

BIOCHEMISTRY & MOLECULAR BIOLOGY TODAY

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Chair's Message

Labor Day weekend marks the beginning of our new academic year. This year it follows a relatively calm summer in terms of tropical weather and continuing recovery efforts, both at UTMB and at home for many. The year ahead looks promising, with opportunities arising from the Texas Cancer Research initiative as well as ongoing stimulus efforts by NIH. I personally feel that this will be a good year for the entire BMB family.

We continue to pursue the full recovery of our cryoEM and NMR facilities, and we have also set in motion the recruitment of senior faculty with expertise in mouse genetics and NMR. We are also developing partnering agreements with other Centers and Departments to bring on board faculty with interests that match our

research strategic aims, discussed last winter at the research faculty retreat. I will provide more information as those plans mature. We are also keeping tabs on the renovation of the BSB 5th floor, as this will help our restricted space situation.

Over the next couple of months we will know more details about efforts to increase the quality of our graduate research training programs and address the career needs of our postdocs and research scientists. I know that the transition period for all these will be difficult for some of our faculty, but I know that in the end our education and research programs will benefit.

Another goal for this year will be to develop a more user-friendly database containing faculty information that will not only aid us in anticipating faculty needs, but also



stimulate intramural collaborative efforts.

Please make yourself available if at all possible for the upcoming BMB graduate program orientation event. While on the subject of our education mission, I want to thank all of the faculty that stepped forward to teach in the medical school courses when a severe shortfall developed some weeks ago. I know how busy you all are, and I appreciate your help.

A number of capital improvements will be taking place during this semester. While somewhat disruptive, we do need to improve our infrastructure.

Have a great semester!

regino

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Special Items of Interest

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Awards and Announcements

Anasuya Roychowdhury, graduate student in Dr. W. Bujalowski's lab received the following awards:

- ✦ Biochemistry and Molecular Biology (BMB) Travel Award, UTMB, Galveston, Texas.
- ✦ The Protein Society Finn Wold Travel Award at "The 23rd Annual Symposium of The Protein Society; PROTEINS IN MOTION"; July 25-29, 2009; Boston, Massachusetts for her poster entitled "DnaB-DnaC Complex with Nucleotide Cofactors: An Allosteric Control of Recognition Process in DNA Replication."



Christof Straub, graduate student in Dr. Alexander Kurosky lab, received James McLaughlin Predoctoral Grant in Infection and Immunity. This predoctoral fellowship for exceptionally well qualified students enrolled in the Graduate School of Biomedical Sciences at UTMB will support Christof's project "HMGB1: a novel cytokine mediating immunoregulatory functions of eosinophil". Congratulations

Grants

Dr. Kay Choi was recently awarded a NIH Western Regional Center of Excellence career developmental award. The title of her proposal is "Structural and Biochemical Characterization of Japanese Encephalitis Virus Vaccine Candidates"

Ramana, Kota V was awarded ; NIH RO1 from the National Eye Institute/ARRA. The title of the grant is "Amelioration of Uveitis by Aldose Reductase Inhibition".

BCSO News

The BCSO would like to invite all BMB members to the Biochemistry Journal Club. The next meetings will be Wednesday, September 23 (Austin Elam presenting research in progress) and Wednesday, October 7 (Emilio Reyes-Aldrete presenting a paper). All meetings are held in room MRB 2.308 from 11:00 AM to 12:00 PM. The BCSO would like to whole-heartedly thank the Sealy Center for Structural Biology and Molecular Biophysics, and especially Dr. Vincent J. Hilser, for providing food and drinks for the Journal Clubs.

-Christof Straub, BCSO Chair

Graduate Program News

We have a full month of activities and many congratulations are in order. There are five new BMB students joining labs: Kimberlee Burckart, Carney/Sastry laboratories, Ling Fang, Brasier laboratory, Cheryl Hart, Sastry/Carney laboratories, Paige Spencer, Barral/Hilser laboratories and Yao Xiao, Hilser laboratory.

We have three incoming students who will join the MBET Track. Alexandre Esadze, in rotation with the Iwahara laboratory, Matthew Leitch, in rotation with the Braun laboratory, and Levani Zandarashvili, in rotation with the Choi laboratory.

The second year MBET students have joined their labs. Andrea Garces in the James C. Lee laboratory, Jing Li in the Vincent Hilser laboratory and Wenzhe Lu in the Werner Braun laboratory; we know there will be some exciting experiments done during their education.

Major congratulations are in order for Christof Straub, Kurosky laboratory, for receiving the McLaughlin Fellowship and Cheryl Hart, Sastry/Carney laboratories, for receiving the Environmental Toxicology Training Fellowship. Anasuya Roychowdhury, Bujalowski laboratory, Austin Elam, Hilser laboratory and Christof Straub, Kurosky laboratory are all winners of the 2009 BMB Travel Award.

We are also in the planning stages of our first BMB/MBET Graduate Program Retreat, Friday October 23rd from 1pm – 4:30pm so look for more details in the coming weeks.

The following students have passed their qualifiers and will now be applying to candidacy: Christof Straub, Kurosky laboratory; Tianxin Yu, C. Liu laboratory and Michal Szymanski, Bujalowski laboratory.

-Debora Botting



ONLINE Research Coordinator's Corner
www.bmb.utmb.edu/department/RCC/

IT Briefs—Lisa Pippet

What is MyCITRIX and what is it used for?

Have you ever been at home or away on business and needed a file on the server, or needed to open a Microsoft Excel file from a computer that does not have Excel installed? Or simply just wished to have access to a UTMB computer with software?

