

**CHAIRMAN'S COLUMN:**

Summer is here. A good indicator was the graduation exercises for the Graduate School this last Saturday. It was a joyful occasion; graduations are always upbeat events. Personally, I was hooding two of my students, an event surrounded by traditions going back to the roots of academia that is always extremely gratifying -- the launching of our academic offspring into the world, as it were. This year was even more special, as one of our colleagues, Wayne Bolen, received the Distinguished Teaching Award from all of the students in the Graduate School. I think Wayne's heartfelt and simple words of acknowledgement reflected well on the reasons both faculty and staff hold him in such high regard. He evokes well-deserved respect and admiration. As a special treat, Dr. Cynthia Robbins-Roth spoke as the recipient of the Distinguished Alumnus Award. I believe she is the third or fourth HBCG (pre-BMB) alumna so honored. It was a good way to spend Saturday morning. And, don't forget that June 3 is the Graduation of the Medical Students; as always, we expect at least a third of our faculty to show up in their academic regalia.

We are very happy that John Papaconstantinou has been elected to the Texas Academy of Health Sciences Education. We will celebrate this well-deserved honor at a reception at the Rosenberg House on May 17.

After some heroic efforts from Ron Shen, we have met our quota for teaching slots for the medical school classes for next year on time. This coming week we will find out if there are opportunities to increase our commitment. As we have discussed, new budget alignment policies make it clear that our State funding would be in line with a larger teaching effort for medical students. In a time of uncertain external research funding and diminishing state support, it makes sense to take advantage of this opportunity. I must add that I was very pleased with the very high level of cooperation that I witnessed in the face of uncertain data and some communication problems. Obviously, the new system has flaws that place some of our faculty at a disadvantage. We must try to rectify these errors in assignment of teaching credit. Over the summer, I would like to address the issue of SOM teaching in the fourth year. While I have convinced many of our faculty of this option, we have a dearth of medical students signing up for these courses. We must find out why, and how to best rectify that situation. In summary, thank you all for your help and willingness to help. Special thanks to Ron; he persevered and was successful.

While giving thanks...The You Count numbers are in and our Department exceeded our goal of 50% participation by 17%! Again, this will make the results useful to identify areas that need improvement in the running of the Department. Again, thank you very much.

The weeks ahead will be an important time as we negotiate our budgets for next year. The projected changes in the Center and Core funding are likely to have an impact on all of us. Marianne and I are working hard to make sure that we can continue carrying out our plans to provide better administrative services to our faculty and students and invest in new ventures that will allow us to develop new programs. I hope that by the next newsletter I can be more specific.

Speaking of budgets, you can help the SOM budget balance sheet simply by taking your vacations this summer. If it were not good for the budget, vacations are an important part of maintaining a balanced professional life. So now is the time to make that decision and discuss it with your co-workers so that time off can be scheduled to everybody's satisfaction.

Our faculty recruitment efforts continue, and I am hopeful that by mid-June Jim will be able to give us a summary of a successful effort.

We have heard much about electronic submission of grants to the NIH. This June deadline will require all R021 and R03s to be submitted in that fashion. By February of next year, R01s will also have to be submitted electronically. I have just returned from a visit to NIH and heard horror stories about electronic submissions. I was told of people calling in the morning with a question, getting one answer, and calling again a few hours later for advice and getting different answers. Bottom line: if you are planning to submit an R21 or R03 this June, start working **now** on the submission process. Hopefully, by next February things will have been worked out.

Our Department is fortunate to have the services of an expert grantswriter, Dr. David Konkel, the Departmental Research Coordinator. He provides his services essentially on a first come, first-served basis. Given the ever-decreasing payline for NIH grants, the number of grants submitted by our faculty has increased significantly. At times the number of requests for assistance exceed Dr. Konkel's capacity to provide it effectively. This is particularly likely to be a problem in the final 2-3 weeks leading up to the major NIH grant deadlines, such as those now approaching on June 1 and July 1.

Since Dr. Konkel's salary is paid by the Department, I have decided that when necessary he should prioritize his assistance based on explicit criteria. First, grants have priority over manuscripts. Second, applications whose PI (or project leader, for a component of a Program Project) has a primary appointment in BMB or SCMS. Third, applications where a BMB/SCMS faculty member is an important co-Investigator, but not the PI in a grant. Fourth, fellowship applications by graduate students or post-docs working with BMB or SCMS faculty. The fellowship applications normally have different deadlines than research grants, so there's rarely a conflict.

Dr. Konkel assures me that he will ordinarily have time to provide a detailed markup of at least the Abstract and Specific Aims sections of all grants. He will also have more time to spend on the lower-priority grants outside of the peak load periods immediately before major deadlines, so the take-home message is to start working on your grant as soon as feasible, and get it to him as early as possible, especially if you belong to a group with lower priority for his services. Although we all hope that Federal funding levels will improve soon, the NIH leadership admits that this is not expected to happen for at least five years.

