

Program Executive Committee:

- Johannes Hell
- Dawn Quelle
- Kevin Rice
- Andrew Russo
- David Wiemer



Dawn Quelle, Ph.D.
Associate Professor
Director, Graduate Admissions
Pharmacology



Kevin Rice, Ph.D.
Professor and Division Head
Medicinal & Natural Products Chemistry



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Professor, Physiology and Biophysics
Director, Biosciences Program

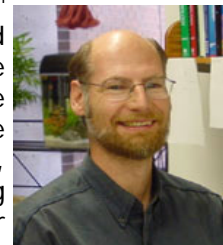


David Wiemer, Ph.D.
Professor and Chair
Chemistry

Competitive Renewal of our Training Grant

Dear Colleagues and Trainees:

I am deeply grateful for all the help I received on the May 10th submission of the competitive renewal of our TG. First and foremost, I want to thank Lisa Ringen, Linda Buckner and Sue Birely, the Pharmacology Departmental Administrator and office secretaries, who took responsibility for organization of the tables. I also want to extend my appreciation to the trainers, administrators and support staff from the six participating departments and six interdisciplinary graduate programs for providing the necessary information in a timely manner.



I am indebted to Dr. Kevin Rice, co-director of this TG, who worked closely with me on this proposal, meeting weekly to discuss and define the goals of the next funding period. Dr. Rice updated and wrote critical parts of the section on student recruitment in general and specifically recruitment of underrepresented minorities. The other members of the Executive Committee provided additional help and thoughts and provided insight and assistance in defining the pool of trainers. I also want to thank Dr. Donna Hammond, Interim Head of Pharmacology, for generously sharing her expertise with training grants and for buttressing and refining key arguments. She reviewed each draft and helped to highlight the strengths of the program. Last, but certainly not least, I want to thank Dean Keller of the Graduate College. He has committed an additional slot for each of the next five years to the training grant, which will provide stipend and tuition support for students from underrepresented racial or ethnic groups.

Best Regards,
Johannes W. Hell, Ph.D.

First Annual Mini-Symposium of the TG

The 2006 mini-symposium was focused on "Drug Development for Pain Management." It was held in conjunction with the annual Midwest Pain Interest Group (Big PIG) Meeting, which was hosted this year by the UI on May 18th and 19th. This symposium featured three talks. Dr. Michael Jarvis, Project Leader, Neuroscience Discovery, Abbott Laboratories, Chicago, introduced the P2X7 receptor and the extracellular adenosine kinase as two potential drug targets in pain treatment. Especially elucidating was his discussion of unacceptable side effects of adenosine kinase blockers (cerebral microhemorrhages in rodents) despite their efficacy as analgesic drugs. The P2X7 antagonist A317491 was introduced as a potent analgesic drug although its oral bioavailability is absent.



Dr. J. Michael Walker, Director, Gill Center for Biomolecular Science and Program in Neuroscience, Indiana University, presented his elegant work on endocannabinoids. He discovered a number of endogenous arachidonyl derivatives, which have the potential to act as endogenous ligands for the cannabinoid receptors. He discussed whether cyclooxygenase (COX) inhibitors act by inhibiting metabolism of these arachidonyl derivatives, which in turn could exert analgesic effects. This notion is supported by the finding that cannabinoid antagonists counteract the effect of COX inhibitors.



Dr. Thomas Prisinzano, Assistant Professor of Medicinal and Natural Products Chemistry at UI, talked about his work on a new class of opioids. Salvinorin A and its derivative Herkinorin are very potent analgesics working on opioid receptors. Initial results indicate that contrary to morphine and other classic opioids, these new opioids do not lead to tolerance, a huge problem in pain management with classic opioids.



The mini-symposium was attended by 60 faculty, students, and postdoctoral fellows from seven Midwest Universities. Nearly all trainees in our Program took advantage of the opportunity to present their work in poster format. The feedback I received from several students was very positive and indicated that most poster presenters obtained insightful feedback on their projects. A special thanks to Dr. Hammond for her assistance in ensuring continuity between the Big PIG (Pain Interest Group) meeting and our TG symposium. We are aiming to hold next year's meeting in conjunction with the UI Carver College of Medicine Research Week. I would appreciate suggestions for potential themes and speakers for the 2007 half day symposium.

Current Trainers

Anatomy & Cell Biology

Botond Banfi
Robert Cornell
John Engelhardt
Chuck Yeaman

Anesthesia

Tim Brennan
Donna Hammond
Toshi Kitamoto

Biochemistry

Kris DeMali
Ernesto Fuentes
Shahram Khademi
S. Ramaswamy

Chemistry

Sonya Franklin
Greg Friestad
Lei Geng
Amnon Kohen
Dan Quinn
David Wiemer

Internal Medicine

Mark Anderson
John Colgan
Don Heistad
Ray Hohl
Michael Welsh
Mary Wilson

Microbiology

Gail Bishop

Medicinal & Natural Products Chemistry

Jonathan Doorn
Michael Duffel
Robert Kerns
Horacio Olivo
Tom Prisinzano
Kevin Rice

Pharmacology

Rory Fisher
Johannes Hell
Dawn Quelle
David Sheff
Stefan Strack
Yuriy Usachev

Physiology & Biophysics

Sarah England
Michael Henry
Scott Moye-Rowley
Andy Russo
Deborah Segaloff

Physical Therapy & Rehabilitation Science

Kathleen Sluka

Welcome to our New Trainers

Our invitation to faculty members to serve as new trainers or continue as a trainer was met with a stronger response than anticipated. The Executive Committee had to decide on how to limit the number of trainers to match potential number of TG slots with number of trainers, which should be at most a 1:10 ratio. We received nearly 70 applications for consideration. Given that we will at most obtain 8 TG slots (at most 4 openings per year), the number of trainers had to be reduced to 42 to more closely match the 1:10 ratio. I would like to welcome the following new trainers: Dr. Mark Anderson, Internal Medicine; Dr. Botond Banfi, Anatomy & Cell Biology; Dr. Gail Bishop, Microbiology; Dr. John Colgan, Internal Medicine; Dr. Robert Cornell, Anatomy & Cell Biology; Dr. Kris DeMali, Biochemistry; Dr. Jonathan Doorn, Medicinal & Natural Products Chemistry; Dr. Greg Friestad, Chemistry; Dr. Ernesto Fuentes, Biochemistry; Dr. Shahram Khademi, Biochemistry; Dr. Toshi Kitamoto, Anesthesia; Dr. David Sheff, Pharmacology; Dr. Yuriy Usachev, Pharmacology; Dr. Mary Wilson, Internal Medicine and Dr. Charles Yeaman, Anatomy & Cell Biology.

Recent Accomplishments of our Trainees



Amy Halt, a graduate student in the Department of Pharmacology, received an individual, Predoctoral National Research Service Award from the National Institutes of Health entitled, "The Roles of NMDA CaMKII Binding Domains."

Mentor: Johannes Hell



Garrett Rettig, a graduate student in the Medicinal & Natural Products Chemistry Department, received an individual, Predoctoral Scholarship from the American Foundation of Pharmaceutical Educators (AFPE).

Mentor: Kevin Rice

We're on the Web!

<http://pharmacy.uiowa.edu/mnpcphar/pages/pharmacosciences.htm>