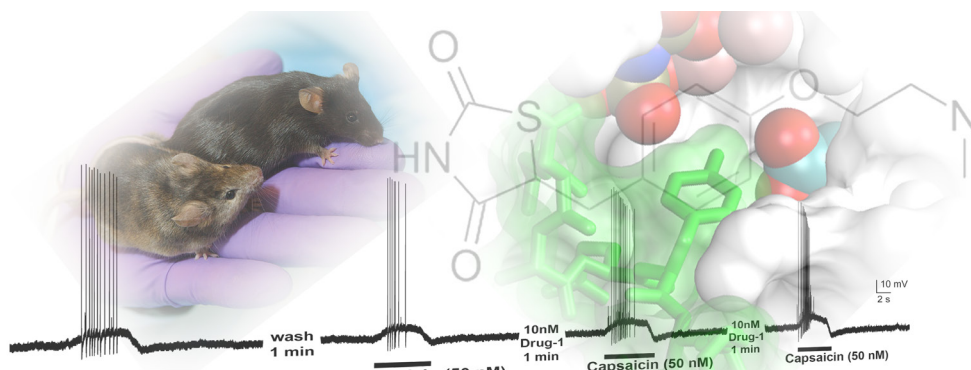


# Iowa Pharmacology NEWS

FOR ALUMNI AND FRIENDS OF THE UNIVERSITY OF IOWA DEPARTMENT OF PHARMACOLOGY

VOLUME 6 ISSUE 1

SPRING 2018



## Grobe Receives Established Investigator Award from American Heart Association



Associate Professor **Justin L. Grobe, Ph.D.** was selected in December 2017 to receive an Established Investigator Award from the American Heart Association. As described by the AHA, this career development award “is designed to support mid-career investigators with unusual promise and established records of accomplishments; candidates have a demonstrated commitment to cardiovascular or cerebrovascular science as indicated by prior publication history and scientific accomplishments. A candidate’s career is expected to be in a rapid growth phase.” Dr. Grobe’s career is indeed on a steep upward trajectory. Since his appointment in Pharmacology in 2012 as an Assistant Professor, he has authored close to forty papers and has won support for his research from the American Diabetes Association, AHA and NIH.

His research has already been recognized by awards from the AHA and American Physiological Society. Grobe is very dedicated to the training of young scientists, both through classroom teaching and mentoring of students. He has taken postdoctoral, graduate, undergraduate and even high school students into his lab.

The AHA Established Investigator Award provides five years of salary and laboratory support for the Grobe lab and will permit their acquisition and deployment of new tools to accelerate new directions of inquiry. We know Justin will take maximal advantage of this well-deserved award! Please join us in congratulating Justin!

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# Iowa Pharmacology A HEARTY WELCOME

## Pharmacology welcomes two new faculty

Pharmacology is pleased to announce that two outstanding young scientists will have joined our faculty as Assistant Professors as of this summer. **Drs. Catherine Marcinkiewicz, Ph.D.** (appointed March 2018) and **Deniz Atasoy, Ph.D.** (appointment anticipated August 2018) are both accomplished neuroscientists who will augment the neuroscience strength area of the Department. We present some background on Catherine and Deniz by way of introduction!

### *Dr. Catherine Marcinkiewicz, Ph.D.*



Dr. Marcinkiewicz received a B.S. from Johns Hopkins University and an M.S. from the University of Florida, with both degrees in Biomedical Engineering. She received her Ph.D. in Neuroscience in 2010 from the University of Florida, where she performed behavioral and cognitive neuroscience research under the mentorship of Dr. Darragh P. Devine, Ph.D. She has since pursued postdoctoral studies in the laboratory of Dr. Thomas L. Kash, Ph.D. at the University of North Carolina at Chapel Hill.

