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Legislative Committee Visits

During the legislative session, the UMBI President and Center Directors visit the committees responsible for overseeing the UMBI state appropriated budget. But this time the committee came to UMBI, when MBC hosted the Health and Government Operations Committee from the Maryland House of Delegates. Representing UMBI was Dr. Claude Nash who introduced a pre-recorded welcome from UMBI President Dr. Jennie Hunter-Cevera and gave a brief overview of UMBI. Then MBC Director Dr. W. Jonathan Lederer gave an overview of MBC and also his research on heart failure and arrhythmias.

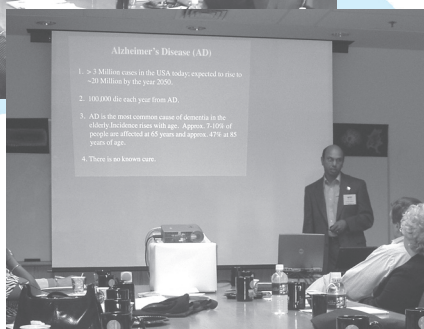
Three MBC faculty members also discussed their research. Dr. Mervyn Monteiro talked about neurodegenerative diseases. Dr. Chris Geddes reviewed his work on fluorescence applications in biosensing. The last faculty member was Les Baillie, who talked about the biodefense initiative at MBC and his work on anthrax.

The Center of Advanced Research in Biotechnology's director, Dr. Edward Eisenstien, also spoke briefly about what was going on in the Rockville facility.

The committee members asked numerous questions which made them slightly late for the next stop on their tour but the overall feeling was that they were very impressed with what was going on at the MBC and in UMBI. It certainly was a pleasure to host such a distinguished group.



Above, Dr. Lederer talks about heart disease. Right, Dr. Monteiro discusses his work on Alzheimer's Disease.



Health and Government Operations Committee Members from left to right in front: The Honorable Peter A. Hammen (Chairman); The Honorable Marilyn R. Goldwater; The Honorable Dan K. Morhaim; The Honorable Veronica Turner; The Honorable Adrienne A. Mandel; The Honorable Shirley Nathan-Pulliam; The Honorable William J. Frank; The Honorable Wade Kach. Visitors also included legislative aides and analysts.

UMBI Ethnobotany Initiative

UMBI in conjunction with Frostburg State and West Virginia University has established the Appalachian Center for Ethnobotanical Studies (ACES). The center is dedicated to investigating the potential of native plants that have traditionally been used as herbal medicines. Along with education and conservation efforts, the center hopes to increase the economic benefit that the managed development of useful botanical resources can bring to Appalachian region. ACES was funded with the help of Maryland's US Senators, Paul Sarbanes and Barbara Mikulski.

Development Officer

Mr. David Bobbitt has been hired as UMBI's Development Officer. He will be overseeing the fund-raising efforts for both UMBI and all the centers. MBC is looking forward to working with Mr. Bobbitt, who has a solid track record in raising funds.

UMBI e-Learning

UMBI's Human Resources has launched an initiative to give staff and faculty an opportunity to improve their computer skills, explore business topics or learn new programs. Check out the extensive catalogue at <http://www.umbi.umd.edu/hr/e-learning/index.html>. Certification credits are available in some areas.

Odds and Ends

September 1, 2006 The Program in Cancer Biology headed by Dr. Shengyun Fang and the Institute for Neurodegenerative Diseases, headed by Mervyn Monteiro, co-hosted a seminar by Dr. Yihong Ye from the National Institute of Diabetes and Digestive and Kidney Diseases entitled "The Mechanism of Retro-translocation from the Endoplasmic Reticulum."

September 8, 2006 Dr. Chris Geddes officially launched a new journal called *Plasmonics*. The journal will be dedicated to the burgeoning area of plasmon research.

October 11, 2006 The UMBI President, Center Directors, and VP Retreat was held at Turf Valley Conference Center and Resort in Ellicott City. This off-campus event is held approximately twice a year and allows UMBI leaders to look at long term plans and institutional wide issues.

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Congratulations!

MBC's Dr. Mervyn Monteiro was formally appointed as the Chair of UMBI Faculty Staff Senate on October 10, 2006. He had been elected last spring (*Inside MBC*, Vol. 8, No. 2). He replaces acting Chair, Dr. John Collins (see story above.)

