

September-October, 2008

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Another First for Dr. Collins

Dr. John H. Collins formally retired on October 1. Dr. Collins was the first faculty member hired at the MBC and is now the first to retire, after 21 + years as a full Professor.

As documented in the early history series (*Inside MBC* Vol. 4 No.6), Dr. Collins had been a Professor in the Department of Biology at Clarkson University in Potsdam, New York. He was an expert in protein sequencing. His research has centered on the structure of muscle and membrane proteins, beginning with a postdoctoral fellowship at the Boston Biomedical Research Institute (BBRI) in 1969 after receiving a PhD in Biochemistry from Boston University School of Medicine. He stayed at the BBRI until 1976, did a brief faculty tour at Baylor College of



Medicine before settling down in the Department of Pharmacology and Cell Biophysics at the University of Cincinnati College of Medicine from 1977 to 1984, rising to the rank of Associate Professor. From there he moved as a full Professor to Clarkson University for 3 years before finally coming to the MBC as a tenured full Professor

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Whose Award Is It, Anyway?

The annual UMBI convocation was held September 25 at the Hilton Columbia Hotel in Columbia, Maryland. This is a time to recognize milestones and extraordinary service to the institution of the staff and faculty. There are several different types of awards given at the convocation. The President gives out several of her own choosing, but four awards are done through center based nominations. Every year MBC has placed in nomination individuals for Faculty, Postdoctoral, Staff and Student awards, and several individuals have received these awards. This year was no different; MBC sent in four nominations. However, the outcome was extraordinary. MBC nominees won three of the four awards!

The faculty award went to Dr. Mervyn Monteiro, the postdoctoral



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Annual Morahaim

UMBI Daily Newsfeed

UMBI News

The annual Delegate Dan Morhaim Lecture on Environmental Matters was held on October 7, 2008. The speaker was Dr. Lee Newman of the University of South Carolina who spoke on "Using Plants to Treat Environmental Problems."

UMBI launched its first daily communications project called the UMBI Daily Newsfeed. It is hoped that it will increase cross-center interest, as well as keep everyone abreast of seminars and other events. The project is headed by Gene Levinson, UMBI Director of Communications, with the help of Liz Linton, UMBI's web master, and the Office of Information Systems.



Innovator of the Year Award

In August, the Maryland Daily Record named MBC's Dr. Chris Geddes as Innovator of the Year, one of ten in various categories. The formal award was given out at a dinner held October 17 at the Visionary Art Museum. The Daily Record is one of the premier business publications in Maryland. The award recognizes Dr. Geddes' development of microwave accelerated

metal enhanced fluorescence assays which are poised to revolutionize the way chemicals, biochemicals, and even microorganisms are measured in laboratories or in the field. The Geddes' laboratory is a pioneer in metal enhanced fluorescence and plasmonics.

Tim Hughes attended the ceremony as MBC's representative. Vice President for Education, Professional Advancement and Training Dr. Candace Rettie, Shaun Koenig from the Office of Research, Innovation, and Bradley Peganoff, UMBI Director of Government & External Affairs, represented UMBI Central. The Daily Record's Innovator of the Year Awards presented at ceremony at Visionary Arts Museum



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Congratulations!

Dr. W. Jonathan Lederer gave the 2008 Isaac Starr Lecture sponsored by the Cardiac System Dynamics Society at Washington University in St. Louis.

Collins continued

in 1987, with a joint appointment as Professor in the Department of Biochemistry and Molecular Biology in the UMB School of Medicine.

As the first MBC faculty member, he also authored the first

publication attributed to the MBC. He had the first postdoctoral fellow at MBC, Dr. John Leszyk, and the first research grant. In his time here, MBC went from a patchwork of laboratories and offices spread throughout the UMB campus (Dr. Collins moved his entire

Collins in front f the first protein ers at UMB/UMBI. resident Huntertives Dr. Collins inguished sService Far Right: Dr. Collins his 20 year service laboratory twice!) to having its own building. He was on hand when the first permanent director was hired, and when that director stepped down. He was the first MBC representative to the UMBI Faculty-Staff Senate and the first Chair of the Senate. He was also the first MBC awardee of the

also the first MBC awardee of the prestigious USM Wilson H. Elkins Professorship in 2002 (Inside MBC, vol. 4, No. 3). Throughout his tenure here, he has been active in shared governance, including the Council of University System Faculty (CUSF). In 2007, UMBI President Jennie Hunter-Cevera honored him with a

special award for his years of service on the UMBI Faculty-Staff Senate. Now that he is retired, Dr. Collins expects to "Keep doing what I have been doing, but at my own pace." He will continue to be involved with MBC, UMBI and CUSF activities. He will maintain an office at the MBC, and is looking forward to his new status as an Emeritus Professor.





