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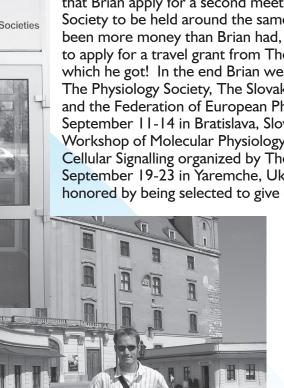
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MEDICAL BIOTECHNOLOGY CENTER -UNIVERSITY OF MARYLAND BIOTECHNOLOGY INSTITUTE

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Joint Meeting of The Slovak Physiological Society,
The Physiological Society and
The Federation of European Physiological Societies



A Long Way From Home

It's a long way from Nevada to eastern Europe, even when you are stopping off in Baltimore. However, Nevada born Postdoctoral Fellow, Dr. Brian Hagen, can tell you exactly how far he's come!

Brian joined Dr. W. Jonathan Lederer's laboratory two years ago to study calcium signalling in heart having just received his Ph.D. from the University of Nevada at Reno. The two years have been amazingly productive for Brian and the Lederer laboratory, so much so that he and Dr. Lederer felt that he had enough data to present at a large meeting. In addition, Brian had significant travel money from the NIH training grant he is on to go to an international meeting.

Dr. Lederer pointed Brian to The Physiological Society in London, in which he is a long term member. They were having a workshop on a good topic for Brian. As Brian was planning his trip, one of Dr. Lederer's UK colleagues suggested that Brian apply for a second meeting, also sponsored by the Society to be held around the same time. That would have been more money than Brian had, but he was also encouraged to apply for a travel grant from The Physiological Society, which he got! In the end Brian went to the Joint Meeting of The Physiology Society, The Slovakian Physiological Society and the Federation of European Physiological Societies held September 11-14 in Bratislava, Slovakia and the International Workshop of Molecular Physiology of Membrane Transport and Cellular Signalling organized by The Physiological Society held September 19-23 in Yaremche, Ukraine. Brian was furthered honored by being selected to give oral presentations at both

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Dr. Brian Hagen in front of the sign for the Joint meeting held at and hosted by the Slovak Academy of Science in Bratislava (top). Brian in front of the Prague Castle (bottom).



New Chief of Staff

I. Katherine Magruder has joined the President's office as Chief of Staff. Ms. Magruder will be responsible for various Presidential projects and activities, supporting President Hunter-Cevera's long term goals for UMBI.

First Morhaim Lecture UMBI hosted the inaugural Dan Morhaim Lecture on October 5, 2007 with Dr. Eric J. Mathur as its first speaker. I Ith District Delegate Morhaim is a physician and long term supporter of environmental matters. He is an ex officio member of the UMBI Board of Visitors and a staunch supporter of UMBI within the state legislature. MBC has been fortunate to play host to him (Inside MBC, Vol. 8, No. 4).

First Intercenter Grants Awarded

The first UMBI Intercenter Collaborative Grant awards were announced October 15, 2007 by Vice President of Research, Innovation & Commercialization, Theodore Roumel. This new program was developed by UMBI's Research Council. The council consists of the Center Directors and senior faculty who meet regularly to help UMBI President, Dr. Hunter-Cevera, initiate and shape UMBI's research direction and programs. It was their suggestion that a program be developed which would enable faculty members to generate preliminary data cross-center and cross-disciplines which would lead to new outside funding possibilities.

The grants, which were announced early in the summer, were submitted the end of August. The grants all have two principal investigators, each from different centers. In addition, the two Principal Investigators must not have on-going collaborative funding. The council then set up a review process, making sure that no one reviewed a grant from their own center.

Ten grants were submitted, seven of which included MBC faculty! Two grants were awarded. MBC's Dr. Joseph Kao, collaborating with COMB faculty member Dr. Shao-Jun Du, received one of the two awards for their project entitled "Development of Light Induced In Vivo Gene Expression technology in an Animal System." The other award went to CARB's Phil Bryan and CBR's David O'Brochta for a project entitled "Plasmodium Subtilisins--A Role in Malaria Transmission by Mosquitoes." The awards are for \$100,00 per year for two years to be split between the Principal Investigators and will begin December 1.

The program is expected to continue for at least several years.

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

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

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Congratulations!