As an aside, when preparing grants a lot of time and effort can be saved if instead of using Word as the final document with PowerPoint insertions, one uses Publisher. The result is figures that do not jump! Lisa Piper is willing to instruct our staff and will start a training program of staff who request instruction. Faculty who like to prepare their own grants and papers may also ask her.

Beginning with this issue we are introducing abstracts of papers published by our faculty for your perusal. This will be an initial attempt to provide information in our Newsletter about our faculty. These are evolving aspects of a revamping of our Website, design of a departmental logo, and expanded and (we hope!) more useful Newsletter, all of which will better serve our increased participation in multi-investigator approaches to biomedical research. We would like to use our Newsletter as a forum to provide news about our activities and Departmental members to our academic community at UTMB.

As you all know, the Biological Chemistry Student Association has initiated a fund drive for an endowment that will provide an annual award to a BMB student in an effort to recognize excellence and enhance the opportunities of all students. I have announced that the Department will match faculty gifts to a total of \$1,000. To stimulate the process further, I will personally match faculty gifts to a total of \$500 and alumni awards to a total of \$500. This should ensure an initial minimal contribution of \$3,000.

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## **ADMINISTRATOR'S NOTES:**

### **RESEARCH COMPLIANCE TRAINING FOR FACULTY MEMBERS: UPCOMING SESSIONS**

A special training session for BMB faculty is scheduled for Thursday, May 25 from 2:00 to 4:00 pm in the Basic Science Building Auditorium. Both of the one-hour mandatory classes will be presented at the session: "Level of Effort Discussions for PI's" and "Financial Responsibilities for Sponsored Projects".

For BMB faculty members' convenience, Research Services will be scheduling two additional "back-to-back" sessions in BSB. As soon as dates have been identified for the added sessions, the information will be sent to all faculty members who have not yet completed the training.

### **RENOVATION UPDATE**

The construction phase of the lab renovation project on the 6th floor of BSB is scheduled to begin on Monday, May 22. Detailed information about "what to expect" will be provided to occupants of BSB spaces during the week of May 15. The contractor selected to build the project is the same company that built the new Papaconstantinou labs. Their familiarity with the building and with the types of activity that are on-going here will be a positive factor in the effort to complete the project with as little impact on building occupants as possible. Please contact me if there are any questions about the work the contractor will be performing.

## **EMERGENCY PREPAREDNESS**

Through the next several weeks, meetings on emergency management will be scheduled by the Emergency Preparedness Office in conjunction with Environmental Health and Safety. Separate meetings will be scheduled to address general issues relating to campus operations, as well as specific questions relating to laboratories and clinical services. The meetings will incorporate discussion of action to be taken in advance of a predicted major storm, as well as management of other emergencies such as a sudden power failure. The departments of Logistics and

Environmental Health and Safety have assured administrators that emergency preparation measures have been revised taking into consideration the problems encountered during the preparations for Hurricane Rita. We will forward information about scheduling of the meetings as well as specific instructions for emergency planning as soon as they are available.

Marianne

## **FACULTY ON THE ROAD**

Dr. D. Wayne Bolen

- April 28, 2006, Houston, TX to attend the Keck seminar at Rice University.

Dr. Werner Braun

- April 05-06, 2006, Galveston, TX to attend Bugs, Drugs & Vaccines: Securing Our Future meeting at Moody Gardens.

Dr. Darrell H. Carney

- April 04, 2006, Tempe, AZ for an Orthologic collaboration with the University of Alabama faculty members Drs. Gerald Fuller and Rosa Serra.

- April 19-20, 2006, Atlanta, GA to participate in a GTECH National Institutes of Health Site Visit.

- April 21, 2006, Birmingham, AL to meet with Dr. Gerald Fuller to review the Receptor Project and Conflict of Interest Review.

Dr. David G. Gorenstein

- April 05-06, 2006 Galveston, TX to attend Bugs, Drugs & Vaccines: Securing Our Future meeting at Moody Gardens.

- April 18-20, 2006, San Francisco, CA to attend the National Heart, Lung and Blood Institute Proteomics Conference.

Dr. Alexander Kurosky

- April 18-21, 2006, Palo Alto, CA to attend the National Heart, Lung and Blood Institute meeting.

Dr. James C. Lee

-March 30-April 05, 2006, San Francisco, CA to attend the Journal of Biological Chemistry Editorial Board/Experimental Biology 2006 meeting.

Dr. Bruce A. Luxon

- April 12, 2006, Houston, TX to attend Pathway meeting at Rice University.

- April 13, 2006, Houston, TX to do review of Keck fellowship.

- April 18-20, 2006, San Francisco, CA to attend the National Heart, Lung and Blood Institute Proteomics Conference.

Dr. Ana Pajor

- April 05-08, 2006, Tuscan, AZ to attend a meeting in honor of Dr. Bill Dantzles.

Dr. Konrad Pazdrak

- April 18-20, 2006, Palo Alto, CA to present the poster entitled, "Phosphoproteomic Profiling of Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF)-Dependent Activation of Human Eosinophils" at the National Heart, Lung and Blood Institute Proteomics Group Meetings.