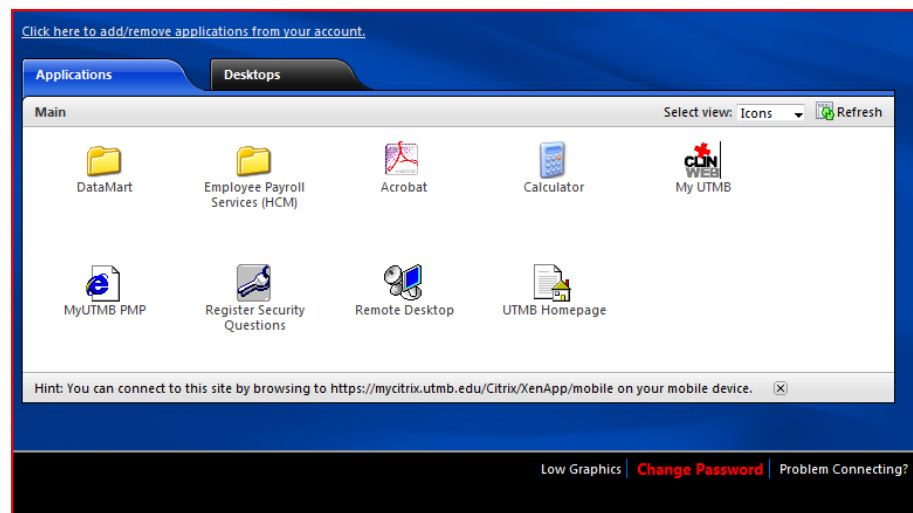
YOU CAN—The answer is MyCitrix.

MyCitrix is a web portal that allows you to connect to applications that are published via Citrix. If you need to use a program, but it isn't installed on your home PC, you can login to MyCitrix and get access to the program. Some of the programs that are available: Microsoft Office, MyUTMB, Outlook and Online Training.

To get started, navigate to <http://mycitrix.utmb.edu/>. If you don't have the Citrix Web Client installed, you will get a message stating "We are unable to detect the appropriate client software on your computer to allow you to launch your applications." If you get this message then click on the link that says, "click here to obtain the client software". Then click on the Download button. The install should begin. After installation is complete, login using your email username and password.

- You do not need a VPN connection to use MyCitrix. MyCitrix will give you direct access to the software.
- MyCitrix can also be used to unlock your account without having to call the help desk if you get locked out. You can also change your password using my citrix.

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Publications

Tsalkova T, Blumenthal DK, Mei FC, **White MA**, Cheng X. Mechanism of EPAC activation: Structural and functional analyses of EPAC2 hinge mutants with constitutive and reduced activities. *J Biol Chem.*284;23644 – 23651, Aug. 28, 2009 [Epub-2009 Jun 24]. PMID: 19553663

Ravindran, A., Joseph, P.R., **Rajarithnam, K.** Structural Basis for Differential Binding of the Interleukin-8 Monomer and Dimer to the CXCR1 N-Domain: Role of Coupled Interactions and Dynamics. *Biochemistry*, 2009 Aug 25. [Epub ahead of print]

Clore, G. M., **Iwahara, J.** (2009) Theory, practice, and applications of paramagnetic relaxation enhancement for the characterization of transient low-population states of biological macromolecules and their complexes. *Chemical Reviews* 109, 4108-4139.

Umesh C.S. Yadav, Amarjit S. Naura, Leopoldo Aguilera-Aguirre, **Kota V. Ramana**, Istvan Boldogh, Sanjiv Sur, Hamid A. Boulares, and **Satish K. Srivastava**. Aldose Reductase Inhibition Suppresses the Expression of Th2 Cytokines and Airway Inflammation in Ovalbumin-Induced Asthma in Mice. *Journal of Immunology* (In press).

Aramati B.M. Reddy, **Satish K. Srivastava, Kota V. Ramana**; Anti-inflammatory effect of aldose reductase inhibition in murine polymicrobial sepsis. *Cytokine*, 2009. in press.

Umesh CS Yadav, **Kota V Ramana**, Leopoldo Aguilera-Aguirre, Istvan Boldogh, Hamid A Boulares and **Srivastava SK**. Inhibition of Aldose Reductase Prevents Experimental Allergic Airway Inflammation in Mice. *PLoS ONE*. 2009. in press

Kalariya NM, Wills NK, **Ramana KV, Srivastava SK**, van Kuijk FJ. Cadmium-induced apoptotic death of human retinal pigment epithelial cells is mediated by MAPK pathway. *Exp. Eye Res.* 2009. In press

Kalariya NM, **Ramana KV, Srivastava SK**, van Kuijk FJ. Genotoxic Effects of Carotenoid Derived Aldehydes in Human Retinal Pigment Epithelial Cells. *Cur Eye Res.* 2009. In press

Sarah J Hemauer, Svetlana L Patrikeeva, Tatiana N Nanovskaya, Gary D.V. Hankins, Mahmoud S Ahmed. Opiates inhibit paclitaxel uptake by P-glycoprotein in preparations of human placental inside-out vesicles. *Biochemical Pharmacology*. In Press.

Faculty on the Road

J. Regino Perez-Polo attended the Military Health Research Forum 2009 in Kansas City, Mo. August 31 – Sept. 03, 2009. He presented both an oral symposium session and a poster session "Role of IL-1 and TNF receptor activation in neurological deficits after TBI" J.R. Perez-Polo et al.

