpark. Approximately 25 employees, including MBC Director Dr. W. Jonathan Lederer, Assistant Director Tim Hughes, and their families took the afternoon off to see the Orioles take on San Diego Padres June 12th. At a bargain price that included a hot dog and soda, everyone trooped over to the Yard. High up on the third base side we had a spectacular view out of the sun. While the Orioles lost 2-0, no one really minded, it was just great to be together.

The group included a number of foreign-born faculty and staff, who had never been to a baseball game before. Dr. Elena Alexandrova, a Visiting Research Associate in Dr. Lederer's laboratory, was one of these. Dr. Hali Hartmann, Assistant Professor, and Andy Ziman, graduate student, who had Dr. Alexandrova do a little internet homework on the basic rules. She said, however, it was much better to have them explain it while the game was going on. She was also tickled when Tommy Wright, son of Research Coordinator Pamela Wright, really got into the game, jumping up and cheering. Dr. Alexandrova says she would be willing to see another one, a tribute to Dr. Hartmann's tutoring.

MBC Happenings

Comings and Goings

MBC welcomes Noah Kasco, born May 14, 2002 to MBC Business Manager **Jamie Kasco** and her husband Scott and Hannah Gelner, born May 25, 2002 to Research Technician **Tracy Gelner** in Dr. Monteiro's laboratory and her husband Rob.

Promotions

Dr. Mervyn Monteiro was promoted to Full Professor.

Publications

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Talks and Travels

W. J. Lederer Invited Speaker, Heart Failure Mini Symposium, Columbia University, New York, "Calcium Signaling and Congestive Heart Failure", May 1, 2002.

CFS Receives Special NIH Grant

The Center for Fluorescence Spectroscopy is a very visible component of the MBC on the second floor. The Center is funded by the NIH's National Center for Research Resources as part of the Biomedical Technology Resource Centers Program. This program "supports 42 specialized centers located nationwide, primarily at academic and other research institutions. These centers make available a broad spectrum of technologies, techniques, and methodologies to this nation's biomedical research community." The Center is headed by Dr. Joseph Lakowicz, whose primary appointment is at University of Maryland, Baltimore and holds a funded secondary appointment in the MBC.

The Center has recently received a grant to organize the annual NCRR Principal Investigators Meeting. The meeting is attended by all the principal investigators of center grants, their codirectors and the heads of the NCRR. Mary Rosenfeld, the CSF's Academic Coordinator, is primarily responsible for this effort. She and others at the Center organized their first meeting, held June 23-25, 2002 in Bethesda. This is the first of five for which they will be responsible.

MBC Family Continues to Grow

The expansion of the MBC faculty continues with the addition of two new faculty members, M. Saleet Jafri, as an Adjunct Associate Professor from George Mason University, and Ira Josephson, Associate Professor here and at the Gerontology Research Center, National Institute of Aging.

Dr. Jafri models biological systems, including the heart, and is visiting the MBC this summer to further a collaboration with Dr. Eric Sobie on modeling calcium sparks. He recently accepted the position at George Mason, coming from the University of Texas, Dallas.

Dr. Josephson has been studying excitation-contraction coupling in the heart for many years, working at the Gerontology Research Center for the last three years and at the University of Cincinnati before that. He expects to continue his collaboration with Dr. Edward Lakatta of the GRC, while establishing a research base at the MBC.

W. J. Lederer Invited Speaker, Symposium on Cardiac and Skeletal Electrophysiology: A Tribute to Professor Otto Hutter, Glasgow University, "Calcium Signaling in Heart Failure." May 8, 2002.

Gerald M. Rosen, Invited Speaker, symposium on Imaging Oxygen and Nitric Oxide with In Vivo EPR, University of Chicago, "Nitric Oxide Synthase, an Enzyme for All Seasons," May 23, 2002.