Dr. Marcinkiewicz's research is focused on the role of serotonin in complex brain disorders such as alcohol dependence, depression, and Alzheimer's disease. Her lab will use a variety of intersectional tools for targeting, manipulating and monitoring the activity of discrete serotonin neural circuits in order to gain insight into how these circuits are disrupted in psychiatric disorders. Her lab will also investigate the role of enteric serotonin in brain disorders such as autism and generalized anxiety disorder. The ultimate goal of her work is to identify new therapeutic targets for these often intractable conditions.

Dr. Marcinkiewicz has published extensively in high impact journals that include *Neuron*, *Neuropsychopharmacology*, *Nature Neuroscience* and *Nature*. She is currently funded by a K99 NIH Pathway to Independence Award from the National Institute on Alcohol Abuse and Alcoholism with her project entitled: "The Role of Serotonin Signaling in the Nucleus Accumbens in Excessive Alcohol Drinking."

Catherine was born in Jackson, New Jersey, but relates that her family lived several places before settling in Tampa. Neuroscience has been a lifelong passion of hers, and she has special interest in the neurobiology of substance abuse. Her hobbies include hiking, kayaking, traveling and photographing wildlife, one of her favorite subjects being Florida horseshoe crabs.

### *Dr. Deniz Atasoy, Ph.D.*



Dr. Atasoy received his B.S. in Molecular Biology and Genetics from Bilkent University in Ankara, Turkey, and his Ph.D. in 2007 from the University of Texas Southwestern Medical Center in Dallas, Texas, where he worked under the direction of Profs. Thomas Südhof, M.D.

and Ege Kavalali, Ph.D. He next did postdoctoral research in the laboratory of Dr. Scott Sternson at the Howard Hughes Medical Institute-Janelia Research Campus in Ashburn, Virginia, before being appointed in 2014 to his most recent position of Assistant Professor in the Department of Physiology in the Istanbul Medipol University School of Medicine in Istanbul, Turkey.

Dr. Atasoy's research focuses on the neural circuits that regulate feeding behavior and metabolism in the context of disease models of obesity and eating disorders. His research employs a variety of cutting edge approaches including optogenetic and pharmacogenetic tools, electrophysiology, imaging and behavioral analysis. Such techniques are used to map and manipulate neuronal networks, to unravel the synaptic and circuit mechanisms of body weight regulation in health and disease. Dr. Atasoy has published extensively in prestigious journals including *Cell*, *Cell Metabolism*, *Journal of Neuroscience*, *Nature*, *Nature Neuroscience*, *Neuron*, *Neuroscience*, *PNAS USA* and *Science*. He was the recipient in 2014 of the Turkish Academy of Sciences (TUBA-GEBIP) Young Scientist Award.

Deniz was born in Trabzon in the Black Sea region of Turkey and grew up in Istanbul. For recreation he enjoys hiking, table tennis, and soccer.

Please join us in welcoming Catherine and Deniz to Iowa City, and wishing them the best of luck in all their endeavors!

# Iowa Pharmacology OUR CONGRATULATIONS

## 2017 Amanda Hope Skolnick Undergraduate Award



The *Amanda Hope Skolnick Undergraduate Award* is given annually to honor the memory of **Amanda Skolnick** (pictured at lower right), who worked as a Laboratory Assistant in the Department of Pharmacology while an undergraduate at Iowa. In her junior year of study, Amanda's life tragically ended after being struck by a motor vehicle in Iowa City. The Skolnick family made a generous donation to the Department of Pharmacology to establish a tuition scholarship award in memory of Amanda.

Our 2017 award recipient was **Ms. Emily Anderson**. Emily has been a Laboratory Assistant in the lab of **Dr. Yuriy Usachev** since the spring of 2015. She graduated in May with a double B.S. major in Biology and Human Physiology. Emily has provided us a short accounting of her time at Iowa and future goals:



*The Skolnick Award is presented annually to a Department of Pharmacology undergraduate employee who best exemplifies the dedication and spirit that Amanda demonstrated daily in her work as a Laboratory Assistant.*

**Extracurricular and off-campus activities:** I volunteer at the hospital, mentor for Women in Science and Engineering (WiSE), and was elected to be on the executive board for Student United Way. In my free time, I enjoy running, watching documentaries, fueling my coffee addiction, and playing with my three dogs: Nikko, Alaska, and Worry-Boy.

