

UNIVERSITY OF IOWA, COLLEGE OF MEDICINE CURRICULUM VITAE

Yuriy M. Usachev

October 23, 2024

I. EDUCATIONAL AND PROFESSIONAL HISTORY

A. Institutions Attended

Higher Education

09/82 - 06/89 B.S., M.S. (Physics-Optics and Spectroscopy) Kiev State University, Kiev, Ukraine

11/89 - 11/93 Ph.D. (Biology-Biophysics) International Center of Molecular Physiology, Bogomoletz Institute of Physiology, Kiev, Ukraine

Postgraduate Medical Education

02/92 - 06/92 Visiting Scientist Department of Neurophysiology, Max-Planck-Institute of Psychiatry, Munich, Germany

11/93 - 01/95 Research Scientist International Center of Molecular Physiology, Bogomoletz Institute of Physiology, Kiev, Ukraine

06/94 - 09/94 Postdoctoral Fellow The Physiological Laboratory, University of Cambridge, Cambridge, United Kingdom

04/95 - 03/02 Postdoctoral Fellow/Lecturer in Pharmacology Department of Pharmacology, University of Minnesota, Minneapolis, Minnesota

Certification and Licensure

None

B. Professional and Academic Positions

04/02 - 07/03 Research Assistant Professor Department of Pharmacology, University of Minnesota

08/03 - 06/09 Assistant Professor Department of Pharmacology, University of Iowa

07/09 – 06/15 Associate Professor Department of Pharmacology, University of Iowa

08/10 – 06/15 Associate Professor Department of Anesthesia, University of Iowa

07/15 – present Professor Departments of Neuroscience and Pharmacology (primary) and Department of Anesthesia, (secondary) University of Iowa

01/17 - present John P.Long Endowed Professor Department of Neuroscience and Pharmacology, University of Iowa

I. EDUCATIONAL AND PROFESSIONAL HISTORY (continued)

C. Honors, Awards, Recognitions, Outstanding Achievements

| | |
|---------------|---|
| 06/94 - 09/94 | Eastern European Award, Physiological Society, United Kingdom |
| 02/94 - 01/95 | Postdoctoral Fellowship, Physiological Society, United Kingdom |
| 08/95 - 07/97 | NIH training grant |
| 08/97 - 06/99 | Postdoctoral Fellowship, American Heart Association |
| 07/99 - 08/00 | NIH training grant |
| 11/9/2012 | Excellence in Medical Education Award, University of Iowa |
| 1/1/2017 | John P. Long Endowed Professor of Pharmacology, University of Iowa |
| 2/1/2022 | Director/MPI of Interdisciplinary Training Program in Pain Research (T32 NINDS/NIH) |

II. TEACHING

A. Teaching assignments on semester by semester basis

Classroom, seminar, teaching lab at the University of Minnesota

| | Course | Course number | Lecture hours |
|-------------|--|---------------|---------------|
| 2000 - 2003 | Pharmacology for Health Professionals (110-120 students) | PHCL 5100 | 2 hrs |
| 2000 - 2003 | Dental Pharmacology (70-80 students) | PHCL 5103 | 2 hrs |

Classroom, seminar, teaching lab at the University of Iowa

| | Course | Course number | Lecture hours |
|-------------------------------|---|---|---------------------------------|
| 2004 - present | Pain Mechanisms | 101:902 | 4 hrs |
| 2004 - 2005 | Principles in Molecular and Cell Biology Small group discussions | 156:201 | 4 hrs |
| 2006 - present | Pharmacology for Pharmacy Students I | 71:180 | 9 hrs |
| 2006 – 2008, 2023 | Foundations of Clinical Practice I: Case-Base Learning I for Medical Students | 050:162 CBL-I | 30 hrs |
| 2007, 2013 (Fall semester) | Advanced Problem Solving in Pharmacology | 71:250 | 4 hrs |
| 2007 - 2008 | Fundamental Neurobiology | 002:180 | 1.5 hrs |
| 2007 - 2009 | Neurophysiology | 002/132:181 | 1 hr |
| 2009 - present | Neurotransmitters * Course Director (2009-2020) | 071:137 | 3 hrs |
| 2009 - 2014 | Pharmacology for the Health Sciences | 71:105 (Med) 71:115 (RNA) 71:125 (PA) 71:302 (PhD) | 3 hrs lectures 2 hrs quizzes |
| 2010 - present | Pharmacology for Dental Students | 71:111 | 2 hrs |

II. TEACHING (continued)

A. Teaching assignments on semester by semester basis (continued)

| | |
|---|---------|
| 2016, fall semester PCOL:6015 – Topics in Neuropharmacology | 12 hrs |
| 2015-present, MOHD IV, Pharmacology for Medical Students | 3 hrs |
| 2015-present, PCOL: 6207, Ion Channels | 1.5 hrs |

B. Trainees Supervised

1. Graduate Students

1) *Robert Dallapiazza* (M.D./Ph.D. Program)

July - August, 2004, research rotation

Medical Science and Training Program (MSTP), University of Iowa,

2) *Man Su Kim* (Ph.D. Program)

October 04 - December 09, Department of Pharmacology, University of Iowa, two-year Predoctoral Fellowship from the AHA

Current Position: Professor, College of Pharmacy, Inje University, Republic of Korea

3) *Pat Houlihan* (Ph.D.) Program

September 2006 - August 2013

Department of Pharmacology, University of Iowa

Post-comprehensive exam student; Was appointed for 2007-09 to a T32 NIH training grant entitled "Predoctoral training in Pharmacological Sciences"; In December 2009 received a two-year Predoctoral Fellowship from the American Heart Association.

Current Position: Research Scientist at Janelia Farms, HHMI (Mentor Dr. Clapham).

4) *Andrew Slupe* (M.D./Ph.D. Program)

May 2008 - August 2008, research rotation

Medical Science and Training Program (MSTP), University of Iowa, research rotation

Andy's work will result in a publication, on which he will be a first co-author

5) *Mathew Yorek* (M.S.)

