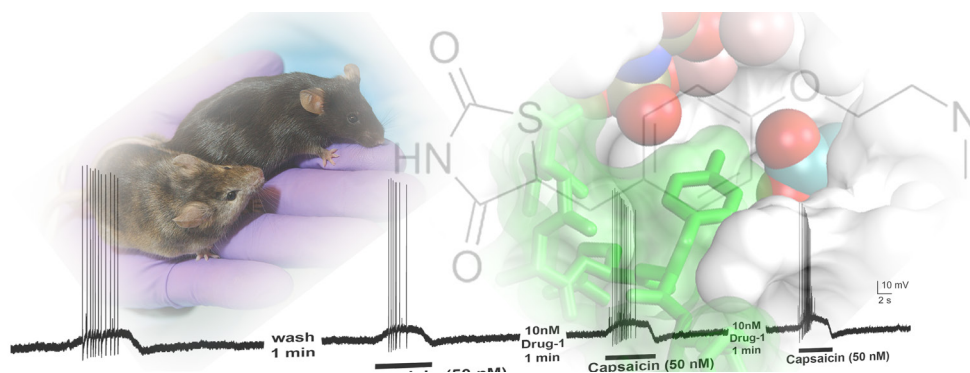


Iowa Pharmacology NEWS

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

VOLUME 6 ISSUE 2

WINTER 2018



Ted Abel named Interim Chair/DEO



Ted Abel, Ph.D., University of Iowa Carver College of Medicine Roy J. Carver Chair in Neuroscience and Director of the Iowa Neuroscience Institute, was appointed as Interim Chair and DEO of the Department of Pharmacology, effective Nov. 12, 2018. Abel succeeds **Curt Sigmund, Ph.D.**, who has led the Department since 2010 (see story Page 2).

“We are delighted that Dr. Abel will lead the Department of Pharmacology,” said **Brooks Jackson, M.D., M.B.A.**, UI Vice President for Medical Affairs and Dean of the UI Carver College of Medicine. “I look forward to working with Ted as we conduct a search for a permanent chair of the department.” Jackson also expressed thanks to Sigmund for nearly three decades of service to the college. “Dr. Sigmund has been a longtime faculty member here at Iowa and an outstanding scientist, teacher and mentor, and leader for the department and the college,” Jackson said, “We all wish him the best.”

Abel, who came to Iowa in 2017 from the University of Pennsylvania, will continue to lead the Iowa Neuroscience Institute, an interdisciplinary center that includes researchers from across the university focused on the causes, treatments, and prevention of diseases of the brain and nervous system. Abel holds a primary faculty appointment in the Carver College of Medicine Department of Molecular Physiology and Biophysics, secondary appointments in the Departments of Psychiatry and Biochemistry, and a faculty appointment in the College of Liberal Arts and Sciences Department of Psychological and Brain Sciences.

See the original story at: <https://medcom.uiowa.edu/theloop/news/ted-abel-named-interim-chair-deo-of-ui-department-of-pharmacology>.

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Iowa Pharmacology OUR CONGRATULATIONS

Former Pharmacology Chair and DEO Curt Sigmund departs



Curt Sigmund, Ph.D., Roy J. Carver Chair in Hypertension Research and Professor and former DEO of Pharmacology, will assume the position of Chair of the Department of Physiology at the Medical College of Wisconsin in Milwaukee, effective January 2, 2019. **Ted Abel, Ph.D.**, Professor of Molecular Physiology and Biophysics, was appointed as Interim Chair and DEO of Pharmacology, effective Nov. 12, 2018 (see story Page 1).

Curt Sigmund joined the UI faculty in 1991, and has held appointments in the Departments of Internal Medicine, Molecular Physiology and Biophysics, and Pharmacology. He was named to the Carver Chair in Hypertension Research in 2008, and was appointed as Chair and DEO of Pharmacology in 2010. Dr. Sigmund has been throughout his career an outstanding researcher, educator, and mentor, and is internationally recognized by the cardiovascular research community. Among his noteworthy achievements as Chair of Pharmacology are his leadership during a three-year physical renovation of the Department, his recruitment of several new faculty members, his committed mentoring of our junior faculty, and his service as founding director of the UI Center for Hypertension Research.