Fraunhofer USA visits MBC

On September 19, MBC hosted another outside group interested in learning more about the MBC and UMBI. Senior representatives from Fraunhofer USA, Inc. and its parent organization, Fraunhofer-Gesellschaft from Germany, listened to MBC Directory W. Jonathan Lederer discuss the diverse research interests of MBC faculty. Dr. Frank Robb of the Center of Marine Biotechnology, Dr. David Pauzza from the Institute of Human Virology and UMBI's Education and Outreach Assistant Director, Mr. Gary Coleman, also gave presentations.

Fraunhofer was visiting to explore possible collaborations in both research and education. The company specializes in contract research both in the US and Germany, through research centers and associated institutes. While nothing specific was initiated, both sides have a greater awareness of the potential benefits of cooperation, should an area of mutual interest be discovered. It also raises MBC's profile in the business side of biotechnology.

The group also toured the UMBI Shady Grove campus.



From left to right: Dr. Frank Robb, COMB Professor; Dr. William Hartman, Vice President, Fraunhofer USA; Dr. Martina Schraudner, Research Planning, Fraunhofer-Gesellschaft; Dr. Vidadi Ysibov, Executive Director Fraunhofer Center for Molecular Biotechnology; Dr. Anke Hellwig, Deputy Head of Department International Business Development, Fraunhofer-Gesellschaft; Dr. W. Jonathan Lederer, Director of the Medical Biotechnology Center; and Alicia Moran, UMBI Director of Communications.

MBC's John Collins Honored

Dr. Jennie Hunter-Cevera presented MBC's Dr. John Collins with a plaque recognizing his dedication and efforts in the name of shared governance. Dr. Collins is past chair of UMBI's Faculty Staff Senate, serving from April 1993 to September 1996 and February 2002 to September 2003. He then became Acting Chair until the end of October, when Mervyn Monteiro was officially appointed (see previous page).

In addition to his stints as senate chair, Dr. Collins is UMBI's representative to CUSF (Council of University System Faculty) and secretary of CUSF.

Dr. Collins is a past recipient of the USM Elkins Professorship (*Inside MBC*, vol. 4, No. 3). Outside of work, Dr. Collins is an avid runner.



Dr. Hunter-Cevera presenting the plaque to Dr. Collins.

MBC Happenings

Comings and Goings

Dr. Julio Altamirano has joined Dr. W.J. Lederer's laboratory as a Research Associate. **Dr. Vadim Salnikov** has returned to Russia after collaborating with Drs. Valeriy Lukyanenko and Ilia Baskakov.

Grants and Contracts

Dr. Mervyn Monteiro, 9/1/2005, NIH, "Functional Studies of Calmyrin," \$304,425, yr 1 of 5. This was a competitive renewal of an earlier grant.

Dr. Chris Geddes, 9/30/2005, Seahorse Bioscience, "Fluorescent Sensor Development and Screening Program," \$157,548, yr 2 of 2.

Dr. W. Jonathan Lederer, 9/1/2005, UMB/NIH, "Subcellular Organization and Ca^{2+} Signaling in Heart Failure," \$388,665, yr 4 of 5.

Dr. Chris Geddes, 9/1/2005, UMB/NIH, "Metal-enhanced Fluorescence Sensing," \$91,105, yr 2 of 2.

Publications

Matveeva EG, Gryczynski Z, Malicka J, Lukomska J, Makowiec S, Berndt KW, **Lakowicz JR**, Gryczynski I. Directional surface plasmon-coupled emission: Application for an immunoassay in whole blood. *ANALYTICAL BIOCHEMISTRY* 344 (2): 161-167 SEP 15 2005.

Tsai P, Marra JM, Pou S, Bowman MK, **Rosen GM**. Is there stereoselectivity in spin trapping superoxide by 5-tert-butoxycarbonyl-5-methyl-1-pyrroline N-oxide? *JOURNAL OF ORGANIC CHEMISTRY* 70 (18): 7093-7097 SEP 2 2005

Song LS, Pi Y, Kim SJ, Yatani A, **Guatimosim S**, Kudej RK, Zhang QX, Cheng HP, Hittinger L, Ghaleh B, Vatner DE, **Lederer WJ**, Vatner SF. Paradoxical cellular Ca^{2+} signaling in severe but compensated canine left ventricular hypertrophy. *CIRCULATION RESEARCH* 97 (5): 457-464 SEP 2 2005

Bagal AA, **Kao JPY**, Tang CM, Thompson SM. Long-term potentiation of exogenous glutamate responses at single dendritic spines. *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA* 102 (40): 14434-14439 OCT 4 2005