February 2009 - August of 2012

Department of Pharmacology, University of Iowa

6) *Jason Ulrich* (Ph.D., Pharmacology)

May 2009 - January 2012

Department of Pharmacology, University of Iowa

A very talented student who received a 3-year NRSA fellowship from the NIH/NIMH

Current Position: Associate Professor, Department of Neurology, Washington University School of Medicine, St. Louis, MO

7) *Erin Reinl* (Ph.D. Bioscience)

April 2011 - May 2011, research rotation

Bioscience Graduate, University of Iowa, research rotation

8) *Raeesa Gupte* (Ph.D., Pharmacology)

September - November of 2011

Research Rotation

II. TEACHING (continued)

B. Trainees Supervised (continued)

1. Graduate Students (continued)

9) *Charles Warwick* (Ph.D., Pharmacology)

December 2012 – June 2017

A very talented graduate student who received a 2-year position (2013-2015) on a T32 NIH training grant “Predoctoral Training in Pharmacological Sciences”; In July 2016 received a two-year award from the Pharmaceutical Research and Manufacturers of America Foundation (PhRMA).

Current Position: Research Assistant Professor, University of Pittsburgh

10) *Rachel Genova* (M.D./Ph.D. Program)

May 2013 - July 2013, research rotation

Medical Science and Training Program (MSTP), University of Iowa, research rotation

11) *Jacob Rysted* (Neuroscience Ph.D. Program)

December 2013 – December 2021

A very talented graduate student who obtained a 2-year predoctoral fellowship from the American Heart Association, 15PRE25310013

Defended his Ph.D. thesis in December of 2018

Current Position: Postdoctoral Fellow, University of Iowa

12) *Grant Walters* (Neuroscience Ph.D. Program)

November 2016 – December 2022

A very talented graduate student who received a position on a T32 NIH training grant “Predoctoral Training in Pharmacological Sciences”; Neuroscience Graduate Program, University of Iowa

Current Position: Postdoctoral Fellow, Vanderbilt University

13) *Alex Petrucci* (Neuroscience Ph.D. Program)

March 2017 - May 2017, research rotation

Neuroscience Graduate Program, University of Iowa, research rotation

14) *Alex Keyes* (Ph.D., Pharmacology),

August 2017 – June 2023

A very gifted graduate student who received a position (2018-present) on a T32 NIH training grant “Predoctoral Training in Pharmacological Sciences”;

Current Position: Postdoctoral Fellow, University of Iowa

15) *Camille Hanes* (Neuroscience Ph.D. Program)

August 2018 – November 2018, research rotation

Neuroscience Graduate Program, University of Iowa, research rotation

16) *Annette Klomp* (Neuroscience Ph.D. Program)

November 2018 – February 2019, research rotation

Neuroscience Graduate Program, University of Iowa, research rotation

17) *Tam Nguyen* (Pharmacology Ph.D. Program)

February 2020 – present, graduate student

II. II. **TEACHING (continued)**

T B. Trainees Supervised (continued)

18) Emese Chmielewski (Pharmacology Ph.D. Program)
February 2020 – May 2020, research rotation

2. Undergraduate Students and Summer Research Scholars

1) *Michelle M. Lemke*

5/02 - 7/03

Department of Pharmacology, University of Minnesota

2) *Hans Leonard*

5/04 - 5/05

Department of Pharmacology, University of Iowa

At present, DDS, Dental Practice, Des Moines, Iowa

3) *Christine Cho*

2/04 - 5/07

Department of Pharmacology, University of Iowa

At present, Medical Student at the Carver College of Medicine

University of Iowa

4) *Nathan M. Bortolini*

5/07 - 7/10

Department of Pharmacology, University of Iowa

Received a prestigious Amanda Skolnick Award

At present, Dentistry student at the University of Iowa

5) *Colorado Reed*

5/09 - 8/09

Department of Pharmacology, University of Iowa

6) *Alex Sieg*

MSTP Summer rotation student, worked on the project investigating genes controlled by NFAT

5/09 - 7/09

At present, graduate student of the Graduate Program of Chemistry and Chemical Biology at Harvard University, MA

7) *Rachel Adler*

9/09 - 5/11

Received a prestigious Amanda Skolnick Award

Department of Pharmacology, University of Iowa

8) *Sara Shankman*

9/09 - 5/10

Department of Pharmacology, University of Iowa

9) *Maria Kulikova*

6/10 - 7/10

Department of Pharmacology, University of Iowa

At present Ms. Kulikova is a student at the Massachusetts Institute of Technology, MA

II. TEACHING (continued)

B. Trainees Supervised (continued)

2. Undergraduate Students and Summer Research Scholars (continued)

10) *Kubat Rahatbek*

4/11 - 6/14

Department of Pharmacology, University of Iowa

Received a prestigious Amanda Skolnick Award

At present, Medical Resident at Family Practice Genesis Health Group

Davenport, Iowa

11) *Daniel Keefe*

2/14 - 3/14

Department of Pharmacology, University of Iowa

12) *Neal Patel*

5/14 - 12/15

Department of Pharmacology, University of Iowa

13) *Emily Anderson*

9/14 – 6/18; A very talented student who received twice a very prestigious ICRU (Iowa Center for Research by Undergraduates) to conduct research during the summers of

2016 and 2017, and also Amanda Scholnick Award

Department of Pharmacology, University of Iowa

At present, Medical Student at University of Iowa

14) *Hyesin (Grace) Han*

11/15 – 5/16

Department of Pharmacology, University of Iowa

15) *Nicholas Olson*

5/16 – 8/18

Department of Pharmacology, University of Iowa

16) *Judith Leon*

9/16 – 3/17

Department of Pharmacology, University of Iowa

17) *Anne Hao*

5/17 – 6/19

Department of Pharmacology, University of Iowa

18) *Maria Pattschull*

9/18 – 5/20

19) *Emily Bui*

5/19 – present

20) *Erin Skrzypek*

9/19 – 5/20

21) *Mallorie Lane*

3/20 – present

II. TEACHING (continued)

B. Trainees Supervised (continued)

2. Undergraduate Students and Summer Research Scholars (continued)

22) Kiley Christopher

2/22 – present

A very talented, minority student involved in research and supported by Iowa Biosciences Academy and NIH/T34 training grant/UI-MARC (Maximizing Access to Research Careers) program.

23) Isaac Leiner

9/22 – present

24) Cameron Moore

1/24 - present

3. Postdoctoral Trainees Supervised

1) *Yuliya M. Medvedeva*, Ph.D.