Dr. Jeffrey P. Rabek

- April 10, 2006, Houston, TX to participate in EMSAP (Early Medical School Acceptance Program) interviews.  
- April 11, 2006, Prairie View, TX to participate in EMSAP interviews.  
- April 24-25, 2006, Bethesda, MD to attend the Claude Pepper Older Americans Independent Center annual meeting.

Dr. Joerg Roesgen

- April 28, 2006, Houston, TX to attend the Keck seminar at Rice University.

Dr. Catherine H. Schein

- April 05-06, 2006 Galveston, TX to attend Bugs, Drugs & Vaccines: Securing Our Future meeting at Moody Gardens.

Dr. Michael Sherman

- April 05-06, 2006, Galveston, TX to attend Bugs, Drugs & Vaccines: Securing Our Future meeting at Moody Gardens and to present a poster entitled, "Center for Advanced Ultrastructural studies of Biodefense and Emerging Infectious Pathogens".

Dr. Satish K. Srivastava

- March 31-April 06, 2006, San Francisco, CA to attend the 2006 Experimental Biology Conference and present an abstract entitled, "L-Arginine alleviates hyperglycemia-induced vascular inflammation in diabetic mice".

Dr. Cheryl S. Watson

- March 30-April 01, 2006, Champaign-Urbana, IL to present a seminar on her research work on environmental estrogens at the University of Illinois Veterinary Medicine Toxicology Program.  
- April 28, 2006, Austin, TX to attend a meeting with Dr. George Bittner of CertiChem, Inc. and UT-Austin to give the seminar entitled, "Xenoestrogen screening assays".

Dr. Shanmin Zhang

- April 20-24, 2006, Palo Alto, CA to attend the Varian User's Meeting at the 47th Experimental Nuclear Magnetic Resonance Conference (ENC).

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**CONGRATULATIONS!! CONGRATULATIONS!!**

**TO Dr. Aaron Lucius**, Postdoctoral Fellow in Dr. Wlodek Bujalowski's lab, who has been offered and has accepted a tenure-track faculty position at the University of Alabama at Birmingham in the Department of Chemistry.

**To Dr. Papaconstantinou** who has been selected as a Member-Elect of the University of Texas Academy of Health Science Education. He will be formally recognized at the annual meeting of the Academy in October. Dr. Buja, President of the Academy, said Dr. Papaconstantinou was selected because of his excellent contributions to health science education. The Academy was recently been created to recognize outstanding teachers within The University of Texas System health institutions. The requirements for membership to the Academy are strict and based on teaching excellence. Dr. Papaconstantinou joins the rank of an elite group of educators from all of the UT-System health components. This is a very prestigious honor! **WAY TO GO DR. PAPA!** You make us so proud!

**To Diana Cittelly** who has been selected as one of sixteen **TOP STUDENT FINALISTS IN THE STUDENT ABSTRACT COMPETITION** for the National Neurotrauma Society 2006 Symposium in St. Louis, MO July 7-9, 2006 for the poster entitled "Exogenous TAT- Bcl-xL Decreases Spinal Cord Injury Induced-Apoptotic Cell Death But Impairs Long-Term Outcome" by authors: Diana Cittelly, Olivera Nestic-Taylor and Regino Perez-Polo.

Featured Abstracts by Our Faculty

[Novel Cross Talk of Kruppel-Like Factor 4 and Beta-Catenin Regulates Normal Intestinal Homeostasis and Tumor Repression](#)

Wen Zhang, Xi Chen, Yoichi Kato, Paul M. Evans, Subo Yuan, Jun Yang, Piotr G. Rychahou, Vincent W. Yang, Xi He, B. Mark Evers and Chunming Liu

Epithelial cells of the intestinal mucosa undergo a continual process of proliferation, differentiation, and apoptosis which is regulated by multiple signaling pathways. The Wnt/beta-catenin pathway plays a critical role in this process. Mutations in the Wnt pathway, however, are associated with colorectal cancers. Kruppel-like factor 4 (KLF4) is an epithelial transcriptional factor that is down-regulated in many colorectal cancers. Here, we show that KLF4 interacts with beta-catenin and represses beta-catenin-mediated gene expression. Moreover, KLF4 inhibits the axis formation of *Xenopus* embryos and inhibits xenograft tumor growth in athymic nude mice. Our findings suggest that the cross talk of KLF4 and beta-catenin plays a critical role in homeostasis of the normal intestine as well as in tumorigenesis of colorectal cancers.