**Career goals/graduate study:** After college, I plan to attend medical school and strive to go into either cardiothoracic or vascular surgery. In addition to this, I would also like to continue conducting specialty-related research.

**What I love about the University of Iowa:** I love the endless opportunities that Iowa provides, whether it be academic or extracurricular. Iowa allows you to make your academic career your own, with amazing mentors helping you along the way.

**Emily says:** When life gets you down, never forget there is another door waiting for you to open it. Keep your head up, and don't let anyone get in your way of achieving your goals!

### SAVE THE DATE!

The family of **Harold Williamson**, **Professor Emeritus Pharmacology**, is having a **party** to celebrate his **88th birthday**! Please join us in wishing **Harry** a **Happy Birthday**!

Place: **Iowa City**  
Venue: **UI Levitt Center**  
Time: **Noon to 4 PM**  
Date: **August 11, 2018**

Please RVSP by August 1 to [juliewilliamsonpritchard@gmail.com](mailto:juliewilliamsonpritchard@gmail.com)



Harold Williamson among the Pharmacology faculty of 1976.



Harold Williamson and son Charlie relaxing at the Royal Opera House in London.



# Iowa Pharmacology OUR CONGRATULATIONS

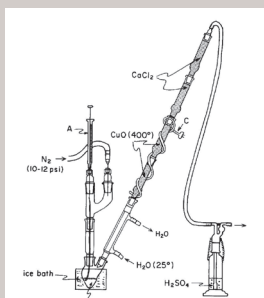
## Mario Ascoli set to retire



**Dr. Mario Ascoli**, Professor of Pharmacology, will be retiring as of July after 28 years of service to the Department. A native of Guatemala, Mario received a B.S. degree in Biochemistry from San Carlos University, Guatemala and a Ph.D. degree in 1975 from Vanderbilt University in Nashville, where he studied under Dr. J. David Puett. Following postdoctoral training at M.D. Anderson Hospital and Tumor Institute at The University of Texas, Houston, he moved back to Vanderbilt in 1977, where he rose through the ranks from Research Instructor to Associate Professor. Starting in 1985, he worked as a Scientist then Senior Scientist at the Population Council Center for Biomedical Research in New York City. Recruited as a Carver Senior Scientist, he joined the University of Iowa as a Professor in 1990.

We congratulate Mario on his distinguished career and thank him for his many contributions to the Department and University. Join us in wishing him all the best in the next phase of his life in Colorado!

Dr. Ascoli's long-standing research interest is directed upon the hormone receptor systems that regulate reproduction, particularly the lutropin/choriogonadotropin receptor functioning in the testis and ovary. He is well known in the field having authored over 150 research articles, reviews and textbook chapters on the subject. The MA-10 testicular Leydig tumor cell line that he developed became an essential model for studies of steroidogenesis. Dr. Ascoli has throughout his career made significant contributions through teaching and mentoring of young scientists. At the UI he has taught in numerous Pharmacology courses for graduate and professional students, directed multiple courses, and was a small group facilitator in the case-based learning medical course. He mentored many students including over forty postdoctoral trainees. He until recently was Research Director of the Women's Reproductive Health Research training grant for fellows and junior faculty in Obstetrics and Gynecology. Outside the UI he served fourteen years as director of the Frontiers in Reproduction summer course at the Marine Biological Labs, Woods Hole, Massachusetts. In recognition of his teaching contributions, he received a CCOM 2014 Excellence in Medical Education Award. Mario has been a valued colleague to current and past members of the Department, always willing to share his considerable knowledge, insight and experience. He is an avid traveler, enjoys hiking, time with his family, and the occasional craft beer.



Apparatus used for the reductive <sup>3</sup>H-methylation of gonadotropins. From Ascoli and Puett (1974) *Biochimica et Biophysica Acta* 371(1):203.

