

# The Edge

Volume 2, Issue 3

Spring 2008



## Science Without Borders

Dr. Kathy Marrs (PI), of the Purdue School of Science,

and Dr. Simon Rhodes (co-PI), Associate Dean for Graduate Studies at the Indiana University School of Medicine (IUSM) were recently awarded a grant through the National Science Foundation (NSF) to

fund the Graduate K-12 Urban Educators Program at Indiana University-Purdue University Indianapolis (IUPUI), an outreach program designed to enhance the science curriculum of local Indianapolis Public Schools (IPS).



The GK-12 Urban Educators Program will support graduate students in both the Schools of Science and Medicine in their second year of graduate school and beyond. Students will spend approximately 10 hours per week assisting IPS science teachers in the development of lesson plans that are relevant to real life science questions. The three partner IPS schools are Crispus Attucks Medical Magnet School (Middle School-High School), George Washington Community School (Middle School-High School), and Northwest High School.

The program acts as an extension of the existing partnership between both IU Schools and Purdue Schools on the IUPUI campus and IPS's Crispus Attucks Medical Magnet High School.

## Alumni Spotlight

### Patrick Sheets, Ph.D.

Patrick Sheets completed his Ph.D. in Pharmacology through the Department of Pharmacology and Toxicology the IUSM in December 2007 under the mentorship of Dr. Theodore Cummins. Patrick is headed to the windy city to join the lab of Dr. Gordon M. Shepherd Jr. in the Feinberg School of Medicine at Northwestern University in downtown Chicago as a postdoctoral fellow. Patrick will be investigating functional integration of neocortical neurons of the brain which are involved in motor control, executive functions,

and memory. His ultimate goal is to head a biomedical research laboratory that examines the etiology of neurodegenerative disease, pain, as well as human behavior and memory.

Patrick was selected to represent the graduate student body on several IBMG program planning committees as well as acted as the chair of the IUSM Graduate Student Organization for several years. We thank Patrick for all of his insight and input and we wish him all the best!



## In this Issue

Science Without Borders  
page 1

Alumni Spotlight  
page 1

Resources for Post-Docs  
page 2

Faculty Spotlight  
page 2

IUSM Post-Doc Office Opens  
page 3

Funding Updates  
page 3

Where are they now?

## Resources for Post-docs

In *The Scientist's 2008* survey, IUPUI ranked in the top 30 Best Places to Work for Post-docs.

***From Mind to Market: An Overview of Starting, Protecting, and Funding*** scheduled for April 22<sup>nd</sup> from 3:00 – 5:30 p.m., Emerson Hall, Room 304.



**National Postdoctoral Association (NPA)** provides free affiliate membership to any individual associated with IUSM. As an affiliate member, you receive a subscription to NPA's quarterly newsletter (Postdocket) and to its periodic e-mail Alerts (E-Alerts) and access to all members-only content on the NPA website. For more information and to become an affiliate member, visit [www.nationalpostdoc.org](http://www.nationalpostdoc.org).

***Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty, 2nd edition\**** The **second edition** of this popular collection of practical advice from seasoned biomedical investigators has been updated with material from the 2005 BWF-HHMI course in scientific

management. The book covers a range of issues of concern to beginning academic scientists—obtaining a job, time management, mentoring students, getting funding, publishing, and more. The second edition also contains three new chapters on laboratory leadership, project management, and teaching and course design.

***Training Scientists to Make the Right Moves: A Practical Guide to Developing Programs in Scientific Management\****

This companion publication to *Making the Right Moves* is for anyone interested in organizing scientific management training, whether it's a lunchtime seminar or a multi-day course. It moves step by step through the activities that result in a successful training event. Topics include selecting the venue, finding speakers, handling logistics, and conducting a meaningful evaluation. The guide's online resources include sample letters, checklists, case studies, and other materials.

\* Both books are available for Post-docs in the Office of Postdoctoral Affairs located in the Van Nuys Medical Science Building, Room 205.

### 10 Ph.D. Programs

Anatomy & Cell Biology

Biochemistry & Molecular Biology

Cellular & Integrative Physiology

Medical & Molecular Genetics

Medical Biophysics & Biomolecular Imaging

Medical Neuroscience

Microbiology & Immunology

Pathology & Laboratory Medicine

Pharmacology

Toxicology

## Faculty Spotlight

### Dr. Clark Wells

Dr. Clark Wells received his Ph.D. from the University of Texas Southwestern, Department of Pharmacology under the mentorship of Dr. Paul C. Sternweis. He then went on to do his Post Doctoral Fellowship with Dr. Tony Pawson at the Samuel Lunenfeld Research Institute at Mount Sinai Hospital in Toronto Ontario. Tony Pawson is an internationally recognized researcher studying the mechanisms that underlie intracellular signal transduction. The Pawson lab has made major contributions to our understanding of the modular protein domains that mediate protein-protein interactions that are central to signaling events in cells.

Dr. Wells joined IUSM [Department of Biochemistry and Molecular Biology](#) as an Assistant Professor in September of 2006. His lab is focused on understanding the mechanisms that control the loss of inter-cellular cohesion in metastatic breast cancer.