[Transmembrane Helices 3 and 4 Are Involved in Substrate Recognition Na<sup>+</sup>/Dicarboxylate Cotransporter, NaDC1](#)

Naomi Oshiro, Steven C. King and Ana M. Pajor

ABSTRACT: The Na<sup>+</sup>/dicarboxylate cotransporters (NaDC1) from mouse (m) and rabbit (rb) differ in their ability to handle glutarate. Substrate-dependent inward currents, measured using two-electrode voltage clamp, were similar for glutarate and succinate in *Xenopus* oocytes expressing mNaDC1. In contrast, currents evoked by glutarate in rbNaDC1 were only about 5% of the succinate-dependent currents. To identify domains involved in glutarate transport, we constructed a series of chimeric transporters between mouse and rabbit NaDC1. Although residues found in multiple transmembrane helices (TM) participate in glutarate transport, the

most important contribution is made by TM 3 and 4 and the associated loops. The R(M3-4) chimera, consisting of rbNaDC1 with substitution of TM 3-4 from mNaDC1, had a decreased  $K_{0.5}$  glutarate of 4 mM compared with 15 mM in wild-type rbNaDC1 without any effect on  $K_{0.5}$  succinate. The chimeras were also characterized using dual-label competitive uptakes with  $^{14}\text{C}$ -glutarate and  $^3\text{H}$ succinate to calculate the transport specificity ratio (TSR), a measure of relative catalytic efficiency with the two substrates. The TSR analysis provides evidence for functional coupling in the transition state between TM 3 and 4. We conclude that TM 3 and 4 contain amino acid residues that are important determinants of substrate specificity and catalytic efficiency in NaDC1.

### [Thioredoxin-ASK1 Complex Levels Regulate ROS-Mediated p38 MAPK Pathway Activity in Livers of Aged and Long-Lived Snell Dwarf Mice](#)

Ching-Chyuan Hsieh and John Papaconstantinou

**ABSTRACT** We have proposed that the age-associated increase of reactive oxygen species (ROS) by electron transport chain (ETC) dysfunction may cause the elevated basal level of p38 MAPK stress response pathway activity. However, the mechanism by which ROS activates this pathway is not clear. Here we propose that activation of the p38 MAPK pathway by complex I (CI) generated ROS, in response to rotenone (ROT) treatment, is based on the ability of reduced Trx to bind to and inhibit ASK 1 and its release from the complex upon oxidation. This balance of free vs. bound ASK1 regulates the level of p38 MAPK pathway activity. To support this mechanism we demonstrate that the production of ROS by ROT treated AML12 hepatocyte cells dissociates the Trx-ASK1 complex, thereby increasing p38 MAPK pathway activity. This mechanism is supported by the ability of N-acetyl cysteine (NAC) to prevent dissociation of Trx-ASK1 and activation of the p38 MAPK pathway. We also demonstrated that the ratio of ASK1/Trx-ASK1 increases in aged mouse livers and that this correlates with the increased basal activity of the p38 MAPK pathway. The longevity of Snell dwarf mice has been attributed to their resistance to oxidative stress. A comparison of the levels of Trx-ASK1 in young and aged dwarfs showed a higher abundance of the complex than in their age-matched controls. These results, which are indicative of a decreased level of oxidative stress, suggest that increased ROS production in aged liver may alter the ratio of ASK1 and Trx-ASK1, thereby increasing the age-associated basal level of p38 MAPK pathway activity.

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## **PUBLICATIONS, GRANTS & AWARDS**

### **Publications:**

[Sarita K. Sastry, Zenon Rajfur, Betty P. Liu, Jean-Francois Cote, Michel L. Tremblay and Keith Burridge: PTP-PEST couples membrane protrusion and tail retraction via VAV2 and p190RhoGAP Journal of Biological Chemistry, 2006 published online ahead of print March 2, 2006.](#)

Srivastava, S., Ramana, K.V., Tammali, R., Srivastava, S.K. and Bhatnagar, A. Contribution of aldose reductase to diabetic hyper-proliferation of vascular smooth muscle cells. *Diabetes* 55: 901-910, 2006.

Pladzyk, A., Ramana, K.V., Ansari, N.H. and Srivastava, S.K. Aldose reductase prevents aldehydes toxicity in cultured human lens epithelial cells. *Exp. Eye Res.* (In Press).

Singh, R., White, M.A., Ramana, K.V., Petrash, J.M., Watowich, S.J., Bhatnagar, A. and Srivastava, S.K. Structure of glutathione-conjugate bound to the active site of aldose reductase. *Proteins* (In Press).

Ramana, K.V., Bhatnagar, A., Awasthi, S., Yadav, U.C.S., Awasthi, Y.C. and Srivastava, S.K. Mitogenic responses of vascular smooth muscle cells to lipid peroxidation-derived aldehydes 4-hydroxy-trans-2-nonenal (HNE): Role of aldose reductase-catalyzed reduction of the HNE-glutathione conjugates in regulating cell growth. *J. Biol. Chem.* (In Press).

### **Grants:**

"High-Throughput Screening for Vaccine, Therapeutics, and Protein-Stabilizing Conditions". Principal Investigator: Vincent J. Hilser, Co-PI's: David Wayne Bolen, Stanley M. Lemon, Lawrence R. Stanberry, and David H. Walker. Key contributions are acknowledged from Jörg Rösigen for development of essential scientific aspects of the grant and David Konkel for grant coordination. Agency: Department of Defense, Army Research office, Life Sciences Division. Period: 05/01/06 - 04/30/07.