## Sigmund is Chair-Elect of AHA Council on Hypertension



**Curt D. Sigmund, Ph.D.**, the Roy J. Carver Chair in Hypertension Research and Professor and DEO of the Department of Pharmacology, was chosen by members of the AHA Council on Hypertension (COH) as the new Chair-Elect. Dr. Sigmund is to serve as Chair-Elect for a two-year term, while he also serves as Chair of Programming for the COH *Hypertension Scientific Sessions*. In 2020, he will take over as COH Chair for a two-year term. Sigmund has achieved international recognition as a hypertension researcher and has a history of distinguished service to the cardiovascular/hypertension research community. He has since 1991 been an integral member of the UI Abboud Cardiovascular Research Center, and in 2014 became the founding director of the UI Center for Hypertension Research. In announcing Sigmund's selection as Chair-Elect, current Chair of the COH, Joey P. Granger, Ph.D., referenced Sigmund's many contributions to the research community, including his editorial work for journals such as *Hypertension* and the *American Journal of Physiology* and his service through leadership in organizations such as the American Physiological Society. Please join us in congratulating Curt on this impressive recognition by his peers!

## Research in the Capitol 2018

Pharmacology undergraduate researchers **Timothy Nguyen (Chen lab)** and **Shao Zhang (Grobe lab)** represented the University of Iowa at the *Research in the Capitol 2018* day in April. **Angela Schab (D. Quelle lab)** was among UI representatives in *Research in the Capitol 2017* (which we regret not previously announcing). Each year, just twenty students from each of the three major state universities (the University of Iowa, Iowa State University, and the University of Northern Iowa) are selected to present their research in the Rotunda of the State Capitol in Des Moines. State legislators, Regents, and guests interact with the students and learn about the exciting research being performed by undergraduates at Iowa's universities. Tim, Shao and Angela represented both Pharmacology and the CCOM. We applaud them all on their selection as our representatives, and for their worthy efforts in promoting Pharmacology research in our capitol!

# Iowa Pharmacology TRAINEE NEWS

## Downtown banners highlight pharmacology trainees

Three graduate students training in Pharmacology are featured in the UI 2018 *Dare to Discover* banner campaign. The campaign gives recognition to undergraduate and graduate students from across the University of Iowa for their scholarly and creative activities. Pharmacology trainees **Lucas BonDurant** (Molecular Medicine, **Potthoff** laboratory), **Sharon Idiga** (Molecular Medicine, **Potthoff** laboratory), and **Katie Perschbacher** (Molecular Medicine, **Grobe** laboratory) are among 64 UI students being featured on a series of black and gold banners on display throughout Iowa City. In announcing the *Dare to Discover* banner campaign, Associate Provost for Graduate and Professional Education and Dean of the Graduate College John Keller said “We’re thrilled to be able to recognize so many students from such diverse disciplines who are contributing to the body of knowledge in everything from medicine and engineering to language and the arts. These represent not only some of the University of Iowa’s brightest minds, but our country’s brightest future.”

To learn more about the 2018 *Dare to Discover* banner campaign and read the stories behind the students that are featured, see <https://dare.research.uiowa.edu/>.

## Idiga and Perschbacher winners in 3MT Competition



Two graduate students training in Pharmacology laboratories were winners in the UI Graduate College Fall 2017 *Three Minute Thesis Competition*. **Sharon Idiga** (at left) was named *Winner* and recipient of the *People’s Choice Award*, and **Katie Perschbacher** (at right) received an

*Honorable Mention* award. The *Three Minute Thesis Competition* challenges graduate students to communicate their research in three minutes or less in non-specialist language. Sharon is a third-year student in the Molecular Medicine Ph.D. Program working under the mentorship of **Dr. Matthew Potthoff**. She completed her bachelor’s degree in Molecular, Cellular and Developmental Biology at the University of California, Santa Cruz. Her research



focuses on the central mechanisms of suppression of sugar intake and sweet-taste preference by the hormone FGF21. Katie is a fourth-year student in the Molecular Medicine Ph.D. Program training with **Dr. Justin Grobe**. She completed her bachelor’s degree at Luther College in Decorah, Iowa. Her research is focused on identifying the early molecular mechanisms that lead to preeclampsia, a cardiovascular disorder of pregnancy. Join us in congratulating both Sharon and Katie on their award-winning 3MT presentations!