A farewell reception for Dr. Sigmund held in November was well attended by his many friends and colleagues at the UI. Sigmund expressed his gratitude for the camaraderie of his colleagues in his role as Chair of Pharmacology, the efforts of the Pharmacology office staff, the contributions of past and present Sigmund lab members, and the ongoing support of his wife Rita.

The Department wishes to recognize the great skill and dedication with which Dr. Sigmund led Pharmacology over the past eight years. We wish both Curt and Rita good health and the best of success in all of their future endeavors!

See the original announcement at: <https://medcom.uiowa.edu/theloop/news/pharmacology-chair-and-deo-curt-sigmund-departing>.

Dawn Quelle work to be honored on Wall of Scholarship plaques



Two published works of **Dawn Quelle, Ph.D.**, Associate Professor of Pharmacology, will be recognized on a newly created UI Carver College of Medicine *Wall of Scholarship*. The *Wall of Scholarship* will celebrate the outstanding research achievements of CCOM faculty,

with plaques highlighting papers from faculty that are distinguished by being cited over 1,000 times, a distinction that testifies to the importance and impact of these scientific works. Dr. Quelle's celebrated papers are "Overexpression of mouse D-type cyclins accelerates G1 phase in rodent fibroblasts" (Quelle D.E., Ashmun R.A., Shurtleff S.A., Kato J.Y., Bar-Sagi D., Roussel M.F., Sherr C.J., *Genes Dev.* 7(8):1559-71, 1993) and "Alternative reading frames of the INK4a tumor suppressor gene encode two unrelated proteins capable of inducing cell cycle arrest" (Quelle D.E., Zindy F., Ashmun R.A., Sherr C.J., *Cell* 83(6):993-1000, 1995). Join us in congratulating Dawn on this recognition of her outstanding scientific and academic achievements!

Marcinkiewicz receives NARSAD Young Investigator Grant



Catherine Marcinkiewicz, Ph.D., Assistant Professor of Pharmacology, was awarded a NARSAD Young Investigator Grant from the Brain and Behavior Research Foundation. The two-year, \$70,000 grant will fund her study of the connection between two regions of the brain that

contribute to social functioning, to determine how it might be disrupted in schizophrenia. Using a technique that enables simultaneous recording of neuronal activity in two different brain regions, she will determine if mice that exhibit deficits in social interaction have reduced connectivity between these two regions. These studies will provide insight regarding how these two regions of the brain communicate during social interaction, which could identify new targets for treatment of social deficits in schizophrenia. See the CCOM announcement at <https://medicine.uiowa.edu/content/ui-neuroscientists-receive-narsad-young-investigator-awards>.

Iowa Pharmacology OUR CONGRATULATIONS

Rahmouni receives new Veteran Affairs Merit Award

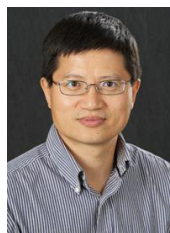


Kamal Rahmouni, Ph.D., Professor of Pharmacology, received a new four-year \$1.4M Merit Award from the Department of Veterans Affairs for a research project entitled “Neuronal Mechanisms of Obesity-Induced Hypertension.” Obesity has become common in the US and among the VA

population and has major ramifications. Obesity is a major risk factor for the development of serious medical conditions, including hypertension (a condition that leads to stroke), kidney failure, coronary artery disease and heart failure. The research funded by Dr. Rahmouni’s Merit Award focuses on exploring the cellular and molecular processes by which the brain influences blood pressure and understanding how dysregulation of these processes leads to hypertension in obesity. The aim is to better understand

the cardiovascular risks associated with obesity.

Chen and Stamnes receive Carver Collaborative Grant



Songhai Chen, M.D., Ph.D. (pictured), Associate Professor of Pharmacology, and Mark Stamnes, Ph.D., Associate Professor of Molecular Physiology and Biophysics, were recently awarded a Carver

Collaborative Pilot Grant. Their research project, “Identification of Novel Genetic Determinants of Endocrine Resistance in Breast Cancer by an In Vivo CRISPR-Based Screen,” will determine the role of candidate genes identified from a CRISPR-based screen in ER+ breast cancer progression and response to endocrine therapies, and elucidate the underlying mechanisms. The pilot grant was awarded by a Carver College of Medicine program funded by the Roy J. Carver Charitable Trust.