9/03 - 4/06

Department of Pharmacology, University of Iowa

Current Position: Postdoctoral Scholar in the Department of Neurology at the University of California at Irvine

2) *Katrin Schnizler*, Ph.D.

4/06 - 2/08

Department of Pharmacology, University of Iowa

Current Position: Senior Scientist, Bayer AG, Germany.

3) *Man-Su Kim*, Ph.D.

12/09 - 4/10

Man-Su was a very talented graduate student in the lab who defended his Ph.D. thesis in Pharmacology in December of 2009 and then worked as a postdoctoral scientist in my lab to finish his projects. Received a two-year Predoctoral Fellowship from the American Heart Association.

Current Position: Professor, College of Pharmacy, Inje University, Republic of Korea

4) *Leonid P. Shutov*, Ph.D.

2/07 - 12/15

Department of Pharmacology, University of Iowa

Current Position: Associate Research Scientist, University of Iowa

5) *Zhihong Lin*, Ph.D.

9/12 – 9/22

Department of Pharmacology, University of Iowa

Current Position: Research Specialist, Ohio State University

6) *Aswini Gnanasekaran*, Ph.D.

2/13 – 5/2017

Received a two-year postdoctoral fellowship from the American Heart Association: 7/1/14 - 6/30/16, POST20480080

Current Position: Research Associate Scientist, Institute of Biosciences and Technology at Texas A&M University

EACHING (continued)

- B. Trainees Supervised (continued)
Postdoctoral Trainees Supervised (continued)

7) *Charles Warwick*, Ph.D.
July 2017 – August 2018
Department of Pharmacology, University of Iowa
Current Position: Research Assistant Professor, University of Pittsburgh

8) *Kavita Solanki*, Ph.D.
May 2023 – present

9) *Athira Anirudhan*, Ph.D.
August 2023 – present

II. TEACHING (continued)

B. Trainees Supervised (continued)

4. Assistant/Associate Research Scientists and Visiting Scientists Supervised

1) *Katrin Schnizler*, Ph.D.

7/07 - 2/08

Department of Pharmacology, University of Iowa

At present Dr. Schnizler is a Senior Scientist at Bayer AG, Germany

2) *Leonid P. Shutov*, Ph.D.

1/16 - present

Department of Neuroscience and Pharmacology, University of Iowa

3) *Zhihong Lin*, Ph.D.

10/18 – 9/21

Department of Neuroscience and Pharmacology, University of Iowa

At present Dr. Lin is a Research Specialist at College of Pharmacy, Ohio State University

4) *Volodymyr Krotov*, Ph.D.

10/19-11/19

Visiting Scientist from Ukraine

At present, Research Fellow at University College London

5) *Artur Romanov*, Ph.D.

2/20 – 6/20

Visiting Scientist from Ukraine

6) *Yaroslav Andrianov*, M.S.

12/20 – 6/21

Visiting Scientist from Ukraine

5. Clinician Scientists Supervised

1) *Christina Spofford*, M.D., Ph.D.

8/10 – 6/14

Assistant Professor, Department of Anesthesia
University of Iowa

I served as a Co-Sponsor on her K08 NIH grant and helped her to develop a Ca²⁺ and Na⁺ imaging setup, to collect and troubleshoot preliminary data, and prepare and obtain a K08 NIH application, and help to carry out studies proposed in the application.

Current Position: Associate Professor, Department of Anesthesiology, Medical College of Wisconsin

2) *Sinyoung Kang*, M.D., Ph.D.

3/16 - present

Assistant Professor, Department of Anesthesia
University of Iowa

I serve as a collaborator on her new NIH R01 grant and helped her to develop her project to study the role of TRPA1 in postsurgical pain.

3) *Georgina Aldridge*, M.D., Ph.D.

3/18 - present

Assistant Professor, Department of Neurology
University of Iowa

I served as a Co-Sponsor on her K08 NIH grant and helped her with in vivo Ca²⁺ imaging experiments to study synuclein-induced effects on synaptic function.

II. TEACHING (continued)

6. Research Intern

Neal Patel, 1/16 - present
Department of Pharmacology, University of Iowa

Lorenzo Lones
8/16 - present
NIH R25 GM116686 trainee rotation

C. Other Contributions to Institutional Programs

05/04 – 07/04 Co-Director of Undergraduate Summer Research Seminar Series in Pharmacology

Institutional conferences, grand rounds, journal clubs

1. Faculty Presentation during the Joint Graduate School Recruitment Weekend, February 21, 2004. "Calcium Signaling and Control of Pain-conducting Pathways."
2. Pain Interest Group (Big PIG) Conference, June 4-5, 2004, Poster: "Mitochondrial Ca²⁺ cycling in sensory axons controls long-lasting synaptic activity induced by vanilloids."
3. Faculty Presentation to the students of Undergraduate Summer Research Seminar Series in Pharmacology, July 23, 2004. "Calcium Signaling in Pain-conducting Pathways."
4. Department of Pharmacology Faculty Seminar, October 5, 2004. "Regulation of presynaptic Ca²⁺ signaling and glutamate release in primary nociceptors: the role of mitochondria."
5. Topics in Pharmacology / Journal Club #71:215) Faculty Presentation, November 16, 2004. "Calcium Signaling and Neurotransmission of Pain: The Role of N-type Ca²⁺ Channels."
6. Department of Pharmacology Faculty Seminar, February 7, 2006. "Mitochondrial Ca²⁺ cycling in neuronal function: From synaptic plasticity to glutamate toxicity."
7. Department of Pharmacology Faculty Seminar, February 27, 2007. "Function and Modulation of the Vanilloid Receptor TRPV1."
8. Department of Pharmacology Faculty Seminar, September 16, 2008. "Activity-Dependent Plasticity in Sensory Neurons: From TRPV1 to NFAT."

