

## Abel appointed Chair and DEO of newly renamed Department of Neuroscience and Pharmacology



The Department of Neuroscience and Pharmacology is excited to announce that following his one-year stint as our interim chair, **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 September 16 as our Chair and DEO. A prior request to rename the Department of Pharmacology as the Department of Neuroscience and Pharmacology was approved at the August 1 meeting of the Board of Regents, State of Iowa. The request was made by the CCOM and spearheaded by then interim chair Abel (See story page 2).

“We are delighted that Dr. Abel has agreed to become the permanent Chair and DEO of Neuroscience and Pharmacology,” said **Brooks Jackson, M.D., M.B.A.**, UI Vice President for Medical Affairs and the Tyrone D. Artz Dean of the Carver College of Medicine. “He is an outstanding scientist and a skilled leader with a real passion for fostering collaboration and developing the next generation of scientists.”

See more on this story at: <https://medicine.uiowa.edu/neuroscience-and-pharmacology/content/ted-abel-named-new-chair-department-neuroscience-and-pharmacology>, and <https://now.uiowa.edu/2019/10/abel-named-chair-and-deo-department-neuroscience-and-pharmacology>.

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## Pharmacology rechristened as Department of Neuroscience and Pharmacology

Yes, Pharmacology alums, this is your newsletter! If you haven't already heard, Pharmacology was recently renamed the Department of Neuroscience and Pharmacology, to reflect the evolving research interests of our faculty and a growing institutional emphasis on neuroscience research. The name was approved by the Iowa Board of Regents on August 1.

In announcing the renaming, **Brooks Jackson, M.D., M.B.A.**, UI Vice President for Medical Affairs and Dean of the UI Carver College of Medicine, stated that "This name change is a true vote of confidence for the outstanding work of the department's faculty, about 80% of whom conduct neuroscience-related research," and "(It) will enhance the department's ability to develop large research groups and compete for collaborative project and center funding in areas such as neurological disease, metabolism and obesity, and pain and neuronal signaling. It will help increase awareness of neuroscience at Iowa, which can boost the reputation and rankings of the CCOM and bolster our efforts to recruit faculty, graduate students, and postdoctoral fellows focused on neuroscience."

Newly appointed Chair and DEO **Ted Abel, Ph.D.** emphasized how the name change could grow the department and neuroscience research at Iowa saying, "The Iowa Neuroscience Institute recently helped the department hire new faculty and acquire additional, valuable resources," adding that "The department brought in over \$8 million in external funding last year." The department has also initiated an effort to recruit more new faculty with outstanding neuroscience and pharmacology research programs (<https://jobs.uiowa.edu/faculty/view/73845>).

See the original announcement at: <https://medicine.uiowa.edu/neuroscience-and-pharmacology/internalmedicine/content/department-pharmacology-renamed-department-neuroscience-and-pharmacology>.

## Catherine Marcinkiewicz elected to American College of Neuropsychopharmacology



**Catherine Marcinkiewicz, Ph.D.**, Assistant Professor of Neuroscience and Pharmacology, was elected as an Associate Member of the American College of Neuropsychopharmacology (ACNP) at their December meeting. ACNP is a leading organization in the field of biological and molecular psychiatry. Marcinkiewicz joined the department in April of 2018 as one of our most recent recruits. Her election as an Associate Member is a recognition of her already impressive record of contributions to the field and a sign of her promising future.

Please join us in congratulating Catherine on receiving this distinguished recognition!



### July 4th Fireworks in Iowa City 2019

This photograph by Neuroscience and Pharmacology graduate student **Chandra Kumar Maharjan (D. Quelle lab)** won First Prize in the "Exploring Local Cultures" category in UI 2019 International Education Week photo contest. Said Chandra in describing his winning photograph, "As an international student, July 4th fireworks are something I look forward to every year. I find this image special because the old capitol building perfectly complements the beauty of the fireworks."