Learn more about all the *Three Minute Thesis* finalists and view their presentations on the finalist [showcase website](#).

## Pharmacology trainees win FOEDRC and CCOM poster awards

Pharmacology Graduate Program and Pharmacological Sciences Training Grant students received several awards at the Fraternal Order of Eagles Diabetes Research Center (FOEDRC) 2018 *Research Day* and the CCOM 2018 *Health Sciences Research Week*. In February, at the FOEDRC *Scientific Poster Session*, graduate students **Sharon Idiga** (Molecular Medicine, **Potthoff** lab) and **Rachel Minerath** (Pharmacology, Grueter lab) and postdoctoral scholars **Guorui Deng** (**Grobe** lab) and **John Reho** (**Rahmouni** lab) were recipients of top poster awards. At the annual CCOM *Health Sciences Research Week* in April, best poster awards were given to graduate students **Grant Walters**, (Neuroscience Graduate Program, **Usachev** lab) and **Kai Rodgers** (MSTP, Maury lab) and postdoctoral scholar **Dr. Kyle Flippo** (**Potthoff** lab). We congratulate our trainees on the recognition received by their research presentations!

### Bell’s Paper Makes Cover of Molecular Metabolism

The prestigious journal *Molecular Metabolism* featured on the cover of its February 2018 issue an article first-authored by Balyssa Bell (PhD 2018). The article, entitled “Differential Contribution of POMC and AgRP Neurons to the Regulation of Regional Autonomic Nerve Activity by Leptin,” describes studies of Bell and co-authors Shannon M. Harlan (Internal Medicine), Donald A. Morgan, Deng-Fu Guo, and Kamal Rahmouni. Bell performed her thesis research in the Rahmouni lab. Congratulations to Balyssa and Kamal! (See [Cover Story](#).)



# THE FUNDING STREAM

## Recent Pharmacology grant awards

Since our last newsletter, Pharmacology faculty and trainees have won a number of new grant and fellowship awards! The diversity of the agencies providing these awards reflects the tenacious effort made by our faculty and trainees to secure funding for their research. We applaud all of your efforts!

## Trainee fellowship awards

### **Iowa Center for Research by Undergraduates (ICRU) Summer Research Fellowships**

**Timothy Nguyen (Undergraduate Student, Chen lab)**

**Brandon Toth (Undergraduate Student, Cui lab)**

**Henry Wang (Undergraduate Student, Rahmouni lab)**

**Shao Zhang (Undergraduate Student, Grobe lab)**

### **Extramural Undergraduate Fellowship Awards**

**Shao Zhang (Undergraduate Student, Grobe lab)**

American Physiological Society UGREF – Sufficiency of AVPR-1A and -2 Receptors to Initiate Preeclampsia Phenotypes in Mice

**Kevin Chen (Undergraduate Student, Grobe lab)**

American Physiological Society UGSRF – Alterations in Urine Aquaporin-2 vs Copeptin Ratio in Preeclampsia

### **UI Graduate College Predoctoral Fellowship Award**

**Sheps King-McAlpin (Molecular Medicine Graduate Student, Potthoff lab)**

Underrepresented Minority Pre-Comprehensive Mentored Summer Research Fellowship

### **Extramural Predoctoral Fellowship Awards**

**Sharon Idiga (Molecular Medicine Graduate Student, Potthoff lab)**

American Heart Association Predoctoral Fellowship – Novel Endocrine Circuit Regulating Sugar Satiety