"Computational and Structural Biology in Biodefense". Principal Investigator: David G. Gorenstein. Agency: National Institutes of Allergies & Infectious Diseases"; Type: T32. Period: 09/01/05 - 07/31/10.

"Mechanism(s) of TCE-Mediated Autoimmunity." Principal Investigator: G.A.Shakeel Ansari; Agency - NIH, National Institute of Environmental Health Sciences; Type: 5R01 ES11584-04; Period: 05/01/06 - 04/30/07.

"Role of Aldose Reductase in Diabetic Complications". Principal Investigator: Dr. Satish K. Srivastava, Agency - NIH/NIDDK, National Institute of Diabetes and Digestive and Kidney Diseases; Type: 5 R37 DK036118-18, Period: 06/01/2006-05/31/2007.

"Impact of Naturally Occurring Osmolytes on Protein Structure and Energetics". Principal Investigator: Dr. Wayne Bolen; Agency - NIH, National Institute of General Medical Sciences ; Type: 2R01 GM049760-13, Period: 04/01/06 - 03/31/10.

"T32 in Computational and Structural Biology and Biodefense". Principal Investigator: David G. Gorenstein; Agency - National Institutes of Health; Type: H 1 T32 A1065396; Period: 07/01/05 - 06/30/10.

"Mechanism(s) of TCE-Mediated Autoimmunity." Ghulam A. S. Ansari; NIH, National Institute of Environmental Health Sciences; 5R01 ES 011584-04, 06/20/2003 - 04/30/2008.

### **Abstracts:**



Nitro-tyrosine Modifications of Muscle Creatine Kinase in Vastus lateralis from Hemiparetic Stroke Patients, J. P. Rabek<sup>1,2</sup>, J. E. Nuss<sup>1</sup>, J. K. Amaning<sup>1</sup> and J. Papaconstantinou<sup>1</sup>, Department of Biochemistry and Molecular Biology<sup>1</sup> and Family Medicine<sup>2</sup>, The University of Texas Medical Branch, Galveston, TX, R. F. Macko, and C. Hafer-Macko. Baltimore VA and University of Maryland School of Medicine, University of Maryland, Baltimore, MD., Presented at the Claude Pepper Older Americans Independence Centers Annual Meeting, Bethesda, MD, April 24-25, 2006.

Ascertaining the Structural and Functional Consequences of the Age-Associated Oxidative Modification of Creatine Kinase, J.E. Nuss<sup>1</sup>, J.K. Amaning<sup>1</sup>, J.P. Rabek<sup>1,2</sup>, and J. Papaconstantinou<sup>1</sup>, Department of Biochemistry and Molecular Biology<sup>1</sup> and Family Medicine<sup>2</sup>, The University of Texas Medical Branch, Galveston, TX. Presented at the Claude D. Pepper Older Americans Independence Centers Annual Meeting, Bethesda, MD, April 24-25, 2006.

## **WELCOME NEW EMPLOYEES**

Seema Dwivedi, Postdoctoral Fellow in Dr. Awasthi's lab.

Edna Tirado Sanchez, Postdoctoral Fellow in Dr. Naseem Ansari's lab.

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## **May Birthdays**

Dr. Wayne Bolen – 23rd

Wilma Frye – 05th

Tzintsun Garcia – 11th

Xiaoming Hu – 12th

Dr. Myung Lee – 19th

Jacky Luxon – 15th

Robert Malmstrom – 15th

Margie Wronski – 30th

## *Graduate Program Notes - Lillian Chan*

### **STUDENTS**

**GSO** Congratulations to two of our students for being elected by their peers to serve as officers of the Graduate Student Organization in the upcoming academic year:

GSO President      **Austin Elam** (BSCB 1 st year student)

GSO Treasurer      **Corey Theriot** (Mitra laboratory).

**BCSO** Our BMB graduate student association, BCSO, has initiated a fund drive to endow an award, the BSCO Student Award, for students within our Program. Faculty members are asked to give generously and support this important award. The Department will match personal contributions by our faculty up to a total of \$1,000. Please contact Ann Anderson or Diana Ferrari if you would like to assist our students in this most worthy endeavor.

**Vincent Dimayuga** We want to share an update regarding one of our students who is serving in the war. Vincent Dimayuga was called back into the Reserves in 2004 and has been serving in Iraq . We recently received this update from his father, Mr. Dimayuga...“Vincent is doing okay; he is the commander of a convoy going from a small town to Baghdad (very dangerous) and does not have time to write to us just now. We were hoping Vincent would get assigned to the embassy in Jordan , but so far that hasn't happened. Vincent often says that he is anxious to get back to UTMB to finish his graduate studies. Vince says it's very chaotic where he is; there is much violence, not stable at all. Please keep Vincent in your thoughts and prayers.”