You can see a full-size version of Chandra's photograph and those of the 90-plus semi-finalists at <https://www.flickr.com/photos/international-programs/albums/72157711686073418>.

## Faculty receive grant awards for new research initiatives

Five departmental faculty have recently been awarded grants for exciting new research initiatives. Professor **Kamal Rahmouni, Ph.D.** and Associate Professor **Songhai Chen, M.D., Ph.D.** were one of two teams of researchers to win Accelerator Grants from the Iowa Neuroscience Institute (INI) in November. Their project entitled “Regulation of Breast Cancer Progression by the Central Nervous System” was selected from among 18 applications and was awarded \$75,000 annually for up to two years.

A multi-disciplinary team of UI cancer biologists, pathologists, geneticists, epidemiologists and medical oncologists led by Professor **Dawn Quelle, Ph.D.**

received a second year of funding (\$50,000) from the Holden Comprehensive Cancer Center for their *Mezhir Award* project entitled “Targeting RB1 Pathway in NF1 Tumors.” The project is a translational study focused on understanding the oncogenic pathways driving malignant peripheral nerve sheath tumor (MPNST) growth and exploring new drug treatments.

Assistant Professors **Deniz Atasoy, Ph.D.** and **Huxing Cui, Ph.D.** were awarded \$50,000 *Catalyst Awards* from the Fraternal Order of Eagles Diabetes Research Center. The grants fund innovative pilot projects by early career investigators in the area of diabetes. Atasoy’s project is entitled “Identifying the Defective Feeding Pathways in Hypoglycemia Unawareness,” and Cui’s project is “Fine-mapping of Pancreatic Vagal Circuit for Systemic Glucose Homeostasis: The Role of Melanocortin Signaling.”

## Leptin Discoverer Jeffrey Friedman Delivers 2019 Michael J. Brody Lecture



At the invitation of Neuroscience and Pharmacology graduate students, **Dr. Jeffrey Friedman, M.D., Ph.D.**, Investigator of the Howard Hughes Medical Institute and Marilyn M. Simpson Professor of the Laboratory of Molecular Genetics, Rockefeller University, presented the *2019 Michael J. Brody Lecture* in October. Dr. Friedman’s research into obesity included his seminal discovery in 1994 of the hormone leptin, a critical regulator of food intake, energy expenditure and body weight. His discovery and ensuing research into the mechanism of leptin action have revolutionized our understanding of body weight regulation and the biological basis of obesity. Dr. Friedman joined the impressive list of scientists to present the annual *Brody Lecture*, which honors **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. Now part of the *Distinguished Biomedical Scholar Lecture Series* of the Carver College of Medicine, the lecture has been a signature event in the department since its inception in 1993.

Dr. Jeffrey Friedman received his B.S. from Rensselaer Polytechnic Institute in 1973, his M.D. from Albany Medical College in 1977, and was a postgraduate fellow at Cornell University Medical College until 1981. After a fellowship in the lab of Mary Jane Kreek, Dr. Friedman turned his attention to research and consequently obtained his Ph.D. from The Rockefeller University. In 1986, Dr. Friedman joined the faculty at The Rockefeller, where he has served his entire 33-year career. That same year he was named an Assistant Investigator of the prestigious Howard Hughes Medical Institute, rising to become an Investigator in 1996. In 1998, he was named the Marilyn M. Simpson Professor at The Rockefeller.

Dr. Friedman’s research focuses on the molecular mechanisms that regulate food consumption and body weight. His discovery of leptin continues to play a major role in obesity research and has engendered the view that obesity is a disease caused by hormone imbalance. He has received numerous awards for his work, including the *Shaw Prize*, *Albert Lasker Basic Medical Research Award*, *Harrington Prize for Innovation in Medicine*, *Wolf Prize in Medicine*, and most recently, the *Breakthrough Prize in Life Sciences*. He is a member of the *National Academy of Sciences*, the *National Academy of Medicine*, and *The Royal Society*.