Dr. W. Jonathan Ledere Fred Fay Lecture at the Univ School of Medicine (see Talk Dr. Fay was a pioneer in bioi

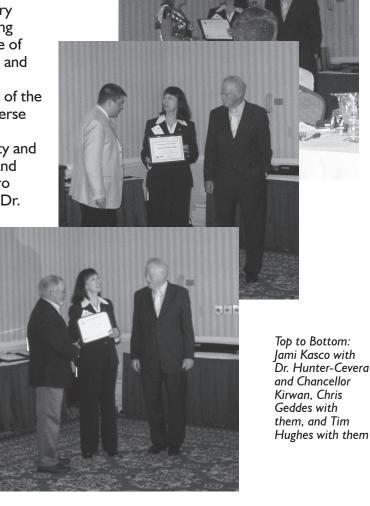
Dr. Lederer also received unusual source, the Fondátic member of a multinational co fibrillation, a major cause of a

UMBI Convocation 2007

The 2007 UMBI Convocation and Staff Awards was held September 14, 2007. It was particularly interesting this year because USM Chancellor William Kirwan spoke, the first time he has addressed such a UMBI function. He was very complementary to UMBI efforts within the system, making it clear that he was very familiar with UMBI's broad range of activities. He also remained to help hand out the awards and certificates.

UMBI President Jennie Hunter-Cevera gave her state of the institution address, highlighting the achievements and diverse undertakings at UMBI in the past year. This now annual address continues to inspire and surprise the UMBI faculty and staff who attend. MBC was represented by senior staff and members of the Geddes laboratory. Dr. Mervyn Monteiro was present as the Chair of the Faculty-Staff Senate, and Dr. John Collins was there as President of the Council of University System Faculty.

While no one at MBC received a special award, a number of milestones were recognized. Dr. Chris Geddes had a patent awarded in the past year, hence the full attendance from his laboratory. MBC Business Manager Jami Kasco marked ten years at UMBI, and Assistant Director Tim Hughes was recognized for an amazing 20 years with UMBI, though he has been in the university system for over 30 years. Congratulations to everyone.



Home continued

meetings. It is unusual for a relatively new postdoctoral fellow to present at an international meeting. The title for both talks was "Arrhythmogenic Ca^{2+} waves in ventricular myocytes initiated by local activation of Ca^{2+} release channels."

Brian spent the intervening time visiting Prague and Kraków, cities he had missed on previous trips to Eastern Europe. By the time Brian was done, he calculated that between planes and trains he had spent 65 hours in travel time! The only real difficulty he had in getting around so many countries was in the Ukraine. The signs are only in the Cyrillic alphabet!

When asked about the meetings, Brian said, "They were really interesting, especially the second one where a lot of students presented. I really learned a lot."

Brian is the first postdoctoral fellow from the Medical Biotechnology Center to win an international travel award and the first to be selected to give oral presentations at two international meetings.

r gave the 9th Annual ersity of Massachusetts and Travels on page 4). maging.

d a grant from an on Leducq in France, as a consortium to study atrial arrhythmias in heart.

MBC Happenings

Comings and Goings

Summer interns Leland Widger (Kao Laboratory) and Andrew McClean (Monteiro laboratory) have returned to school. Gong Li is a new graduate student in Dr. Kao's laboratory and Janet Ugalino is a new graduate student in Dr. Monteiro's laboratory. Dr. Bei Young is a Visiting Research Associate in Dr. Fang's Laboratory. Dr. Leyla Teos is an NIH Postdoctoral Fellow with Dr. W. Jonathan Lederer. Kerri McDonald is a student intern from Towson University in Dr. Chris Geddes' laboratory. Angela Weese has joined Dr. Mervyn Monteiro's laboratory as a Research Assistant. Dr. Chao Liu is a Research Associate in Dr. Shengyun Fang's Laboratory. Jaylin Gathers is a high school intern with Dr. Mariusz Karbowski. Dr. Anthony DeVico is an Affiliate Professor at the MBC.

Grants and Contract

Dr. Mervyn Monteiro, NIH - Supplemental Funding, "Functional Studies of Ubiquilin," \$96,674, 9/10/07.**Dr. Les Baillie**, Imperial College, "T Cell Epitopes of Anthrax and Plague Vaccine Candidates," \$121,605, 9/30/07.

Dr. Chris Geddes, BioRad Laboratories Inc., "Plasmonic Nanohole Arrays for Multiplexing Sensing," \$345,000, 10/1/07, yr I of 5.

Dr. W. Jonathan Lederer, Leducq Foundation, Leducq European-North American Atrial Fibrillation Research Alliance," \$119,490, 10/1/07, Yr I of 5.

Publications

Kao JP, Barth ED, Burks SR, Smithback P, Mailer C, Ahn KH, Halpern HJ, Rosen GM. Very-low-frequency electron paramagnetic resonance (EPR) imaging of nitroxide-loaded cells. Magn Reson Med. 2007 Sep 26;58(4):850-854.

Lee CI, Yang Q, Perrier V, **Baskakov IV**. The dominant-negative effect of the Q218K variant of the prion protein does not require protein X. Protein Sci. 2007 Oct;16(10):2166-73.