National Medal Recipient Douglas Lowy Presents 2018 Michael J. Brody Lecture



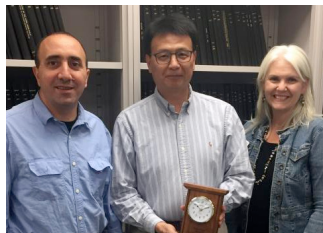
Douglas Lowy, M.D., Deputy Director of the NIH National Cancer Institute (NCI), presented the 2018 *Michael J. Brody Lecture* in October. Dr. Lowy joined the impressive list of world-renowned scientists invited by Pharmacology graduate students to present the annual *Brody Lecture*, which has been a signature event in Pharmacology since its establishment in 1993. Now part of the *Distinguished Biomedical Scholar Lecture Series* of the Carver College of Medicine, the lecture was established in honor of **Dr. Michael J. Brody**, a longtime Professor of Pharmacology who was an esteemed cardiovascular researcher, an outstanding educator and mentor, and a leading voice in university governance. A cancer researcher for more than 40 years, Dr. Lowy received the *National Medal of Technology and Innovation* from President Obama in 2014 for his research leading to the development of the human papillomavirus (HPV) vaccine. HPV vaccination is now credited with

lowering the incidence of cervical cancer in women and oral and other cancers in men and women. The title of Dr. Lowy’s outstanding lecture was “Global Control of HPV-associated Cancers by Vaccination and Screening.”

As chief of the Laboratory of Cellular Oncology in the Center for Cancer Research at NCI, Lowy’s research includes the biology of papillomaviruses and the regulation of normal and neoplastic growth. His laboratory, in close collaboration with John T. Schiller, Ph.D., was involved in the initial development, characterization, and clinical testing of the preventive virus-like particle-based HPV vaccines that are now used in the three FDA-approved HPV vaccines. Dr. Lowy is a member of the National Academy of Sciences, as well as its Institute of Medicine. For their pioneering work, Lowy and Schiller have received numerous honors in addition to the *National Medal*, including the *Federal Employee of the Year Award* in 2007 from the Partnership for Public Service, the 2011 *Albert B. Sabin Gold Medal Award*, and the 2017 *Lasker-DeBakey Clinical Medical Research Award*. Dr. Lowy received his medical degree from New York University School of Medicine and trained in internal medicine at Stanford University and dermatology at Yale University.

To read more about the Michael J. Brody Lecture, see <https://www.medicine.uiowa.edu/pharmacology/news-events/michael-j-brody-memorial-lecture>.

Deng-Fu Guo receives Iowa Outstanding Staff Award



Dr. Deng-Fu Guo, Assistant Research Scientist in the **Rahmouni** lab, received the *2018 UI Outstanding Staff Award* based on his tremendous contributions toward the research and teaching missions

of the UI during his eleven years of service to date. His unique laboratory skills and creativity have allowed him to push technical boundaries and extend the repertoire of the approaches that can be applied in his research. Deng's tremendous experience has allowed him to make substantial contributions to understanding the molecular mechanisms that regulate energy balance and how disruption of these processes leads to obesity. Over his career, Deng has published 69 papers including 18 since joining the UI. Many of his articles report seminal findings and are published in high-impact journals. Deng has been involved in training a number of undergraduate and graduate students and postdoctoral fellows of the UI and visiting scholars from other national and international institutions. Deng's prestigious award was presented at our September faculty meeting, and celebrated at the *2018 Staff Excellence Award Ceremony* in October. Our congratulations to Deng!

See the original story in [IOWA Now](#).

Hammond honored with Board of Regents Faculty Excellence Award



Donna H. Hammond, Ph.D., Professor and Vice Chair for Research of Anesthesia and Professor of Pharmacology, was honored this Fall with the *Iowa Board of Regents Award for Faculty Excellence*. Dr.

Hammond is internationally recognized for her research into the neurobiology of pain, and has made groundbreaking contributions to the understanding of brainstem mechanisms that contribute to the development of chronic pain. A dedicated teacher and mentor, she has served as principal investigator for a training grant in the Pain Research Program for more than

ten years, and in 2015 she successfully competed for an NIH R25 grant to support a program that positions underrepresented minorities to succeed in post-baccalaureate research education in the biomedical sciences. She has provided exceptional leadership during several times of transition, including four years as Interim Chair of the Department of Pharmacology, three years as Interim Executive Associate Dean of the Carver College of Medicine, and for a brief period as Acting Dean before serving an additional two years as Executive Associate Dean. Please join us in congratulating Donna on this recognition of her outstanding contributions to the University!