Their particular interest is in the role of the adaptor protein Amot which can induce proteins to translocate from intercellular junctions to the cytosol which in some cases is sufficient to set off a cascade of changes within the cell that eventually produces the morphological shift to a highly migratory mesenchymal cell. The lab's eventual goal is to develop strategies for blocking the de-regulation of Amot and the signaling that it scaffolds in breast tumors to prevent the initialization of tumor spreading which underlies lethality.



For more details on Dr. Clark Wells and his research, visit his [website](#).

# IUSM Post-Doc Office Open for Business!

Postdoctoral training is a win-win for the researcher and the institution; it advances both the careers of postdoctoral scholars and the scientific research of the faculty.

Recognizing the important contributions of postdoctoral scholars, IUSM Graduate Division has created an Office of Postdoctoral Affairs to address the unique needs of this population. Spearheaded by the newly appointed Director of the Office of Postdoctoral Affairs, [Jennifer Williams](#), the office will be a valuable resource for prospective post-docs, current post-docs, and faculty. Currently in development is a comprehensive website to address common questions of prospective post-docs, provide resources for current post-docs, and connect

post-docs to the extensive services available within the institution.

The office will also be providing tailored professional development programs including the upcoming *From Mind to Market: An Overview of Starting, Protecting, and Funding* scheduled for April 22<sup>nd</sup> from 3:00 – 5:30 p.m. Additionally, IUSM is a sustaining member of the National Postdoctoral Association (NPA) which provides free affiliate membership to any individual associated with the university. As an affiliate member, you receive a subscription to NPA's quarterly newsletter (Postdocket) and to its periodic e-mail Alerts and access to all members-only content on the NPA website: [www.nationalpostdoc.org](http://www.nationalpostdoc.org).

## 10 New Signature Centers Funded

Last year the IUPUI Executive Vice Chancellor Dr. Uday Sukhatme launched his Signature Center Initiative which produced 19 interdisciplinary research centers. The campus has invested \$7.5 million in seed money to initiate the centers with the intent that they will become self-sufficient in three to five years. Some centers have already seen major federal and corporate funding successes.

Within the last month 10 new Signature Centers (of 54 proposals) have been funded. The Vascular and Cardiac Center for Adult Stem Cell Therapy, headed by Dr. Keith March, MD, PhD, Cryptic Masons Professor of Vascular Biology and Medicine, professor of

medicine, faculty of Cellular & Integrative Physiology and director of the Indiana Center for Vascular Biology and Medicine, is 1 of the 10 new centers. This center is a unique collaborative effort between both basic and clinical scientists which will allow the rapid translation of advances in adult stem cell research to clinical trials of new therapies aimed at repairing and enhancing the function of the cardiovascular system and tissues.

For a list of research centers on the IUPUI Campus (not inclusive of the 10 new Signatures Centers) visit: [www.iupui.edu/~solctr/research](http://www.iupui.edu/~solctr/research).

## Calendar of Events

March 3–28	Summer course priority registration
April 15	Deadline for IBMG candidates to respond to offer of doctoral fellowship beginning August 2008
April 22	<i>From Mind to Market: An Overview of Starting, Protecting, and Funding</i> 3:00 – 5:30 p.m., Emerson Hall, Room 304
May 2	IBMG <a href="#">Program Selection Form</a> Due



Research. Discover. Done.

# Message from the Director

Spring is here and it is decision time. Our first year IBMG students are in the thick of spring courses and their third lab rotation, with the decision of choosing their research mentor and lab right around the corner. And prospective IBMG students are weighing their graduate school options to determine which school is the right fit for them. These decisions require a lot of thought, research, and discussion.

For current students, to find the perfect faculty mentor you must know your self, your learning style, and your needs as a student. You must find a mentor that will provide you what you need both intellectually and personally and the research must drive your passion, get you up in the morning and provide you motivation to spend late evenings in the lab. Now would be an excellent time to revisit Dr. Simon Rhodes' "[Choosing a Research Mentor and Picking an Advisory Committee](#)" presentation from the August orientation and consider all these factors and more.

Prospective students should know that the IBMG Admissions Committee selected you out of 338 applications because you have what it takes to have a successful graduate career at IUSM that will allow you to fully realize your potential. When making the decision on which offer to accept consider some of the advantages of the IBMG program—students have their choice of three rotations in hundreds of top-rated labs performing cutting-edge research in state-of-the art research facilities. Also consider that IUPUI is the major [research](#) campus in the state and the campus has many hospitals and [research centers](#) offering students opportunities to do basic research, biomedical research of all kinds, and translational projects.

This is an exciting time to be at IUSM: the faculty research programs, the collaborative spirit amongst our faculty and students, the research facilities, and the [advantages of Indianapolis](#) make this a great place to live and do science. We hope that you accept our offer and join our graduate student and research community this fall as we know you will receive a superior education, and be a part of cutting-edge research and discoveries at IUSM.



*Happy Decision Making!*

*Monica Henry*

Monica Henry, Program Director, IBMG Program