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

# CONGRATULATIONS

## Ted Abel elected to the National Academy of Medicine



We extend our heartiest congratulations to **Dr. Ted Abel, Ph.D.**, Professor and Chair of the Department of Neuroscience and Pharmacology and Director of the Iowa Neuroscience Institute, on his recent election to the prestigious National Academy of Medicine! Election to the National Academy of Medicine (NAM) is one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding professional achievement and commitment to service.

Abel, who also is the Roy J. Carver Chair in Neuroscience, is recognized for his work on the interplay of sleep and memory formation and storage, and the molecular basis of neurodevelopmental and psychiatric disorders, including autism. “We are thrilled for Ted and extremely proud of his accomplishment,” said **Brooks Jackson, M.D., M.B.A.**, University of Iowa Vice President for Medical Affairs and the Tyrone D. Artz Dean of the UI Carver College of Medicine. “Ted is a distinguished scientist and an exceptional leader with a rare talent for mentoring young investigators and creating a collaborative environment in which exciting and innovative ‘team science’ thrives.”

New members of the NAM are elected by current members through a process that recognizes individuals who have made major contributions to the advancement of the medical sciences, health care, and public health. “These newly elected members represent the most exceptional scholars and leaders whose remarkable work has advanced science, medicine, and health in the U.S. and around the globe,” said NAM President Victor J. Dzau. “Their expertise will be vital to addressing today’s most pressing health and scientific challenges and informing the future of health and medicine for the benefit of us all.”

See the full UI press release at <https://medicine.uiowa.edu/neuroscience-and-pharmacology/content/ted-abel-elected-national-academy-medicine>.

## Flippo receives NARSAD Young Investigator Grant



Former Pharmacology graduate student **Kyle Flippo, Ph.D. '17**, current Postdoctoral Scholar in the **Potthoff** laboratory, received a two-year, \$70,000 NARSAD Young Investigator Grant from the Brain and Behavior Research Foundation for his project entitled “Mapping a novel endocrine circuit regulating alcohol consumption.” Flippo is working to identify the mechanisms by which the endocrine hormone Fibroblast Growth Factor 21 signals in the brain to inhibit alcohol consumption. The goal is to develop novel therapeutic methods for treating alcohol use disorder. NARSAD Young Investigator Grants are intended to help promising young scientists launch careers in neuroscience and psychiatry, supporting either extended research fellowship training or starting a research lab as a junior faculty member. Please join us in applauding Kyle on receiving this impressive early career recognition!

## Spicer a winner in UI Three Minute Thesis Competition



**Mackenzie Spicer** received both an Honorable Mention award and the People’s Choice award in the 2019 Three Minute Thesis Competition of the UI Graduate College. The Three Minute Thesis Competition challenges graduate students to communicate their research in three minutes or less in non-specialist language, and thus develop a professional skill that is vital for all graduate students.

Mackenzie received her B.A. degree in Biology from Hanover College in 2017. She is currently a third-year student in the Molecular Medicine Ph.D. Program working in the laboratory of **Dr. Rory Fisher**. Her presentation describes her thesis research into the mechanisms that underlie the development of Parkinson’s disease.

Join us in congratulating Mackenzie on her outstanding 3MT presentation!

Meet all the Three Minute Thesis finalists and view their presentations at <https://www.grad.uiowa.edu/3mt/2019/showcase>