See the original story in [IOWA Now](#).

Shaik Amjad abstract chosen for NANETS presentation



The abstract of **Ume Salma Shaik Amjad, Ph.D.**, Assistant Research Scientist in the **Dawn Quelle** laboratory, was selected for an oral presentation at the North American Neuroendocrine Tumor Society (NANETS) *2018 Annual Multidisciplinary NET Disease Symposium*. Dr. Shaik Amjad also received

an award that covered the expenses of her travel and attendance at the symposium. Her abstract, entitled "A RABL6A-PP2A-AKT pathway drives pancreatic neuroendocrine tumor growth," was presented in Seattle at the October meeting. We congratulate Salma on this recognition of her work!

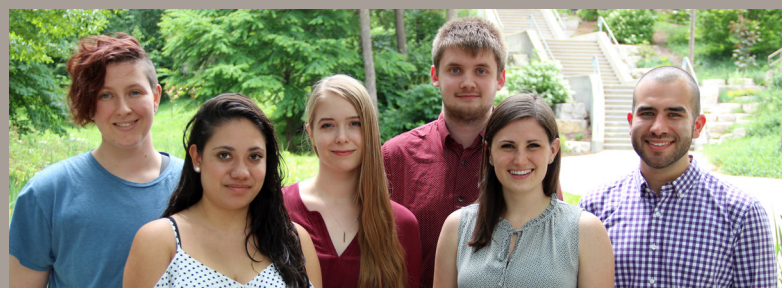


2018 Research Retreat

Iowa Pharmacology **TRAINEE NEWS**

New Pharmacological Sciences training grant appointees named

Alex Keyes (Pharmacology, **Usachev** lab) and **Mackenzie Spicer** (Molecular Medicine, **Fisher** lab) were among six graduate students recently appointed to the Pharmacological Sciences Predoctoral Research Training Program. Funded by an NIH T32 training grant with additional institutional support and administered by the Department of Pharmacology (PI **Stefan Strack**), the program provides two years of stipend and tuition support for its trainees. The training program is truly interdisciplinary with its students and faculty trainers representing eleven different UI departments and programs from three colleges. While supported by the program, students take coursework specifically tailored to its trainees, participate in the Pharmacology seminar program, and present their work at our annual research retreat. We congratulate all of the new training grant appointees!



2018-2019 Pharmacological Sciences Training Program Trainees

From left (with program affiliations and faculty mentors): Alex Keyes (Pharmacology, Yuriy Usachev), Maria Nunez-Hernandez (Biochemistry, Miles Pufall), Rachel Crawford (Pharmaceutical Sciences and Experimental Therapeutics, Jonathan Doorn), Devon Moose (Cancer Biology, Michael Henry), Mackenzie Spicer (Molecular Medicine, Rory Fisher), and Wade Gutierrez (Cancer Biology, Rebecca Dodd).

Pharmacology Research Retreat 2018

The annual joint research retreat of the Pharmacological Sciences Training Program and the Departments of Pharmacology and Pharmaceutical Sciences and Experimental Therapeutics (PSET) was held in August at the UI Kirkwood Regional Center in Coralville. The modern facility provided a great venue for a full day of activities including a continental breakfast, lunch, oral presentations by selected students, postdocs and faculty, and posters presentations



2018 Research Retreat Presentation Award Winners

From left (with program affiliations and faculty mentors): Katelin Ahlers-Dannen (Postdoc, Pharmacology, Rory Fisher), Chian Ju Jong (Postdoc, Pharmacology, Stefan Strack), Jordan Kohlmeyer (Graduate Student, Molecular Medicine, Dawn Quelle), Colleen Caldwell (Graduate Student, Biochemistry, Maria Spies), Devon Moose (Graduate Student, Cancer Biology, Michael Henry), Alex Keyes (Graduate Student, Pharmacology, Yuriy Usachev), Dharmendra Bhargava (Postdoc, Pharmacology, Songhai Chen).

showcasing the research ongoing across the training program and two departments. A highlight of the event was the keynote address of **Dr. Joey Barnett**, Vanderbilt University, entitled “Rethinking Ph.D. Training.” Poster prizes in graduate student and postdoc categories and an oral presentation prize for graduate students were awarded at the close of the retreat.

Based on the enthusiasm shown by participants at the event, the 2018 retreat was clearly a success. We look forward to next year’s retreat, and thank all of this year’s attendees for their spirited participation! See more images from the event on Pages 4 and 7.