## FACULTY

**Dr. Wayne Bolen** is the winner of the 2006 GSO - Distinguished Faculty Teaching Award. This prestigious award is voted on by the student members of the Graduate Student Organization. Dr. Bolen, a much respected and appreciated teacher, will receive this award at the GSBS Commencement Ceremony on May 6th , 2006. Congratulations for a well-deserved honor!

**Dr. John Papaconstantinou** is member-elect of the University of Texas Academy of Health Science Education. He will be formally recognized at the annual meeting of the Academy in October, 2006.

The Academy has recently been formed to recognize outstanding teachers in The University of Texas System health institutions. The requirements for membership to the Academy are strict and based on excellence in teaching. Dr. Papaconstantinou will join an elite group of educators (13 current members) from all of the UT System health institutions. This is a rare and prestigious honor, and we are SO proud!

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## TEACHING

**Teaching Credits** The GSBS has expanded its list of credit-bearing teaching contributions to include service on Qualifying Exam (written and/or oral) and Supervisory Committees. If you served on any such committee in the 2006 spring term, please send Debora Botting the name(s) of the student(s) and your role (chair or member). *If you have suggestions for other teaching activities to be included in the GSBS's list, please send those ideas to our Program office.*

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## The Annual Sealy Center for Molecular Science "Science Forum"

On behalf of the Science Forum Committee:

B . Mark Evers, Director, Sealy Center for Cancer Cell Biology

R. Konig, Scientist, Sealy Center for Molecular Science

J. Regino Perez-Polo, Interim Director, Sealy Center for Molecular Science

NOTICE: We are pleased to announce the annual Sealy Center for Molecular Science "Science Forum" which is being co-hosted by the Sealy Center for Cancer Cell Biology. Please set aside the date, **Wednesday, June 07, 2006** to attend. POSTERS from the Sealy Center for Molecular Science and Sealy Center for Cancer Cell Biology will be available for viewing all day on June 7th in the Dining Room of Levin Hall. Participants are asked to put up their posters between the hours of 9:00 a.m. - 3:30 p.m. on Tuesday, June 6, 2006 in the Dining Room of Levin Hall. Cash prizes will be awarded for the best poster in both the graduate student and postdoctoral categories.

Keynote Address

**"The IKK Complex: Linking Inflammation and Cancer"**

11:30 a.m.

Levin Hall Auditorium South

**Michael Karin, Ph.D.**

Professor, Department of Pharmacology

University of California

La Jolle, California

Future announcements will bring you more details.

### **BCSO Student Award**

The Biological Chemistry Student Organization (BCSO) is introducing a new award, the **BCSO Student Award**, available to all students in the Department of Biochemistry & Molecular Biology (BMB). The BCSO Student Award will honor a student that has significantly contributed to the growth and development of the BMB Department via BCSO or other means, while maintaining a high academic standard. Unlike other awards, the BCSO Student Award is created for students, by students. Thus, this peer-recognition award will be the first of its kind in the BMB Department. The recipient of the BCSO Student Award will receive a monetary award of \$1,000 and have his/her name engraved on a plaque to be displayed outside of the Basic Science Building's Auditorium. Details of the requirements and application process can be found on the BCSO web page:

[http://www.hbcg.utmb.edu/graduate\\_program/BCSO/bcso\\_award.html](http://www.hbcg.utmb.edu/graduate_program/BCSO/bcso_award.html)).

The BCSO Student Award Committee is currently soliciting monetary contributions from the faculty and alumni of the Department to reach their endowment goals. **We encourage faculty members that have not been able to make their donations as yet to contribute generously to the award fund. Your donation is tax deductible. Please do take this opportunity to support the UTMB Family Campaign.**

Donations can be made by contacting Ann Anderson (Email: [ananders@utmb.edu](mailto:ananders@utmb.edu); Phone: (409) 747-1233).

## **BIOINFORMATICS WORKGROUP**

The Bioinformatics Program Presents: "New Directions in Bioinformatics"

Tuesday, May 30, 2006

04:00 - 05:00 p.m.

Levin Hall South Auditorium (Room 2.222)

Presented by the Faculty and Staff of the Bioinformatics Program  
Department of Biochemistry and Molecular Biology

Everyone interested in bioinformatics, genomics, proteomics and metabonomics is invited to attend!

For more information about the Bioinformatics Workgroup meetings or how to set up an appointment with the Bioinformatics Staff, contact Lori Blackwell at [loblackw@utmb.edu](mailto:loblackw@utmb.edu) or (409) 747-6876.