C. Other Contributions to Institutional Programs (continued)

Teaching committees

2005 - present Exam Committee - Principles of Pharmacology (071:135)
2006 - present Exam Committee - Pain Mechanisms of Pain Transmission (101:277)

Student Counseling

National education related presentations

III. SCHOLARSHIP

A. Publications or Creative Works

Papers

1. **Usachev, Y.** and Mironov, S. (1989) Effect of Sr and Ba ions on Ca binding and transport in nerve cells. *Neurophysiology* 21:820-825.
2. Mironov, S. and **Usachev, Y.** (1990) Sr and Ba transients in isolated snail neurons studied with fura-2. The recovery from depolarization induced load and modulation of Ca release from intracellular stores. *Neuroscience Letters* 112:184-189.
3. **Usachev, Y.** and Mironov, S. (1991) Effect of caffeine on intracellular Ca regulation processes in isolated snail neurons. *Neurophysiology* 23:66-73.
4. Mironov, S. and **Usachev, Y.** (1991) Caffeine affects Ca uptake and Ca release from intracellular stores: fura-2 measurements in isolated snail neurons. *Neuroscience Letters* 123:200-202.
5. Mironov, S., **Usachev, Y.**, and Lux, H. (1993) Spatial and temporal control of intracellular Ca dynamics in chick DRG neurons. *Pflugers Archiv* 424:183-191.
6. **Usachev, Y.**, Shmigol, A., Pronchuk, N., Kostyuk, P., and Verkh ratsky, A. (1993) Caffeine-induced calcium release from internal stores in cultured rat sensory neurons. *Neuroscience* 57:845-859.
7. Shmigol, A., **Usachev, Y.**, Kirischuk, S., Kostyuk, P., and Verkh ratsky, A. (1994) Properties of the caffeine-sensitive Ca^{2+} stores in mammalian neurons. *Neurophysiology* 26:16-24.
8. **Usachev, Y.**, Shmigol, A., Pronchuk, N., and Verkh ratsky, A. (1994) The role of caffeine-sensitive calcium stores in modulation of calcium signals in rat sensory neurons. *Proceedings of Russian Academy of Sciences* 334:381-384.
9. **Usachev, Y.** and Verkh ratsky, A. (1995) IBMX induces calcium release from intracellular stores in rat sensory neurons. *Cell Calcium* 17:197-206.
10. **Usachev, Y.**, Kostyuk, P., and Verkh ratsky, A. (1995) IBMX affects potassium permeability in rat sensory neurons via pathways that are sensitive and insensitive to $[Ca^{2+}]_i$. *Pflugers Archiv* 430:420-428.
11. **Usachev, Y.M.**, Marchenko, S.M., and Sage, S.O. (1995) Cytosolic calcium concentration in resting and stimulated endothelium of excised intact rat aorta. *Journal of Physiology* 489:309-317.

III. SCHOLARSHIP (continued)

A. Publications or Creative Works

Papers (continued)

12. Werth, J.L., **Usachev, Y.M.**, and Thayer, S.A. (1996) Modulation of Ca^{2+} efflux from cultured rat DRG neurons. *Journal of Neuroscience* 16:1008-1015.
13. **Usachev, Y.M.** and Thayer, S.A. (1997) All-or-none Ca^{2+} release from intracellular stores triggered by Ca^{2+} influx through voltage-gated Ca^{2+} channels in rat sensory neurons. *Journal of Neuroscience* 17:7404-7414.
14. **Usachev, Y.M.** and Thayer, S.A. (1999) Ca^{2+} influx in resting rat sensory neurons that regulates and is regulated by ryanodine-sensitive Ca^{2+} stores. *Journal of Physiology* 519.1:115-130.
15. **Usachev, Y.M.** and Thayer, S.A. (1999) Controlling the urge for a Ca^{2+} surge: all-or-none calcium release in neurons (invited review). *BioEssays* 21:743-750, 1999.
16. **Usachev, Y.M.**, Khammanivong, A., Campbell, C., and Thayer, S.A. (2000) Particle-mediated gene transfer to rat neurons in primary culture. *Pflugers Archiv* 439:730-738.
17. Garcia, M.L., **Usachev, Y.M.**, Thayer, S.A., Strehler, E.E., and Windenbank, A.J. (2001) The plasma membrane ATPase plays a role in reducing Ca^{2+} mediated cytotoxicity in PC12 cells. *Journal of Neuroscience Research* 64:661-669.
18. **Usachev, Y.M.**, Toutenhoofd, S.L., Goellner, G.M., Strehler, E.E., and Thayer, S.A. (2001) Differentiation induces upregulation of plasma membrane Ca^{2+} -ATPase and concomitant increase in Ca^{2+} efflux in human neuroblastoma cell line IMR-32. *J. of Neurochemistry* 76:1756-1765.
19. **Usachev, Y.M.**, DeMarco, S.J., Campbell, C., Strehler, E.E., and Thayer, S.A. (2002) Bradykinin and ATP accelerate Ca^{2+} efflux from rat sensory neurons via protein kinase C and the plasma membrane Ca^{2+} pump isoform 4. *Neuron* 33:113-122.
20. Thayer, S.A., **Usachev, Y.M.**, and Pottorf, W.J. (2002) Modulating Ca^{2+} clearance from neurons (invited review). *Frontiers in Bioscience* 7:1255-1279.
21. **Usachev, Y.M.**, Marsh, A.J., Johanns, T.M., Lemke M.M., and Thayer, S.A. (2006) Activation of protein kinase C in sensory neurons accelerates Ca^{2+} uptake into the endoplasmic reticulum. *Journal of Neuroscience* 26 (1):311-318.
22. Jackson, J.G., **Usachev, Y.M.**, and Thayer, S.A. (2007) Bradykinin-induced NFAT-dependent transcription in rat dorsal root ganglion neurons. *Mol. Pharmacology* 72:303-310.
23. Lu, Y., Allen, M., Halt, A.R., Weisenhaus, M., Dallapiazza, R.F., Hall, D.D., **Usachev, Y.M.**, McKnight, S.G. and Hell, J.W. (2007) Age-dependent requirement of AKAP150-anchored PKA and GluR2-lacking AMPA receptors in LTP. *EMBO J.* 26:4879-4890.