Clockwise from upper left: Pamela Wright accepts the award for Dr. Mervyn Monteiro, Rushi Talati and Dr. Brian Hagen.

Convocation continued

award went to Dr. Brian Hagen in Dr. W. J. Lederer's laboratory, and the student award went to Rushi Talati, also in Dr. Lederer's laboratory—but none of the awardees got their picture taken! For various reasons, none of the MBC winners were there, even Dr. Lederer had left to go to his class by the time the awards were announced. So Dr. Lederer's assistant, Pamela Wright was enlisted as the stand-in for Dr. Monteiro and Brian Hagen—and Rushi Talati, having her picture repeatedly snapped with each award, much to the amusement of the assembly. As seen on the left, this makes the picture record seem a bit misleading, but Mrs. Wright was happy to be pressed into service in recognizing MBC faculty's and staff's extraordinary service to the Center and the Institution.

The big milestone was MBC's Dr. John Collin's 20 year anniversary (see above). Dr. Collins was the first faculty member to be hired. He is also the first to retire (front page). Other milestones included 5 year MBC veterans: Dr. Kadir Aslan, Dr. Shengyun Fang, Dr. Jaihong Ni, Dannielle Watkins, Dr. Xuehong Xu and Dr. Jun Zhao. MBC was also assigned recognition for a patent from IHV's Dr. Anthony DeVico, since the patent belongs to UMBI, and Dr. DeVico is a secondary faculty member in the MBC.



MBC Happenings

Comings and Goings

Dr. Young Jin Lee, Dr. Yongjin Zou and Dr. John Pisciotta have joined Dr. Ilia Baskakov's laboratory as Research Associates. Evgeni Eltov joined Dr. Chris Geddes laboratory as a visiting intern from Israel. UMBC student Veronica Lopez is doing a rotation in Dr. Mervyn Monteiro's laboratory. Dr. Fang's Research Assistant Katherine Spencer has left. Valeria Albonoz has joined Dr. Monteiro's laboratory as a Research Assistant. Yang Wang is an international student in Dr. Shengyun Fang's Laboratory.

Grants and Contract

Dr. Ilia Baskakov, TEDCO, Maryland Stem Cell Research Fund, "Design of a Self-assembling Peptide Scaffold for Controlling Neural Stem Cell State and Fate," 9/1/08, \$115,000, yr 1 of 2.

Dr. Mervyn Monteiro, TEDCO, Maryland Stem Cell Research Fund, "Role of Ubiquilin in Regulating Proliferation and Differentiation of Human Stem Cells," 9/1/08, \$115,000, yr I of 2.

Dr. Ilia Baskakov, USM Elkins Professorship, "Innovative Program on Bioenergy - Elkins Professorship" 9/1/08, \$80,000, yr I of I.

Dr. Mariusz Karbowski, NIH, "The Role Mitochondria-associated RING Finger Proteins in Mitochrondrial Quality," 9/1/08, yr 1 of 5.

Dr. Les Baillie, Imperial College U.K., "T Cell Epitopes of Anthrax and Plague Vaccine Candidates," 9/30/08, \$124,853, yr 5 of 5.

Dr. Chris Geddes, L'Oreal USA, "Metal-Enhanced Optical Properties of Chromophores," 10/1/08, \$120,000, yr 1 of 1.

Dr. Joseph Kao, UMBI PPOC, "Composition and use of 3-alkomethoxycarbonyl-containing nitroxides as EPr oximetry probes for measurement," 10/1/08, \$13,000, yr I of I.

Publications

Geddes CD. The Who's Who in Fluorescence Annual Volume Breaks New Ground. J Fluoresc. 2008 Sep;18(5):761.

