

# Biochemistry and Molecular Biology Notes

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## Biochemistry Faculty Position in Genomics

Indiana University School of Medicine is establishing a Center for Medical Genomics that will provide state-of-the-art microarray facilities. We are seeking an outstanding candidate for a new Assistant Professor level position in the Department of Biochemistry and Molecular Biology that focuses upon the design and use of microarray technologies. Applicants should possess a Ph.D., M.D., or M.D./Ph.D. degree and have relevant postdoctoral experience in making and using microarrays. This individual will help build the Center for Medical Genomics into a major collaborative resource that can interact with many interesting projects, and develop new projects in his/her area of expertise. Successful candidates would also participate in the teaching of medical and graduate students. A competitive startup package is available. Please send CV, description of research interests, and the names of three references to Dr. Howard Edenberg, Professor, Department of Biochemistry and Molecular Biology, Indiana University School of Medicine, 635 Barnhill Dr. MS4063, Indianapolis, IN 46202-5122. Phone 317 274-2353; email [edenberg@iupui.edu](mailto:edenberg@iupui.edu). *Indiana University is an Equal Opportunity/Affirmative Action Employer, M/F/D.*

## Molecular Biology Workshop June 5-22

The Year 2000 Molecular Workshop under the "Methods in Molecular Biology and Pathology" will be held June 5 - 22, all day Monday, through Friday. This course is a combination of lectures and labs and covers basic molecular biology techniques, such as DNA and RNA isolation, molecular cloning, Southern and Northern hybridizations, library screening, DNA sequencing, etc.

It is a 3-credit graduate Biology course. Students are to register for the Summer Section I, 2000. There are also spaces for faculty and staff members. Persons who are interested in taking this course should contact Dr. Lee by March 31. C. H. Lee, Ph.D. Department of Pathology and Laboratory Medicine, IUSM. Phone: 274-2596, Fax: 278-0643, E-mail [chlee@iupui.edu](mailto:chlee@iupui.edu).

## Check Out New Autoclave

The autoclave/sterilizer located in MS 4034 Just outside the BBF is reprogrammed with new software to more closely match our needs. The manufacturer, Getinge/Castle, wants to make this equipment work as well as possible for our research needs.

It is important for Biochem lab personnel to start using the new autoclave since the one in old Med Sci will be dismantled and removed before Fall 2000 as part of the building renovation. It would be best to plan ahead and have a good working knowledge of the new equipment.

The department needs your feedback on how well the new equipment works. Should problems occur, we need to pass the information to Getinge/Castle so they are aware of the problems and can take steps to correct them. Without your input, we won't know if or when there are problems. Please contact the Biochem office about autoclave problems.

## February Seminars

### Biochemistry Seminars

2/3 **Dr. Rebecca Chan**, Postdoctoral Fellow, Biochemistry & Molecular Biology, IUSM; “*The role of Shp2 in hematopoiesis*”. MS A506/A518, 12:00 Noon.

2/7 **Dr. Adrienne D. Cox**, Assistant Professor, Radiation Oncology and Pharmacology, University of North Carolina, Chapel Hill, NC; “*R-Ras signaling in transformation and cell death*”.

2/14 **Dr. Joseph Tsien**, Assistant Professor of Molecular Biology, Princeton University, Princeton, NJ; “*Genetic enhancement of learning and memory in mammals*”.

2/17 **Dr. Krishna Vattem**, Postdoctoral Fellow, Biochemistry & Molecular Biology, IUSM; “*Regulation of dsRNA-dependant protein kinase, PKR, by negative-acting sequences located in the amino-terminus*”. MS A506/A518, 12:00 Noon.

2/21 **Dr. David Franklin**, Assistant Professor of Biological Sciences, Purdue University, West Lafayette, IN; “*Tissue specific tumor suppression and multiple endocrine neoplasia in CDK1 knockout mice*”.

2/28 **Dr. Craig E. Cameron**, Assistant Professor, Biochemistry & Molecular Biology, Pennsylvania State University, University Park, PA; “*Insight into the mechanism of action of ribavirin obtained from kinetic analysis of the polymerases from poliovirus and hepatitis C virus*”.