Visit our website: [www.bioinfo.utmb.edu](http://www.bioinfo.utmb.edu)

## MONTHLY SEMINAR SERIES

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**THE DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY,  
THE SEALY CENTER FOR MOLECULAR SCIENCE  
and THE SEALY CENTER FOR STRUCTURAL BIOLOGY  
The University of Texas Medical Branch  
Seminar Schedule - May 2006  
Held in Room 2.212 Basic Science Building (BSB Auditorium)  
04:00 p.m.**

**May 04, 2006**

**Lucie Parent, Ph.D.**

Professor

Department of Physiology

Membrane Protein Research Group

University of Montreal

Montreal, Quebec

**Seminar Title: "Calcium Homeostasis: Molecular Studies of a Renal TRPV Channel"**

**May 11, 2006**

**Guo-Min Li, Ph.D.**

Associate Professor

Graduate Center for Toxicology  
University of Kentucky College of Medicine  
Lexington, KY

**Seminar Title - "Dissection and reconstitution of human mismatch repair in vitro"**

**May 18, 2006**

**Michael Andreeff, M.D.,Ph.D.**

Chief, Section of Molecular Hematology Therapy  
and Director of Research in the Department of Blood and Marrow Transplantation  
Section of Molecular Hematology and Therapy  
The University of Texas M.D. Anderson Cancer Center

**Seminar Title: "Apoptosis Regulation in Leukemias: Therapeutic Opportunities"**

**May 25, 2006**

**Irit Sagi, Ph.D.**

Associate Professor  
Department of Structural Biology  
The Weizmann Institute of Science  
Israel

**Seminar Title: "Dynamic-Structure Function Studies of Matrix Metalloproteins:  
Application to Novel Drug Design"**

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## **The Research Coordinator's Corner**

**(5/2006)**

**A word about e-submission** – As I'm sure most of you planning e-submissions know by now, OSP is providing detailed training in the use of PureEdge to submit applications through grants.gov. This is a stop-gap measure; the permanent solution will be the much more user-friendly InfoEd system, which is supposed to be up and running no later than December 1. OSP has promised that there will be training on InfoEd in plenty of time (I'd hope no later than November) for applicants to become comfortable with the system before the first R01 applications must be submitted electronically; that's currently scheduled for February 1, though if the initial large-scale use of grants.gov for the June 1 R03/R21 applications goes as poorly as I expect, that might be pushed back another four months. Since OSP will now be providing adequate training in electronic submission via the temporary PureEdge approach, and only a fairly small minority of BMB faculty plan to submit grants electronically via that system, I will not devote significant additional space in my columns to discussing "how to do it" via PureEdge, though I will of course be available to assist applicants one-on-one. There are more than enough overall changes coming down the pike at NIH to keep the column straining at its limits! First,

however, I need to correct two pieces of misinformation from a previous column – one my mistake, the other due to a change in the e-submission process at grants.gov. The change is that "Effective May 10, 2006, Authorized Organizational Representatives [Toni and her designated assistants at OSP] and PIs no longer will need to complete the verification step to sign-off on an electronic grant application. However, it is still extremely important to check the assembled application in eRA Commons. The eRA Commons provides the only opportunity to see the grant application just as a reviewer will see it." (The window for such checking remains two business days after notification of the application's acceptance is posted to your eRA Commons account). The mistake deals with the slot on the SF424 form for the names and ERA Commons IDs of key personnel. It turns out that **only the PI's** name and Commons ID are checked against the NIH database before an application can be accepted; that's now spelled out in the application instructions at grants.gov, but was not explained in the earlier (December SBIR) version I had checked. I apologize for any inconvenience or angst caused by this error; it serves as an object lesson about the importance of **always** downloading (and checking) the latest set of forms and instructions before finalizing the application for submission, be it via paper or electronically! One other thing, which I just learned at the first training session: if you plan to submit a grant electronically as PI, it's not enough simply to register with the NIH Commons – you also must fill in the information requested there under the "profile" tab. When you submit electronically, the "error checking" routine compares some of the information in the application (notably your address) with the same information in the profile. If the two don't match (as is guaranteed if the profile is not properly completed), the application will be rejected at the NIH Commons stage. Finally, NIH has now developed a new, more user-friendly web portal for all information and links relating to electronic grant submission; the URL is <http://era.nih.gov/electronicreceipt/>.

**Important Changes to the Paper-based 398 Grant Application Kit** – [A recent Notice in the NIH Guide](#) described several changes being made to the paper version of the 398 package to align it with policies and procedures necessary for the changeover to electronic submission. I will discuss the changes here in varying degrees of detail, but there's additional information on all of them in the linked notice.

Replacing PI Signature on the Application with an Institutional Compliance Requirement – "Signing" an electronic submission is obviously problematical; NIH's solution is "replacing the signature of the Principal Investigator (PI) as a part of competing applications with an institutional compliance requirement where applicant organizations will capture and retain the PI signature as part of their institutional review/approval process." As part of this process, OSP will once again be changing their recently revised routing form for grant approvals, so be sure you always download the most recent version from the OSP web site before starting the approval process.

Change from % effort to person-months for measuring effort devoted to projects – this is fairly self-evident; UTMB and most medical centers use calendar month appointments, while subcontracts to regular academic institutions (e.g., Rice) are more likely to distinguish between summer months, when 100% effort can be devoted to a project, and academic months, when available effort is limited by teaching responsibilities.