Baillie LW, Rodriguez AL, Moore S, Atkins HS, Feng C, Nataro JP, Pasetti MF. Towards a human oral vaccine for anthrax: The utility of a Salmonella Typhi Ty21a-based prime-boost immunization strategy. Vaccine. 2008 Sep 18. [Epub ahead of print]

Ostapchenko VG, Makarava N, Savtchenko R, **Baskakov IV.** The Polybasic N-Terminal Region of the Prion Protein Controls the Physical Properties of Both the Cellular and Fibrillar Forms of PrP. J Mol Biol. 2008 Sep 4. [Epub ahead of print]

van Oort RJ, Altamirano J, **Lederer WJ**, Wehrens XH. Alternative splicing: A key mechanism for ankyrin-B functional diversity? J Mol Cell Cardiol. 2008 Sep 18. [Epub ahead of print]

Burks SR, Ni J, Muralidharan S, Coop A, **Kao JP**, Rosen GM. Optimization of Labile Esters for Esterase-Assisted Accumulation of Nitroxides into Cells: A Model for In Vivo EPR Imaging. Bioconjug Chem. 2008 Sep II. [Epub ahead of print]

Aslan K, Previte MJ, Zhang Y, **Geddes CD**. Surface plasmon coupled fluorescence in the ultraviolet and visible spectral regions using zinc thin films. Anal Chem. 2008 Sep 3. [Epub ahead of print]

Aslan K, Geddes CD. New tools for rapid clinical and bioagent diagnostics: microwaves and plasmonic nanostructures. Analyst. 2008 Nov;133(11):1469-80.

Cheng H, Lederer WJ. Calcium sparks. Physiol Rev. 2008 Oct;88(4):1491-545.

Student Regent Visits MBC

Mr. Joshua L. Michael, a senior at UMBC, is the student representative on the USM Board of Regents. In that capacity, he visited the MBC on September 29 to acquaint himself with the institutions that make up the entire University System of Maryland. The morning was spent talking to MBC Director, Dr. W. J. Lederer, and MBC faculty members, Dr. Mervyn Monteiro and Dr. Joseph Kao, about the research that goes on here and the role of students. Tim Hughes gave him a tour of the building.

Mr. Michael is studying political science and secondary education. He has served as UMBC's representative to the USM Student Council since 2006 and as a student commissioner on the Maryland Higher Education Commission. From 2005 to 2006, he was a student member of the Maryland State Board of Education.

Talks and Travels

Dr. Kadir Aslan, invited talk, Nanotechnology Research Center, Bilkent University (Ankara, Turkey), September 3, "New Tools for Rapid Clinical and Bioagent Diagnostics: Microwaves and Plasmonic Nanostructures."

Dr. Ilia Baskakov, invited talk, 24th Klenk Symposium on Molecular Medicine, Cologne, Germany, September 14-16: "Catalytic versus Templating Activities of Amyloid Fibrils."

Dr. Bruce Vogel, University of Pennsylvania, School of Veterinary Medicine, Center for Animal Transgenesis and Germ Cell Research, September 23, entitled "Morphogenesis, Model Organisms and Extracellular Matrix."

Dr. Shengyun Fang, Chinese Pharmaceutic University, Sept 23, entitled "Involvement of the Endoplasmic Reticulum (ER) in Tumorigenesis and Metastasis."

Dr. Mervyn Monteiro, invited talk, Neurology Grand Rounds, University of Maryland School of Medicine, September 24, "Misfolded Proteins and Stress in Neurodegenerative Diseases: Lessons From a Trip to the ER."

Dr. Ilia Baskakov, presentation, B&T committee, UMBI site visit, September 30: "Getting insight into neurodegenerative diseases: Prion diseases."

Dr. W. Jonathan Lederer gave the 2008 Isaac Starr Lecture, Cardiac Systems Dynamics Society, Washington University of St. Louis, "Calcium signaling and calcium sparks in myocytes," St. Louis, MO, September 29, 2008.

Dr. Chris Geddes, invited speaker, US Navy, "Anthrax detection in < 20 seconds using metal-enhanced Fluorescence and focused Microwaves," Washington DC, October 3, 2008.

Dr. Ilia Baskakov, session speaker, International Meeting Prion 2008, "The same primary structure of the prion protein yield two distinct self-propagating state," Madrid, Spain, October 9, 2008.

Dr. Bruce Vogel, invited speaker, Program in Genetics and Genomic Medicine, UMB, "Extracellular Matrix, morphogenesis and model organisms," October 29, 2008.

Dr. W. Jonathan Lederer, session speaker, Mitochondrial Biology in Cardiovascular Health & Diseases Conference, NIH, "Dynamic Cardiac Mitochondria," Bethesda, MD, October 6-7, 2008.