**Sarah Sapouckey (Molecular Medicine Graduate Student, Grobe lab)**

American Heart Association Predoctoral Fellowship – Mechanisms of the Arcuate Nucleus Leptin-Angiotensin Interaction in the Control of Metabolism

### **Extramural Postdoctoral Fellowship Award**

**Kristin Claflin (Postdoctoral Research Scholar, Potthoff lab)**

NIH/NRSA - Identification of a Novel Neural Circuit Regulating Energy Expenditure and Glucose Homeostasis

## Faculty grant awards

### **Intramural Grant Awards to Pharmacology Faculty**

**Matt Potthoff (Associate Professor)**

CCOM Research Investment Pilot Grant – Central Regulation of Macronutrient Preference by FGF21, \$100,000

### **Extramural Grant Awards to Pharmacology Faculty**

**Justin Grobe (Associate Professor)**

American Heart Association EIA – Hypothalamic Mechanisms of Cardiometabolic and Obstetric Disease, \$400,000

**Stefan Strack (Professor), Yuriy Usachev (Professor), and Mark Yorek (Professor, Internal Medicine)**

NIH R01 (MPI) - Targeting Mitochondrial Fission for Neuroprotection in Diabetic Neuropathy, \$1,702,888

**Rory Fisher (Professor)**

NIH R01 - RGS6 in Mesolimbic Circuits as a Therapeutic Target for Alcohol Use Disorders, \$2,013,692

**Catherine Marcinkiewicz (Assistant Professor)**

NIH/K99 - The Role of Serotonin Signaling in the Nucleus Accumbens in Excessive Alcohol Drinking, \$128,592

**Stefan Strack (Professor)**

Jordan's Guardian Angels - Deciphering Molecular Pathogenesis and Developing Mouse Models of PPP2R5D, \$360,031

**Chou-Long Huang (Professor, Internal Medicine) and Curt Sigmund (Professor)**

NIH T32 Training Grant (MPI) - Iowa Training Program in Kidney and Hypertension Research, \$1,700,000

# IOWA PHARMACOLOGY

## MEET OUR NEW GRADUATES!

### Meet Our New Grads!

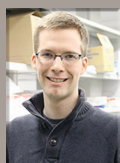
Since our last reporting, *eight students* performing their thesis studies in the Department of Pharmacology have successfully completed their *MS and PhD* degrees!

Join us in congratulating:



*Balyssa Bell, PhD May 2018 - Rahmouni lab*  
*"Hypothalamic Mechanisms Underlying the Cardiovascular and Metabolic Actions of Leptin."*

*Lucas BonDurant, PhD May 2018\* - Potthoff lab*  
*"The Regulation of Glucose Homeostasis by FGF21"*



*Jeremy Sandgren, PhD Dec 2017\*\* - Grobe lab*  
*"Vasopressin in Preeclampsia"*

*Addison Woll, MS Dec 2017\* - Sigmund lab*  
*"Role of PPAR $\gamma$  and Retinol Binding Protein 4 in the Vascular Endothelium"*



*Magdalene Ameka, PhD Dec 2017\* - Potthoff lab*  
*"The Role of Fibroblast Growth Factor 21 (FGF21) in Regulating Energy Homeostasis"*

*Charles Warwick, PhD May 2017 - Usachev lab*  
*"The Role of Complement Component C5a in Nociceptive Sensitization"*



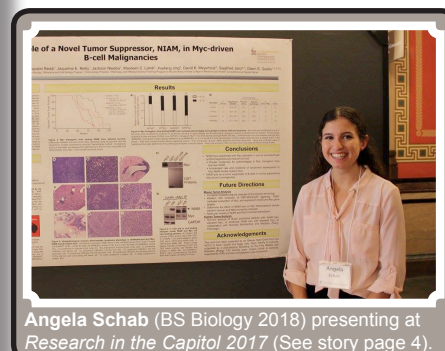
*Kyle Flippo, PhD May 2017 - Strack lab*  
*"Phosphoregulation of Drp1 at the Mitochondria in vivo Regulates Ischemic Sensitivity in the Brain and Memory"*

*Kristin Claflin, PhD Dec 2016 - Grobe lab*  
*"The Brain Renin-Angiotensin System in Metabolic and Cardiovascular Regulation"*



\*Molecular Medicine (formerly Molecular and Cellular Biology Graduate Program) student

\*\*MSTP/Pharmacology student; degree to be awarded at completion of MD



Angela Schab (BS Biology 2018) presenting at Research in the Capitol 2017 (See story page 4).