III. SCHOLARSHIP (continued)

A. Publications or Creative Works

Papers (continued)

24. Usacheva M.N., Teichert M.C., **Usachev Y.M.**, Sievert C.E., Biel M.A. (2008) Interaction of the photobactericides methylene blue and toluidine blue with a fluorophore in *Pseudomonas Aeruginosa* cells. *Lasers in Surgery and Medicine* 40:55-61.
25. Medvedeva Y.V., Kim M.-S. and **Usachev Y.M.** (2008) Mechanisms of prolonged presynaptic Ca²⁺ signaling and glutamate release induced by TRPV1 activation in rat sensory neurons. *Journal of Neuroscience* 28(20):5295-5311.
*** This article was featured in the "This week in the journal" section. It was also highlighted in EurekAlert, an online global news service operated by AAAS (American Academy of Arts and Science), and selected for Faculty of 1000 Biology.
26. Schnizler K., Shutov L.P., Van Kanegan M.J., Merrill M.A., Nichols B., McKnight G.S., Strack S., Hell J.W. and **Usachev Y.M.** (2008) PKA anchoring via AKAP150 is essential for TRPV1 modulation by forskolin and prostaglandin E₂ in mouse sensory neurons. *Journal of Neuroscience* 28(19):4904-4917.
27. Lu Y., Zhang M., Lim I.A., Hall D.D., Allen M., Medvedeva Y., McKnight G.S., **Usachev Y.M.** and Hell J.W. (2008) AKAP150-Anchored PKA Actively Contributes to LTD. *Journal of Physiology* 586:4155-4164.
28. Dagda R.K., Merrill R.A., Cribbs J.T., Chen Y., Hell J.W., **Usachev Y.M.** and Strack S. (2008) The spinocerebellar ataxia 12 gene product and protein phosphatase 2A regulatory subunit Bbeta 2 antagonizes neuronal survival by promoting mitochondrial fission. *Journal of Biological Chemistry*, 283:36241-36248.
29. Medvedeva Y.V., Kim M.-S., Schnizler K. and **Usachev Y.M.** (2008) Functional tetrodotoxin-resistant Na⁺ channels are expressed presynaptically in rat DRG neurons. *Neuroscience*, 159:559-569.
30. Kim M.-S. and **Usachev Y.M.** (2009) Mitochondrial Ca²⁺ cycling facilitates activation of the transcription factor NFAT in sensory neurons. *Journal of Neuroscience* 29:12101-12114.
31. Kolker S.J., Walder R.Y., **Usachev Y.M.**, Hillman J., Boyle D.L., Firestein G. and Sluka K. (2010) ASIC3 expressed in Type B synoviocytes and chondrocytes modulates hyaluronan expression and release. *Annals of the Rheumatic Diseases* 69:903-909.
32. Jang J.H., Clark J.D., Li X., Yorek M.S., **Usachev Y.M.** and Brennan T.J. (2010) Nociceptive sensitization by complement C5a and C3a in mouse. *Pain* 148:343-352.

III. SCHOLARSHIP (continued)

A. Publications or Creative Works

Papers (continued)

33. Jenkins, M.A., Christel C.J., Jiao Y., Abiria J., Kim K.Y., **Usachev Y.M.**, Obermair G.J., Cobran R.J. and Lee A. (2010) Ca²⁺-dependent facilitation of Cav1.3 Ca²⁺ channels by densin and Ca²⁺/calmodulin-dependent protein kinase II. *Journal of Neuroscience* 30:5125-5135.
**This article was featured on the cover illustration.
34. Merrill R.A., Dagda R.K., Dickey A.S., Cribbs J.T., Green S.H., **Usachev Y.M.**, Strack S. (2011) Mechanism of neuroprotective remodeling by PKA/AKAP1. *PLoS Biology* 9:1-19 (e1000612).
35. Loo L., Shepherd A.J., Mickle A.D., Lorca R.A., Shutov L.P., **Usachev Y.M.** and Mohapatra D.P. (2012) The C-type natriuretic peptide induces thermal hyperalgesia through a noncanonical G $\beta\gamma$ -dependent modulation of TRPV1 channel. *Journal of Neuroscience* 32:11942-11955.
36. Ulrich, J.D., Kim M.-S., Houlihan P.R., L. P. Shutov, D. P. Mohapatra, S. Strack, and **Y. M. Usachev** (2012) Distinct activation properties of Ca²⁺/calcineurin-dependent transcription factors NFATc3 and NFATc4 in neurons. *Journal of Biological Chemistry* 287:37594-37609.
**This article was featured as "Paper of the week".
37. Shutov, L.P., Kim M.-S., Houlihan P.R., Medvedeva Y.V. and **Usachev Y.M.** (2013) Mitochondria and plasma membrane Ca²⁺-ATPase (PMCA) control presynaptic clearance in capsaicin-sensitive rat sensory neurons. *Journal of Physiology* 591:2443-2462.
**This article was cited by Pain Research Forum (Harvard University Neurodiscovery Center).
38. Sowers L.P., Loo L., Wu Y.M., Campbell E., Ulrich J.D., Wu S., Paemka L., Wassink T., Meyer K., Bing X., El-Shanti H., **Usachev Y.M.**, Ueno N., Manak R.J., Shepherd A.J., Ferguson P.J., Richerson G.B., Mohapatra D.P., Wemmie J.A., Bassuk A.G. (2013). PRICKLE2 defects link the non-canonical *Wnt* pathway to autism. *Molecular Psychiatry* 18:1077-1089.
39. Inagaki A., Frank A.C., **Usachev Y.M.**, Benveniste M. and Lee A. (2014) Pharmacological correction of gating defects in the voltage-gated Cav2.1 Ca²⁺ channel due to a familial hemiplegic migraine mutation. *Neuron* 81:91-102.
**This article was featured as Editor's choice in Pain Research Forum (Harvard University Neurodiscovery Center).
40. Weiyi Gong, Sandra J Kolker, **Usachev Y.M.**, Roxanne Y Walder, David Boyle, Gary S Firestein and Kathleen A Sluka. (2014) Acid-sensing ion channel 3 decreases phosphorylation of extracellular signal-regulated kinases and induces synoviocyte cell death by increasing intracellular calcium. *Arthritis Research&Therapy* 16:R121.