Previte MJ, **Aslan K, Geddes CD**. Spatial and temporal control of microwave triggered chemiluminescence: a protein detection platform. Anal Chem. 2007 Sep 15;79(18):7042-52.

Chowdhury MH, Gray SK, Pond J, **Geddes CD, Aslan K**, Lakowicz JR. Computational study of fluorescence scattering by silver nanoparticles. J. Optical Soc. Am. B-Optical Physics 24 (9): 2259-2267 SEP 2007.

Previte MJR, Geddes CD. Fluorescence microscopy in a microwave cavity. Optics Express 15 (18): 11640-11649 SEP 3 2007.

Aslan K, Zhang Y, Hibbs S, **Baillie L**, Previte MJ, **Geddes CD**. Microwave-accelerated metal-enhanced fluorescence: application to detection of genomic and exosporium anthrax DNA in <30 seconds. Analyst. 2007 Nov;132(11):1130-8.

Aslan K, Malyn SN, Bector G, **Geddes CD**. Microwave-accelerated metal-enhanced fluorescence: an ultra-fast and sensitive DNA sensing platform. Analyst. 2007 Nov;132(11):1122-9.

Aslan K, Malyn SN, **Geddes CD**. Angular-dependent metalenhanced fluorescence from silver colloid-deposited films: opportunity for angular-ratiometric surface assays. Analyst. 2007 Nov;132(11):1112-1121.

Legutki JB, Nelson M, Titball R, Galloway DR, Mateczun A, **Baillie LW.** Analysis of peptide mimotopes of *Burkholderia pseudomallei* xopolysaccharide. Vaccine. 2007 Nov 7;25(45):7796-805.

Albrecht MT, Li H, Williamson ED, Lebutt CS, Flick-Smith HC, Quinn CP, Westra H, Galloway D, Mateczun A, Goldman S, Groen H, **Baillie LW**. Human Monoclonal Antibodies

Blue Sky for UMBI

Dr. Ilia Baskakov spoke at COMB the end of October (see below) on what was billed as "Blue Sky for UMBI." This new initiative, which has not been formally announced, is being developed by the Research Council. The rationale is to explore really speculative research possibilities that address broad societal problems. Dr. Baskakov is a prion and protein folding expert, but he spoke on "Generating electrical power by coupling microbial metabolism to an electron-harvesting system," not his usual topic! By having researchers think outside their usual areas, really innovative approaches to problems may be generated.

against Anthrax Lethal Factor and Protective Antigen Act Independently To Protect against *Bacillus anthracis* Infection and Enhance Endogenous Immunity to Anthrax. Infect Immun. 2007 Nov;75(11):5425-33.

Talks and Travels

Dr. Shengyun Fang, invited speaker, 7th International Meeting on AAA proteins held at the Royal Agricultural College, Cirencester, UK, September 8-13, "SVIP inhibits ER-associated degradation by sequestering p97/VCP and Derlin1 away from gp78."

Dr. Ilia Baskakov, invited speaker, Department of Bioinformatics and Computational Biology, George Mason University, "Protein Misfolding, Prions, Amyloids," September 11.

Dr. Mervyn Monteiro, invited speaker, UMBI Board of Visitors meeting, September 20, "Discovery of novel cellular factors involved in the disposal of potentially toxic misfolded proteins in cells."

Dr. Mariusz Karbowski, invited speaker, 20th NIH Research Festival, Bethesda, MD, September 26, "Role of membrane-associated RING domain E3 Ub ligases in the regulation of organelle homeostasis."

Dr. Chris D. Geddes, presentation, MARCE Regional meeting in Pittsburgh, PA, "Anthrax Detection in Clinical Samples in < 30 seconds" September 26-28, 2007.

Dr. Mariusz Karbowski, invited speaker, The New York Academy of Sciences symposium on "Mitochondria & Oxidative Stress in Neurological Disorders," New York, NY, September 28, "Mitochondrial membrane quality control in cell life and death."

Dr. Joe Kao, invited speaker, Gordon Research Conference on Cannabinoid Function in the CNS, Les Diablerets, Switzerland, September 30-October 5, "Controlling endocannabinoid signaling with light"."

Dr. Ilia Baskakov, invited speaker, "Protein Misfolding, Prions, Amyloids," Moscow State University, School of Biology, Moscow, Russia, October 2.

Dr. Chris Geddes, invited speaker, Chemistry Department, Portland State University, OR, "Microwave-Accelerated Plasmonics," October 12, 2007.

Dr. W. Jonathan Lederer gave the 9th Annual Fred Fay Lecture at the University of Massachusetts School of Medicine entitled "Shooting Sparks: Currents, Calcium and Confocals" on October 29, 2007.

Dr. Ilia Baskakov, invited speaker, "Generating electrical power by coupling microbial metabolism to an electron-harvesting system," COMB, UMBI, October 31.