## GIVING OPPORTUNITIES

The research and teaching missions of UI Pharmacology receive critical support in the form of generous gifts from friends and alumni. Contributions to the **Pharmacology Development Fund** or specifically designated gifts to UI Pharmacology can be made at:

[GIVING OPPORTUNITIES](#)

## CONTACT US

To mail in a gift or to receive more information about giving, please contact:

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 P.O. Box 4550  
 Iowa City, IA 52244-4550  
 (800) 648-6973 | (319) 335-3305  
[madelynn-krall@uiowa.edu](mailto:madelynn-krall@uiowa.edu)

## OUR APPRECIATION

We thank those of you who have already made generous contributions to UI Pharmacology!

## UPCOMING EVENTS

### Visiting Speaker Seminar Aug 28

John W. Elrod, PhD  
Assistant Professor  
Center for Translational Medicine  
Department of Pharmacology  
Lewis Katz School of Medicine  
Temple University

### Faculty Seminar Sept 11

Huxing Cui, PhD  
Assistant Professor  
Department of Pharmacology  
University of Iowa

### Inclusive Excellence Seminar Sept 18

Saul A. Villeda, PhD  
Assistant Professor  
Department of Anatomy  
Eli and Edythe Broad Center of  
Regeneration Medicine and Stem  
Cell Research, University of  
California, San Francisco

### Visiting Speaker Seminar Oct 2

Paul A. Insel, MD  
Distinguished Professor  
Pharmacology and Medicine  
Co-Director, Medical Scientist  
Training Program  
University of California, San Diego

### Visiting Speaker Seminar Oct 9

Philippe M. Soriano, PhD  
Professor  
Cell, Developmental and  
Regenerative Biology  
Icahn School of Medicine at  
Mount Sinai

### Michael J. Brody Lecture Oct 18

Douglas R. Lowy, MD  
Chief, Laboratory of Cellular  
Oncology, Head, Signaling and  
Oncogenesis Section, Acting  
Director, National Cancer Institute  
Center for Cancer Research

### Faculty Seminar Oct 23

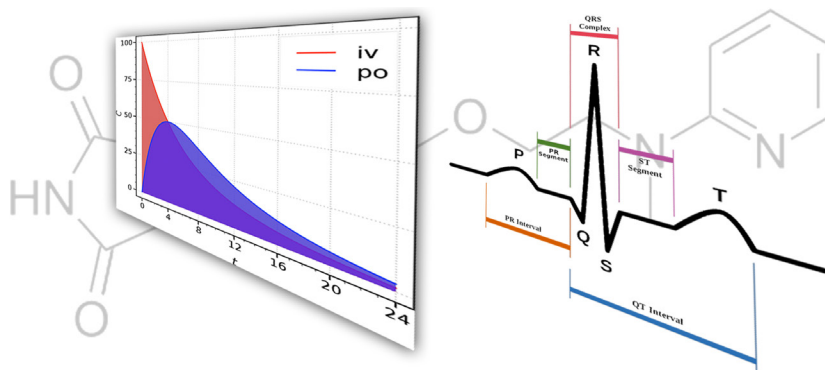
Deniz Atasoy, PhD  
Assistant Professor  
Department of Pharmacology  
University of Iowa

### Visiting Speaker Seminar Oct 30

Javier González Maeso, PhD  
Associate Professor  
Physiology and Biophysics  
Virginia Commonwealth University  
School of Medicine



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