III. SCHOLARSHIP (continued)

A. Publications or Creative Works

Papers (continued)

41. Man Su Kim, Shutov L.P., Gnanasekaran A., Lin Z., Rysted J., Ulrich J.D., and **Usachev Y.M.** (2014) NGF facilitates activity of the transcription factor NFAT in neurons via the PI3K-Akt-GSK3 β pathway. *Journal of Biological Chemistry* 289:31349-31360.
42. Jiahui Wu, David L. Prole, Yi Shen, Zhihong Lin, Aswini Gnanasekaran, Yingjie Liu, Lidong Chen, Hang Zhou, S.R. Wayne Chen, **Yuriy M. Usachev**, Colin W. Taylor and Robert E. Campbell (2014) Red fluorescent genetically encoded Ca²⁺ indicators for mitochondria and endoplasmic reticulum. *The Biochemical Journal* 464:13-22.
** Featured article with a published comment
43. Shutov, L., Warwick, C., Shi, X., Gnanasekaran, A., Shepherd, A., Mohapatra, D., Woodruff, T., Clark, J., **Usachev, Y.** (2016) The complement system component C5a produces thermal hyperalgesia via macrophage-to-nociceptor signaling that requires NGF and TRPV1. *Journal of Neuroscience*. 36(18):5055-5070.
**This article was selected as "Paper of the week" by Pain Research Forum (<http://www.painresearchforum.org/>) and was recommended by Faculty1000 as being of special significance.
44. Daisuke Sugiyama, Sinyoung Kang, Nicholas Arpey, Preeyaphan Arunakul, **Yuriy M. Usachev**, Timothy J. Brennan (2017) Hydrogen peroxide (H₂O₂) induces muscle pain via TRPA1 receptors. *Anesthesiology*, 127(4): 695-708.
45. Andrew J. Shepherd, Aaron D. Mickle, Suraj Kadunganattil, Judith P. Golden, Satya M. Tadinada, Manouela V. Valtcheva, Sanjay Jain, Pradipta R. Ray, **Yuriy M. Usachev**, Justin L. Grobe, Theodore J. Price, Robert W. Gereau IV, and Durga P. Mohapatra (2018) Angiotensin II triggers peripheral macrophage-to-sensory neuron crosstalk to elicit pain. *Journal of Neuroscience*. 38 (32): 7032-7057.
46. Flippo, K. H., Gnanasekaran, A., Perkins, G. A., Ahmad, A., Merrill, R.A., Dickey, A.S., Taylor, S.S., McKnight, G.S., Chauhan, A.K., **Usachev, Y.M.***, Strack, S.* (2018) AKAP1 protects from cerebral ischemic stroke by inhibiting Drp1-dependent mitochondrial fission. *Journal of Neuroscience*, 38: 8233-8242.
*** Corresponding authors**
** Featured as a paper of the week in the *Journal of Neuroscience*.
47. Hamilton J., Brustovetsky T., Jacob E. Rysted J.E., Lin Z., **Usachev Y.U.**, and Brustovetsky N. (2018) Deletion of mitochondrial calcium uniporter incompletely inhibits calcium uptake and induction of the permeability transition pore in brain mitochondria. *Journal of Biological Chemistry*, 293: 15652-15663.
48. Jeremy A. Sandgren, Guorui Deng, Danny W. Linggonegoro, Sabrina M. Scroggins, Katherine J. Perschbacher, Anand R. Nair, Taryn E. Nishimura, Shao Y. Zhang, Larry N. Agbor, Jing Wu, Henry L. Keen, Meghan C. Naber, Nicole A. Pearson, Kathy A. Zimmerman, Robert M. Weiss, Noelle C. Bowdler, **Yuriy M. Usachev**, Donna A. Santillan, Matthew J. Potthoff, Gary L. Pierce, Katherine N. Gibson-Corley, Curt D. Sigmund, Mark K. Santillan, and Justin L. Grobe (2019) Arginine vasopressin infusion is sufficient to model preeclampsia in mice. *Journal of Clinical Investigation Insight*, published online on Oct.4, 2018.

III. SCHOLARSHIP (continued)

A. Publications or Creative Works

Papers (continued)

49. Warwick C.A., Shutov L.P., Shepherd A.J., Mohapatra D.P. and **Usachev Y.M.:** (2019) Mechanisms underlying mechanical sensitization induced by complement C5a: the roles of macrophages, TRPV1 and CGRP receptors. *Pain*, 160: 702-711.
50. Deng-Fu Guo, Zhihong Lin, Yuanming Wu, Charles Searby, Daniel R. Thedens, George B. Richerson, **Yuriy M. Usachev**, Justin L. Grobe, Val C. Sheffield and Kamal Rahmouni (2019) The BBSome in POMC and AgRP Neurons is Necessary for Body Weight Regulation and Sorting of Metabolic Receptors. *Diabetes*, 68 (8): 1591-1603.
51. Liu, Guanghao; Thangavel, Ramasamy; Rysted, Jacob; Kim, Yohan; Francis, Meghan; Adams, Eric; Lin, Zhihong; Taugher, Rebecca; Wemmie, John; **Usachev, Yuriy;** Lee, Gloria (2019) Loss of tau and Fyn reduces compensatory effects of MAP2 for tau and reveals a Fyn-independent effect of tau on calcium. *Journal of Neuroscience Research* 97 (11): 1393-1413.
52. Belan, P.V., **Usachev Y.M.**, Duzhy D.E., Ivanova S.Y., Tarasenko, A.N., and Voitenko N.V. (2019) Role of T-type Ca²⁺ channels in painful diabetic neuropathy (invited review) *Neurophysiology* 51: 455-461.
53. Kyle Flippo, Zhihong Lin, Audrey Dickey, Xinchang Zhou, Nirav Dhanesha, Ronald Merrill, Robert Meller, Roger Simon, Anil Chauhan, **Yuriy Usachev***, and Stefan Strack* (2020) Deletion of a neuronal Drp1 activator protects against cerebral ischemia. *Journal of Neuroscience* 40(15): 3119-3129.
* **Corresponding authors**
54. Sharon O. Jensen-Cody, Kyle H. Flippo, Kristin E. Claflin, Yavuz Yavuz, Sarah A. Sapouckey, Grant C. Walters, **Yuriy M. Usachev**, Deniz Atasoy, Matthew P. Gillum, and Matthew J. Potthoff (2020) FGF21 Signals to Glutamatergic Neurons in the Ventromedial Hypothalamus to Suppress Carbohydrate Intake. *Cell Metabolism* 32 (2): 273-286. PMID: 32640184.
55. Rysted J.E., Lin Z., Walters G.C., Rauckhorst A.J., Noterman M., Liu G., Taylor E.B., Strack S. and **Usachev Y.M.** (2021) Distinct Properties of Ca²⁺ Efflux from Brain, Heart and Liver Mitochondria: The Effects of Na⁺, Li⁺ and the Mitochondrial Na⁺/Ca²⁺ Exchange Inhibitor CGP37157. *Cell Calcium* 96: doi: 10.1016/j.ceca.2021.102382. PMID: 33684833.
56. Keyes A.L., Kim, Y.C., Bosch P.J., **Usachev Y.M.*** and Aldridge G.M.* (2021) Stay or Go? Neuronal Activity in Medial Frontal Cortex During a Voluntary Tactile Preference Task in Head-Fixed Mice. *Cell Calcium* 96: doi: 10.1016/j.ceca.2021.102388. PMID: 33740531.
* **Corresponding authors**
57. Warwick C.A., Keyes A.L., Woodruff T.M. and **Usachev Y.M. (2021)** The Complement Cascade in the Regulation of Neuroinflammation, Nociceptive Sensitization and Pain. *Journal of Biological Chemistry* 297(3) . doi: 10.1016/j.jbc.2021.101085. PMID: 34411562.
58. Walters G.S., **Usachev Y.M.** (2022). MCU (mitochondrial Ca²⁺ uniporter) makes the calcium go round. *Journal of Biological Chemistry* 298(2): doi:10.1016/j.jbc.2022.101604. PMID: 35051417.
59. Klomp A, Omichi R, Iwasa Y, Smith RJ, **Usachev YM**, Russo AF, Narayanan NS, Lee A. (2022) The voltage-gated Ca²⁺ channel subunit $\alpha_2\delta$ -4 regulates locomotor behavior and sensorimotor gating in mice. *PLoS One*. 2022 Mar 30;17(3):e0263197. doi: 10.1371/journal.pone.0263197. eCollection 2022. PMID: 3535383