# Neuroscience and Pharmacology **TRAINEE NEWS**

## Pharmacological Sciences training grant appoints new trainees

*Emily Lavering (Biochemistry, Weeks lab), Erica Gansemer (Cell and Developmental Biology, Rutkowski lab), Joe Lesnak (Physical Therapy and Rehabilitation Science, Sluka lab) and Qierra Brockman (Molecular Medicine, Zhan lab) were recently appointed to the Pharmacological Sciences Predoctoral Research Training Program. Students reappointed for 2019-2020 include **Mackenzie Spicer** (Molecular Medicine, **Fisher lab**), Rachel Crawford (Pharmaceutical Sciences and Experimental Therapeutics, Doorn lab), Devon Moose (Cancer Biology, Henry lab), **Alex Keyes** (Pharmacology, **Usachev lab**), Wade Gutierrez (Cancer Biology, Dodd lab), and Maria Nunez Hernandez (Biochemistry, Puffall lab). Funded by an NIH T32 training grant with additional institutional support and administered by the Department of Neuroscience and Pharmacology (PI **Stefan Strack**), the program provides two years of stipend and tuition support for its trainees. Congratulations to all of the 2019-2020 appointees!*



**2019-2020 Pharmacological Sciences Training Program Trainees**  
First row: Emily Lavering, Mackenzie Spicer, Erica Gansemer, Joe Lesnak. Second row: Qierra Brockman, Rachel Crawford, Devon Moose, Alex Keyes, and Wade Gutierrez. Not pictured: Maria Nunez Hernandez.

## Pharmacological and Pharmaceutical Sciences Retreat 2019



**2019 Research Retreat Presentation Award Winners**

From left: Rachel Crawford, Emily Walsh, Mackenzie Spicer, Sharon Jensen-Cody, and Deng Guo. Not pictured: Kristin Claflin and Courtney Kaemmer.



**2019 Research Retreat Group Photo**

The annual joint research retreat of the Pharmacological Sciences Training Program, the Department of Neuroscience and Pharmacology, and the Department of Pharmaceutical Sciences and Experimental Therapeutics was held in November at Iowa's Levitt Center for University Advancement. The day of activities in this well appointed venue included a continental breakfast, lunch, oral presentations by students and faculty, and poster presentations showcasing the research ongoing across the training program and two departments. The keynote address was delivered by **Kevin Tidgewell, Ph.D. '07**, Associate Professor of Medicinal Chemistry at Duquesne University and graduate of the UI Medicinal and Natural Products Chemistry Ph.D. program. His presentation entitled "Using Plant and Bacterial Secondary Metabolites to Target Membrane Receptors Involved in Disease" was extremely well received. Oral and poster presentation prizes were awarded at the conclusion of the retreat. We congratulate Oral Presentation Winner Rachel Crawford (Graduate Student, Doorn lab), Grad Student Poster Winners **Emily Walsh** (Abel lab), **Mackenzie Spicer** (Fisher lab), and **Sharon Jensen-Cody** (Potthoff lab), and Postdoc/Research Staff Poster Winners **Kristin Claflin** (Potthoff lab), **Courtney Kaemmer** (D. Quelle lab), and **Deng Guo** (Rahmouni lab).

Thanks to the dedicated logistical work of our office staff and the enthusiastic participation of all in attendance, the Pharmacological and Pharmaceutical Sciences Research Retreat was once more a great success! (For more images from the retreat see page 7.)

# THE FUNDING STREAM

## Recent Neuroscience and Pharmacology grant awards

Neuroscience and Pharmacology faculty and trainees continue to have great success in competing for both intramural and extramural funding for their research and training! This funding is being procured from a growing diversity of private and public sources, through the determined efforts of our graduate students, postdocs and faculty. Congratulations to all those receiving grant awards since our last reporting!

## Trainee fellowship and grant awards

### UI Graduate College Predoctoral Fellowship Awards

**Yue (Alvin) Deng (Graduate Student, Cui lab)**

Post-comprehensive Research Award for Spring 2020 Semester

**Yujia Liu (Graduate Student, Strack lab)**

Ballard & Seashore Dissertation Fellowship for Spring 2020 Semester

**Bolu Zhou (Graduate Student, Potthoff lab)**

Post-comprehensive Research Award for Spring 2020 Semester

### Extramural Predoctoral and Postdoctoral Fellowship and Grant Awards

**Shi Fang (Graduate Student, Sigmund lab)**

American Heart Association Predoctoral Fellowship – Vascular Smooth Muscle RhoBTB1 in Hypertension, \$62,032