### Biochemistry Student Seminars

2/9 **Zhong Wang**

2/16 **Heather Breen**

2/23 **Jing Zhao**

### Center for Diabetes Research Seminars

2/8 **Keith March**, *Therapeutic modulation and endogenous function of the pericardial space: Approaches to restenosis and angiogenesis.*

2/22 **Helmut Steinberg**, *Insulin resistance, free fatty acids and vascular function.*

### Other Seminars of Interest

2/3 *Neuroinflammation and Neurodegeneration: the NF- $\kappa$ B Link.* **Yansheng Du, Ph.D.**, Visiting Scientist Neuroscience Discovery Research, Eli Lilly and Company; Indianapolis. Institute of Psychiatric Research 115, 12:00 Noon.

2/4 *Hyperglycemia, Endothelial Cells and Protein Kinase C Interact to Suppress Nitric Oxide Production.* **H. Glenn Bohlen, Ph.D.**, Dept. of Physiology/Biophysics, IUSM. Medical Science 326, 12:00 Noon.

**2/8** *Obese Animals as Models of Human Disease Syndromes.* **Richard Peterson, Ph.D.**, Dept. of Anatomy and Cell Biology, MS311A/B, 12:00 Noon.

**2/11** *Fatty Acid-Induced Regulation of Endothelial Nitric Oxide Production.* **Michael Hart, M.D.**, Dept. of Medicine, Div. of Pulmonary Medicine, IUSM. Medical Science 326, 12:00 Noon.

**2/14** *Cell Cycle Disruption and Induction of DNA Methylation in Breast Cancer.* **Tim Huang, Ph.D.**, Director of Cytogenetics, Ellis Fischel Cancer Center, University of Missouri Health Sciences Center; Columbia, MO. Cancer Research Institute Auditorium 101. 4:00p.m.

**2/16** *Development of Anti-Angiogenic Agents for Cancer.* **George Sledge, M.D.**, Ballvé Lantero Professor of Oncology, IUSM. Cancer Research Institute Auditorium 101. 4:00p.m.

**2/17** *Molecular Mechanisms of Autoimmunity to the Human Thyrotropin Receptor.* **Gattadahalli S. Seetharamaiah, Ph.D.**, Dept. Of Medicine, IUSM. Medical Science 326, 4:00p.m.

**2/23** *How do I use that BLASTed Program?* A short introduction to using NCBI's Blast Tool. **Jeanette McClintick**, Graduate Student, Dept. of Medical/Molecular Genetics, IUSM. MS 326. 12:00 Noon.

## **New Faces in Biochemistry**

- **Dr. Jeffrey Elmendorf** is a new Assistant Professor in Physiology and Biophysics and in Biochemistry & Molecular Biology. He was recruited by the Center for Diabetes Research, which is headed by Peter Roach of Biochemistry. Dr. Elmendorf's laboratory is located in MS 382.
- **Suzanne Haskins** is a work-study student in Joyce Hurley's lab.
- **Alenda Nelson** is a Lab Assistant in Anna DePaoli-Roach's lab.

## **New Graduate Faculty**

The IU Board of Trustees approved recommendations for the following individuals to join the Graduate Faculty: Donald Durden and **Suk-Hee-Lee** – full status; **John Hawes** – associate status. Congratulations to all!

## **Dr. Quilliam Receives ACS Grant**

Lawrence Quilliam received a 3 -year award from the American Society for his project, "Role of M-Ras in cellular transformation". Ras proteins are frequently mutated in human cancers and contribute to aberrant cell growth and transformation. Dr. Quilliam's group recently identified a Ras related protein that is referred to as M-Ras or R-Ras3 due to its initial isolation from a muscle cell library and closest homology to R-Ras (a protein involved in apoptosis and cell attachment). They have found M-Ras protein to be expressed in many tissues and cell lines and to mimic several of the biological properties

of Ras. For example, it induces morphological transformation of NIH 3T3 fibroblasts and inhibits the differentiation of cultured muscle cells.

The ACS grant is to support studies to 1) determine the upstream regulatory events leading to M-Ras activation. This will enable them to identify the physiological hormones/growth factors that utilize M-Ras; 2) to address what unique downstream signaling pathways are regulated by M-Ras and might be targeted to block its action(s); 3) to address the involvement of M-Ras in cell motility and invasion; and 4) to screen human tumor sample for activating M-Ras mutations.