60. Guo D.F., Merrill R.A., Qian L., Hsu Y., Zhang Q., Lin.Z., Thedens D.R., **Usachev Y.M.**, Grumbach I., Sheffield V.C., Strack S. and Rahmouni K. (2022). The BBSome regulates mitochondria dynamics and function. *Molecular Metabolism*, doi: 10.1016/j.molmet.2022.101654.PMID: 3651320.
61. Walters G.S., **Usachev Y.M.** (2023). Mitochondrial Calcium Cycling in Neuronal Function and Neurodegeneration. *Frontiers in Cell and Developmental Biology*,. doi: 10.3389/fcell.2023.1094356 .
62. Ghatge, M., Nayak M.K., Flora G.D., Kumskova M., Jain A., Patel, R.B., Lin Z., **Usachev Y.M.**, Chauhan A.K. (2023) Mitochondrial Calcium Uniporter B deletion inhibits platelet function and reduces susceptibility to arterial thrombosis. *Journal of Thrombosis and Haemostasis*. doi: 10.1016/j.jtha.2023.04.002. PMID: 37061131
63. Yaroslav E. Andrianov, Alex L. Keyes, Charles A. Warwick, Leonid P. Shutov, **Alexander G. Bassuk**, Nana Voitenko, Pavel Belan and **Yuriy M. Usachev** (2024) Activation of TRPA1 and TRPM3 triggers Ca²⁺ waves in central terminals of sensory neurons and facilitates synaptic activity in the spinal dorsal horn. *The Journal of Physiology* (in minor revision).

Books and/or Chapters

1. **Usachev Y.M.** Chapter: "Mitochondrial Ca²⁺ transport in the control of neuronal plasticity functions: molecular and cellular mechanisms" (2015) In Volume 1 of the Wiley Series in Neuropharmacology: The Functions, Disease-Related Dysfunctions, and Therapeutic Targeting of Neuronal Mitochondria, pp. 103-129. Wiley & Sons, Hoboken, New Jersey.
2. Warwick C.A. and **Usachev Y.M.** Chapter: "Culture, transfection and immunocytochemical analysis of primary macrophages" (2017) in "Signal Transduction Immunohistochemistry", pp. 161-173. Springer Nature, New York, NY.
3. Strack S. and **Usachev Y.M.** Book: "Techniques to Investigate Neuronal Mitochondrial Function" (2017), Springer Nature, New York, NY.
4. Rysted J.E., Lin Z. and **Usachev Y.M.** Chapter: "Techniques for Simultaneous Mitochondrial and Cytosolic Ca²⁺ Imaging in Neurons" (2017) in "Techniques to Investigate Neuronal Mitochondrial Function", pp. 151-178. Springer Nature, New York, NY.

III. SCHOLARSHIP (continued)

C. Grants Received

| Federal | Period | Total Direct Costs |
|---|---------------|---------------------------|
| R01 NS125884, NIH/NINDS "The mitochondrial Ca ²⁺ uniporter in the regulation of neural activity and susceptibility to seizures" (Y.M. Usachev, P.I., 30% effort) | 12/21 – 11/26 | \$1,453,580 |
| R01 NS127428, NIH/NINDS "Novel Circuits and Mechanisms of Descending Pain Modulation" (Y.M. Usachev, corresponding MPI, 20% effort) | 12/22-11/27 | \$1,770,037 |
| T32 NS045549, NIH/NINDS "Interdisciplinary Training in Pain Research" (Y.M. Usachev, MPI, corresponding) | 2/22 – 1/27 | \$1,342,440 |
| R01 NS096246, NIH/NINDS "Molecular mechanisms and functions of mitochondrial Ca ²⁺ transport in neurons" (Y.M. Usachev, P.I., 30% effort) | 9/16 – 8/21 | \$1,289,279 |
| R01 NS096246S, NIH/NINDS "Molecular mechanisms and functions of mitochondrial Ca ²⁺ transport in neurons" Administrative Supplement to study Alzheimer's disease (Y.M. Usachev, P.I., 10% effort) | 8/19 – 7/20 | \$227,000 |
| R01 DK116624, NIH/NIDDK, "Targeting Mitochondrial Fission for Neuroprotection in Diabetic Neuropathy" (MPI: Strack, Usachev (20% effort), Yorek) | 6/18 – 5/22 | \$1,141,983 |
| R01 NS113189, NIH/NINDS The Role of the Complement System in Spinal Mechanisms of Chronic Pain (Y.M. Usachev, P.I., 20% effort) | 6/19 – 5/25 | \$1,423,368 |
| R01 NS113189S, NIH/NINDS The Role of the Complement System in Spinal Mechanisms of Chronic Pain AD/ADRD supplement (Y.M. Usachev, P.I., 20% effort) | 6/22 – 5/23 | \$250,000 |
| R01 NS087068, NIH/NINDS "Mitochondrial fission and fusion (MFF)-dependent mechanisms in neuronal toxicity" (Y.M. Usachev, P.I., 35% effort) | 3/14 - 2/18 | \$875,000 |