Including Publications as Appendix Material – As described in *NIH Guide* Notice [NOT-OD-06-051](#) and clarified in Notice [NOT-OD-06-053](#), the process for including paper publications as appendix material has changed. For material already published, include only a publication list with links to the publicly available on-line journal articles, or the NIH PubMed Central (PMC)

submission identification numbers; do not include the entire article. For manuscripts accepted for publication but not yet published, or for published material for which no online journal link is available, the entire article should be submitted and may be stapled. For electronic submissions or eSNAP progress reports (see below), such electronically inaccessible material must be submitted as pdf files. The number of publications allowed in the Appendix remains the same (ordinarily 10 for an R01).

**Elimination of Biographical Sketch Subsection Limits** – "The entire biographical sketch continues to have a 4-page limit (including the table at the top of the first page); however, the 2-page subsection limit for sections A&B has been eliminated."

**Revised Requirements for Select Agent Research** – "A new section in the research plan (G. Select Agent Research) is only required when applicable. Additionally, the Resource Format Page instructions have been revised to request specific information on the biocontainment resources available when applicable."

One change they did **not** make is to enlarge the box for the Description (Abstract) on Form Page 2. In the paper 398 package, this box allows only 24 lines of type at the required Arial 11 font or equivalent. The electronic submission instructions allow 30 lines for the scientific abstract, and an additional "two or three sentences" for the lay-language statement of health relevance (called "narrative" in the electronic submission forms and instructions). I've called this discrepancy to the attention of the appropriate person in the office of extramural grants policy, but I'm not holding my breath that they'll change it for the remaining paper submission deadlines!

**New NRSA Application Kits** – the individual fellowship applications (F30-F33) will not be transitioning to electronic submission until August of 2007. In the meantime, the 416-1 application kit for these awards has been updated, as described in *NIH Guide* notice [NOT-OD-06-016](#). The new kit must be used for all applications beginning with the next (August 5) deadline.

**NIH Progress Reports may now be submitted electronically** – The procedure is called eSNAP, and is done via the NIH Commons. The latest eSNAP users guide is available from the NIH Electronic Research Administration website: [http://era.nih.gov/Docs/eSNAP\\_UG\\_v.2.8.1.1.pdf](http://era.nih.gov/Docs/eSNAP_UG_v.2.8.1.1.pdf). Contact our OSP postaward person ([Tracie Albritten](#), x69558) for more information. While use of eSNAP is not currently mandatory, I suspect that NIH will change that policy in the not-too-distant future.

**The Tech Corner** – Dr. Cheryl Watson asks: "I am still searching for a flexible and acceptable way to mark amended parts of an NIH grant resubmission in Word by putting a vertical line in the margin. Using a one-sided text box marks a whole paragraph, not just the part you want marked. Using Word's version of red-line means that ALL changes are marked - a virtual nightmare for any reviewer who really only wants to see the substantial changes responsive to their comments. Drawing a line in the margin results in this line flopping around all over the place every time you do a change. So how is this best done?"

I'm afraid I don't know of a good way to highlight only certain lines in a paragraph with a line in the right margin (my preferred location, to allow binding on the left). You can automatically put a line in the left margin of altered lines by using the "track changes" mode and changing the selections under the "track changes" tab of Tools|Options. You're supposed to be able to set it up

to put that line in the left margin, but at least on my screen, it doesn't work. An option that ties a line in the right margin to an entire paragraph (as done here) is to use the "borders" and shading tool, which is found under the "format" box; it's similar to but more flexible than using the "right-sided box" approach I mentioned in a previous column. Again, the line is attached to the paragraph as a whole, but this time it properly grows or shrinks as you add text at the bottom or remove it from the top. The advantage here is that you can decide to mark a paragraph only if there are **significant** changes, whereas using the track changes approach is completely automated, but there's no easy way to unmark certain lines. My thanks to several members of the CNet Online Community who responded with some suggestions in a discussion thread I started on this topic in the [CNet Microsoft Office Forum](#). If anyone knows of a way to get "track changes" marking to work in the right margin, or to remove the line from the margin in a particular place, please drop me a note, so I can pass the suggestion on in the next column -- with suitable thanks and acclaim, of course!

That's it for this month – I look to be **very** busy for both the June and July deadlines, especially given several electronic submissions. Please remember to allow extra time for electronic submission if you're planning an R21 or R03 application (OSP says it "will no longer guarantee on-time submission" of grants received more than three working days before the electronic submission deadline, and they'd like them earlier than that if possible). And please, don't forget to send in your technical grant-preparation questions for next month's Tech Corner!  
-- *Dave Konkel* x24074; E-mail: [dkonkel@utmb.edu](mailto:dkonkel@utmb.edu) (copyright 2006).

## GRANTS ALERT

**NIAMS Small Grant Program For New Investigators (R03)** – The Arthritis and Musculoskeletal Institute's program does not use the standard "parental" R03 mechanism, or deadlines. These grants are for a maximum of \$50,000 in direct costs annually for up to three years, and 15- 20 such awards are anticipated for each fiscal year. For more information see <http://grants1.nih.gov/grants/guide/pa-files/PAR-06-383.html> ; applications must be submitted electronically with special deadlines of June, October, and February 23.