Weaver J, Porasuphatana S, Tsai P, Budzichowski T, **Rosen GM**. Spin trapping nitric oxide from neuronal nitric oxide synthase: A look at several iron-dithiocarbamate complexes. *FREE RADICAL RESEARCH* 39 (10): 1027-1033 OCT 2005

Badugu R, **Lakowicz JR**, **Geddes CD**. Wavelength-ratiometric and colorimetric probes for glucose determination. *DYES AND PIGMENTS* 68 (2-3): 159-163 2006

Lakowicz JR, Malicka J, Matveeva E, Gryczynski I, Gryczynski Z. Plasmonic technology: Novel approach to ultrasensitive immunoassays. *CLINICAL CHEMISTRY* 51 (10): 1914-1922 OCT 2005

Heinbockel T, Brager DH, Reich CG, Zhao J, Muralidharan S, Alger BE, **Kao JPY**. Endocannabinoid signaling dynamics probed with optical tools. *JOURNAL OF NEUROSCIENCE* 25 (41): 9449-9459 OCT 12 2005

Song LS, **Guatimosim S**, Gomez-Viquez L, **Sobie EA**, Ziman A, **Hartmann H**, **Lederer WJ**. Calcium biology of the transverse tubules in heart. *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES* 1047: 99-111 2005

Nguyen MHT, **Jafri MS**. Mitochondrial calcium signaling and energy metabolism. *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES* 1047: 127-137 2005

The MBC is again advertising for an tenure-track Assistant Professor. With an early start, it is hoped that a viable candidate will be identified by spring. Tim Hughes is coordinating the effort again, but it is the Recruitment Committee who must go through every application. The committee is trying a new approach this time. Instead of waiting until the application deadline is reached, the first batch of applications will be reviewed and candidates identified and invited, while more applications are organized and reviewed. The first candidates are expected to be invited to give a seminar before the end of the year, with more invitations issued in January.

Vallejos JR, Kostov Y, Marten MR, **Rao G**. Confocal optical system: A novel noninvasive sensor to study mixing. *BIOTECHNOLOGY PROGRESS* 21 (5): 1531-1536 SEP-OCT 2005

Bartolome A, Bardliving C, **Rao G**, Tolosa L. Fatty acid sensor for low-cost lifetime-assisted ratiometric sensing using a fluorescent fatty acid binding protein. *ANALYTICAL BIOCHEMISTRY* 345 (1): 133-139 OCT 1 2005

Muriel JM, Dong C, Hutter H, **Vogel BE**. Fibulin-1C and Fibulin-1D splice variants have distinct functions and assemble in a hemicentin-dependent manner. *DEVELOPMENT* 132 (19): 4223-4234 OCT 2005

Liu YW, Shen TS, Randall WR, **Schneider MF**. Signaling pathways in activity-dependent fiber type plasticity in adult skeletal muscle. *JOURNAL OF MUSCLE RESEARCH AND CELL MOTILITY* 26 (1): 13-21 FEB 2005

Aslan K, Leonenko Z, **Lakowicz JR**, **Geddes CD**. Annealed silver-island films for applications in metal-enhanced fluorescence: Interpretation in terms of radiating plasmons. *JOURNAL OF FLUORESCENCE* 15 (5): 643-654 SEP 2005

Talks and Travels

Dr. Ilia Baskakov, Invited Speaker, "Mammalian Prion Protein — Hierarchical Self-assembly and Substructure of Amyloid Fibrils," Cold Spring Harbor/Welcome Trust International Conference on Prion Biology, Hinxton, UK, September 7, 2005.

Dr. Ilia Baskakov, Invited Speaker, "Mammalian Prion Protein — Hierarchical Self-assembly and Substructure of Amyloid Fibrils," Department of Chemistry, Cambridge University, September 12, 2005.

Dr. W. Jonathan Lederer Invited Speaker, "Turning the Ca^{2+} Signal Inside-out: The Paradox of the Ca^{2+} 'Overload'," Department of Physiology, University of Maryland Baltimore, October 6, 2005.

Dr. Shengyun Fang, Invited Speaker, "The Unfolded Protein Response," Graduate School, October 10, 2005 and "The Molecular Mechanism of Er-associated Degradation," The Institute of Genetics and Developmental Biology, October 11, 2005, Chinese Academy of Science, Beijing.

Dr. Ilia Baskakov, Invited Speaker, "Synthetic Mammalian Prions: Hierarchical Self-Assembly and Substructure," Zentrum für Neuropathologie und Prionforschung, Ludwig-Maximilians-Universität München, Munich, Germany, October 17, 2005, and Robert Koch Institute, Berlin, Germany, October 26, 2005.