Pharmacology trainees win presentation awards

At the annual retreat of the Molecular Medicine Graduate Program, **Mackenzie Spicer**, a graduate student working in the **Fisher** lab, received a first-place poster award, and **Sharon Idiga**, a graduate student in the **Potthoff** lab, received a first-place award for her oral presentation. At the Scientific Poster Session during the Fraternal Order of Eagles Diabetes Research Center Annual Retreat in December, **John Reho**, a postdoctoral scholar in the **Rahmouni** lab, won a second-place poster award. Also, **Timothy Nguyen**, an undergraduate researcher in the **Chen** lab, received a *Commended Poster Presentation Award* at the Iowa Center for Research by Undergraduates Fall Research Festival. Please join us in congratulating these students on the excellence of their research and scientific presentations.

THE FUNDING STREAM

Recent Pharmacology grant awards

Pharmacology faculty and trainees continue to compete successfully for new grant and fellowship awards! New extramural awards to our faculty again include those from traditional funding agencies as well as those from private foundations. Our predoctoral and postdoctoral trainees have once again been competitive in the pursuit of fellowship awards, which greatly leverages departmental research grant funding. Congratulations to all the following students and faculty on their new grants awards!

Trainee fellowship awards

UI Graduate College Predoctoral Fellowship Awards

Karen Clark (Genetics Graduate Student, Kwitek lab)
Chandra Maharjan (Pharmacology Graduate Student, D. Quelle lab)
Mengya Wang, (Pharmacology Graduate Student, Russo lab)
Post-comprehensive Research Awards for Spring 2019 semester

Extramural Predoctoral Fellowship Award

Sharon Idiga (Molecular Medicine Graduate Student, Potthoff lab)
NIH/NRSA Predoctoral Fellowship to Promote Diversity – Novel Endocrine Circuit Regulating Sugar Satiety

Extramural Postdoctoral Fellowship Awards

Gary Deng (Postdoctoral Research Scholar, Grobe lab)
American Heart Association – Mechanisms of Angiotensin AT1A Signal Transduction in AgRP Neurons for Metabolic Rate Control
Uday Singh (Postdoctoral Research Scholar, Cui lab)
American Heart Association – The Role of PVN MC4R Circuits in Obesity-associated Hypertension

Faculty grant awards

Intramural Grant Awards to Pharmacology Faculty

Songhai Chen (Associate Professor), Mark Stamnes (Associate Professor, Internal Medicine)
Carver Trust Collaborative Pilot Grant – Identification of Novel Genetic Determinants of Endocrine Resistance in Breast Cancer by an In Vivo CRISPR-Based Screen, \$50,000

Justin Grobe (Associate Professor)
Carver Trust Medical Research Initiative Grant – Are Principal Cells the 'Principal Problem' for Preeclampsia?, \$30,000

Extramural Grant Awards to Pharmacology Faculty

Matthew Potthoff (Associate Professor)
NIH R01 Minority Supplement – Regulation of Carbohydrate Metabolism by FGF21 Action on Brown Adipose Tissue, \$123,238

Kamal Rahmouni (Professor)
VA Merit Award – Neuronal Mechanisms of Obesity-induced Hypertension, \$1,397,166

Curt Sigmund (Professor)
NIH P01 Program Project Grant – Genetic and Signaling Mechanisms in the Central Regulation of Blood Pressure, \$9,153,180

Stefan Strack (Professor), Jason Radley (Associate Professor, Psychology)
NIH R21 – Mitochondrial AKAP1 Signaling in Chronic Stress-induced Prefrontal Structural and Functional Plasticity, \$419,375

Stefan Strack (Professor)
Ataxia Charlevoix-Saguenay Foundation – Unbiased Sacsin Client Identification and Genetic Intervention in a Mouse Model of ARSACS, \$37,995

Catherine Marcinkiewicz (Assistant Professor)
NARSAD – Deconstructing Prefrontal Connectivity with the Dorsal Raphe in Social Behavior, \$70,000
NIH/K99 Supplement – The Role of Serotonin Signaling in the Nucleus Accumbens in Excessive Alcohol Drinking, \$125,795

IOWA PHARMACOLOGY

WELCOME NEW STUDENTS!

Introducing Our New Students!!