**Ashok Kumar (Postdoctoral Scholar, Rahmouni lab)**

American Heart Association Postdoctoral Fellowship – Neurogenic Mechanisms of Obesity-induced Hypertension, \$139,336

**Kyle Flippo (Postdoctoral Scholar, Potthoff lab)**

NARSAD (Brain & Behavior Research Foundation) Young Investigator Grant – Mapping a Novel Endocrine Circuit Regulating Alcohol Consumption, \$70,000

## Faculty grant awards

### Intramural Grant Awards to Neuroscience and Pharmacology Faculty

**Dawn Quelle (Professor)**

Mezhir Award – Targeting RB1 Pathway in NF1 tumors (Quelle & NF1/Sarcoma Team), \$50,000

**Kamal Rahmouni (Professor) & Songhai Chen (Associate Professor)**

Iowa Neuroscience Institute Accelerator Grant – Regulation of Breast Cancer Progression by the Central Nervous System, \$75,000

**Deniz Atasoy (Assistant Professor)**

FOEDRC Pilot and Feasibility Catalyst Award – Identifying the Defective Feeding Pathways in Hypoglycemia Unawareness, \$50,000

**Huxing Cui (Assistant Professor)**

FOEDRC Pilot and Feasibility Catalyst Award – Fine-mapping of Pancreatic Vagal Circuit for Systemic Glucose Homeostasis: The Role of Melanocortin Signaling, \$50,000

### Extramural Grant Awards to Neuroscience and Pharmacology Faculty

**Stefan Strack (Professor)**

R01 Administrative Supplement – Targeting Mitochondrial Fission for Neuroprotection in Diabetic Neuropathy, \$386,250

**Yuriy Usachev (Professor)**

R01 Administrative Supplement – Molecular Mechanisms and Functions of Mitochondrial  $\text{Ca}^{2+}$  Transport in Neurons, \$336,099

**Ted Abel (Professor)**

R01 Administrative Supplement – Molecular, Cellular and Circuit Effects of Sleep Deprivation on Hippocampal Function, \$122,504

**Kamal Rahmouni (Professor)**

AHA SFRN – (PI: Dale Abel, Training Director: Kamal Rahmouni) – Molecular Mechanisms and Functions of Mitochondrial  $\text{Ca}^{2+}$  Transport in Neurons, \$336,099

**Deniz Atasoy (Assistant Professor)**

Foundation for Prader-Willi Research (FPWR) – Role of MAGEL2 in Excitatory Synapse Function, \$64,800

# NEUROSCIENCE & PHARMACOLOGY

## NEW STUDENT WELCOME!

### Introducing Our New Students!!

Neuroscience & Pharmacology News welcomes *nine* predoctoral trainees who are *newly* affiliated with our department! Their names, former institutions, graduate degree programs, and thesis advisors are:



*Iltan Aklan*

*Yeditepe University, Turkey  
Pharmacology, Atasoy lab*

*Cierra Boyer*

*Briar Cliff University  
Pharmacology, rotating*



*Emese Chmielewski*

*Capital University  
Pharmacology, rotating*

*Connor Laule*

*University of Minnesota - Duluth,  
Pharmacology, rotating*



*Karley Monaghan*

*Iowa State University  
Pharmacology, rotating*

*Utsav Mukherjee*

*National Brain Research Centre, Gurgaon,  
India, Neuroscience, Abel lab*



*Tam Nguyen*

*University of California - Los Angeles,  
Pharmacology, rotating*

*Emily Walsh*

*Bradley University  
Neuroscience, Abel lab*



*Yuying Zhao*

*Shandong University  
Human Toxicology, Rahmouni lab*

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



Research Retreat 2019 Poster Session

### GIVING OPPORTUNITIES

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

[GIVING OPPORTUNITIES](#)

### CONTACT US

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

Kathleen Beardsworth  
Levitt Center for University  
Advancement  
One West Park Road  
Iowa City, IA 52242  
(800) 648-6973 | (319) 335-3305  
[kathy.beardsworth@uiowa.org](mailto:kathy.beardsworth@uiowa.org)

### OUR APPRECIATION

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

## UPCOMING EVENTS

### Visiting Speaker Seminar Jan 28

Frederic "Woody" Hopf, PhD  
Associate Adjunct Professor  
Neurology, Weill Institute for  
Neurosciences, University of  
California - San Francisco

### Visiting Speaker Seminar Feb 12

David Clark, MD, PhD  
Professor of Anesthesiology,  
Perioperative and Pain Medicine  
Palo Alto Veterans Affairs Health  
Care System, Stanford University

### Inclusive Excellence Seminar Feb 25

Jerrel "Jerry" L. Yakel, PhD  
Senior Investigator, Laboratory of  
Neurobiology, National Institute of  
Environmental Health Sciences/  
National Institutes of Health  
Research Triangle Park

### Visiting Speaker Seminar Mar 24

Fan Wang, PhD  
Professor of Neurobiology  
Morris N. Broad Distinguished  
Professor, Duke University School  
of Medicine

### Visiting Speaker Seminar Mar 31

Ulrich G. Steidl, MD, PhD  
Professor, Departments of Cell  
Biology and Medicine, The Diane  
and Arthur B. Belfer Faculty  
Scholar in Cancer Research  
Albert Einstein Cancer Center

### Visiting Speaker Seminar Apr 1

Rebecca P. Seal, PhD  
Associate Professor of  
Neurobiology, Pittsburgh Center  
for Pain Research  
University of Pittsburgh

### Visiting Speaker Seminar Apr 14

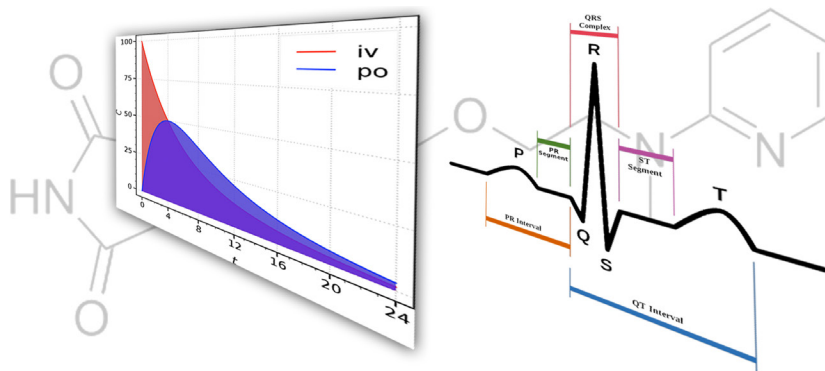
Elena H. Chartoff, PhD  
Associate Professor of Psychiatry  
Director, Neurobiology of  
Motivated Behavior Laboratory  
McLean Harvard Medical School

### Visiting Speaker Seminar Apr 22

Igor Spigelman, PhD  
Professor and Chair  
Section of Oral Biology  
School of Dentistry  
University of California -  
Los Angeles



Department of Neuroscience and  
Pharmacology  
2-471 Bowen Science Building  
51 Newton Road  
Iowa City, IA 52242-1109



### Contact us:

Department of Neuroscience & Pharmacology  
University of Iowa  
Roy J. and Lucille A.  
Carver College of Medicine  
51 Newton Road, 2-471 BSB  
Iowa City, IA 52242-1109

Phone: (319) 335-7965  
FAX: (319) 335-8930  
E-mail: [pharmacology@uiowa.edu](mailto:pharmacology@uiowa.edu)

<https://medicine.uiowa.edu/neuroscience-and-pharmacology/>

Please direct comments and inquiries to:  
John Koland, Editor  
Neuroscience & Pharmacology News  
319-335-6508  
[john-koland@uiowa.edu](mailto:john-koland@uiowa.edu)

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