Iowa Pharmacology News welcomes two new predoctoral trainees to the Department! In the past year, Mackenzie Spicer and Valerie Wagner have begun their thesis research in Pharmacology labs. Their former institutions, graduate program affiliations, and thesis advisors are:



*Mackenzie Spicer
Hanover College,
Molecular Medicine, Fisher*

Valerie Wagner

*University of Wisconsin-Oshkosh,
Genetics, Kwitek*



Please join us in welcoming these talented new students, and wishing them the best of luck with their careers!



Pharmacology Research Retreat 2018
Group Photo

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](#)

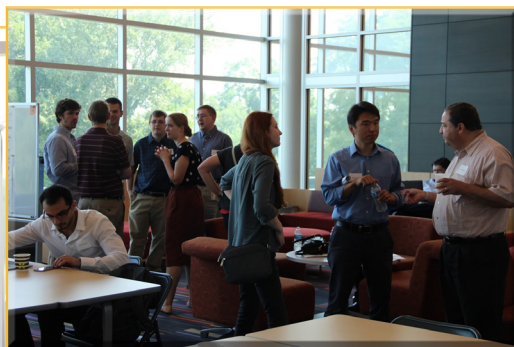
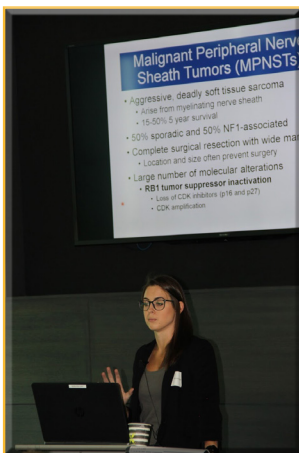
CONTACT US

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

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University of Iowa Foundation
P.O. Box 4550
Iowa City, IA 52244-4550
(800) 648-6973 | (319) 335-3305
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OUR APPRECIATION

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



Photos from Pharmacology Research Retreat 2018

UPCOMING EVENTS

Visiting Speaker Seminar Dec 4

Changcheng Zhou, PhD
Associate Professor
Department of Pharmacology and
Nutritional Sciences
University of Kentucky
College of Medicine

Visiting Speaker Seminar Jan 15

Eric M. George, PhD
Assistant Professor
Department of Physiology
and Biophysics, University of
Mississippi Medical Center

Visiting Speaker Seminar Jan 29

Yevgenia Kozorovitskiy, PhD
Assistant Professor
Department of Neurobiology
Northwestern University

Visiting Speaker Seminar Feb 26

Vanna Zachariou, PhD
Professor
Departments of Neuroscience
and Pharmacological Sciences
Icahn School of Medicine
at Mount Sinai

Visiting Speaker Seminar Mar 5

Garret D. Stuber, PhD
Center for the Neurobiology of
Addiction, Pain, and Emotion
Department of Anesthesiology
and Pain Medicine and
Department of Pharmacology
University of Washington

Faculty Seminar Mar 12

Katelin E. Ahlers-Dannen, PhD
Associate
Department of Pharmacology
University of Iowa

Visiting Speaker Seminar Mar 26

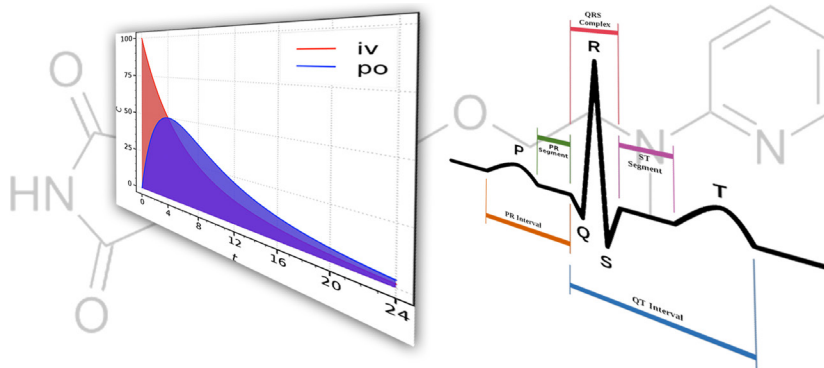
Coles Haynes, PhD
Associate Professor
Department of Molecular, Cell
and Cancer Biology
University of Massachusetts
Medical School

Faculty Seminar May 14

Kathleen Markan, PhD
Research Assistant Professor
Department of Pharmacology
University of Iowa



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