| | | |
|--|---------------|-------------|
| R21 NS092851, NIH/NINDS “The Role of Ca-dependent Transcription Factor NFAT in Pain Control” (Y.M. Usachev, P.I., 15% effort) | 7/15 - 6/17 | \$250,000 |
| R21 NS087908, NIH/NINDS “Outer Mitochondrial PKA and PP2A in neurodevelopment and plasticity” (S. Strack, P.I., Y. Usachev, Co-P.I., 5% effort) | 8/14 - 6/16 | \$250,000 |
| R01 NS072432, NIH/NINDS “Regulation of TRPV1 and Nociceptor Sensitization by the Complement System” (Y.M. Usachev, P.I., 30% effort) | 5/11 - 4/15 | \$928,814 |
| R01 NS054614, NIH/NINDS- “Mitochondrial Calcium cycling in neuronal function” (Y.M. Usachev, P.I., 35% effort) | 7/06 - 6/11 | \$1,012,500 |
| R01 NS035563 - “Postsynaptic Signaling Pathways”, NIH/NINDS (J. Hell, P.I., Y. Usachev, Co-P.I., 10% effort) | 7/06 - 6/11 | \$1,125,000 |
| R01 NS056244, NIH/NINDS - “Kinase/Phosphatase-mediated Mitochondrial Restructuring in Neuroprotection” (S. Strack, P.I., Y. Usachev, Co-P.I., 10% effort) | 4/07 - 3/12 | \$1,093,750 |
| K08 GM099081, NIH/NIGMS “Voltage-Gated Sodium Channels in Acute Post Laminectomy Pain” (C. Spofford, P.I., Y. Usachev, Co-sponsor) | 10/11 - 8/15 | \$453,800 |
| F31 MH081420, NIH/NIMH “Pyk2 regulation of NR2B surface expression and Tyr1472 phosphorylation” (J. Ulrich, P.I., Y. Usachev, Mentor) | 8/07 - 8/10 | \$79,603 |
| R01 NS085164, NIH/NINDS “Synaptic Signals that Drive the Long-term Maintenance of Homeostatic Neuroplasticity” (A. Frank, P.I., Y. Usachev, Collaborator, 5% salary support) | 12/16 - 11/21 | \$225,000 |
| R01 GM124055, NIH/NIGMS “TRPA1 in Postoperative Pain” (MPI: Brennan and Kang; Co-PI: Usachev with 5% salary support) | 9/17 - 12/19 | \$225,000 |

K08 NS109287, NIH/NINDS 9/19 – 6/23
 “Cortical Mechanisms of Lewy Body Dementia”
 PI: G.Aldridge; Co-Sponsor: Usachev

| Others | Period | Total Direct Costs |
|---|---------------|---------------------------|
| American Epilepsy Society “The Role of Mitochondrial Ca ²⁺ Uniporter (MCU) in Neuronal Excitability and Epilepsy” (Y.M. Usachev, P.I.) | 6/16 - 5/17 | \$20,000 |
| 0535240N American Heart Association National Scientist Development Grant - “Function and Modulation of Mitochondrial Calcium Cycling in Neurons” (Y.M. Usachev, P.I.) *After 12.5 months of funding, the remainder of the funds was relinquished due to an overlap with another grant (R01 NS054614) | 7/05 - 6/09 | \$234,000 |
| American Heart Association Heartland Affiliate, Beginning Grant in Aid (Y.M. Usachev, P.I.) * These funds have been relinquished due to an overlap with another grant | 7/05 - 6/07 | \$128,700 |
| Fraternal Order of Eagles Diabetes Research Center (Y.M. Usachev, P.I.) - “Targeting mitochondrial fission and fusion (MFF) for neuroprotection in peripheral diabetic neuropathy (PDN)” | 8/12 - 7/14 | \$100,000 |
| 08PRE0815630G, American Heart Association, Midwest Affiliate, Predoctoral Fellowship - “Ca ²⁺ /Calcineurin-Dependent Transcription Factor NFAT Regulation by Protein Kinases and Neurotrophins in Sensory Neurons” (Man-Su Kim, P.I.; Y.M. Usachev, Mentor) | 7/08 - 6/10 | \$52,000 |

III. SCHOLARSHIP (continued)

C. Grants Received (continued)

| Others (continued) | Period | Total Direct Costs |
|--|---------------|---------------------------|
| 10PRE2660008, American Heart Association, Midwest Affiliate, Predoctoral Fellowship - "Phosphoregulation of Mitochondrial Architecture and Glutamate Toxicity in Hippocampal Neurons" (Patrick Houlihan, P.I., Y.M. Usachev, Mentor) | 1/10 - 12/11 | \$52,000 |
| 14POST20480080, American Heart Association, Midwest Affiliate, Postdoctoral Fellowship - "The Role of Mitochondrial Fission and Fusion (MFF) in Glutamate-Induced Ca ²⁺ Dereglulation and Toxicity in Neurons" (Aswini Gnanasekaran P.I., Y.M. Usachev, Mentor) | 7/14 - 6/16 | \$90,772 |
| Pharmaceutical Research & Manufacturers of America Foundation (PhRMA) "The Role of the Complement System in Neuropathic Pain" (Charles Warwick, P.I., Y.M. Usachev, Mentor) | 7/16 - 6/18 | \$40,000 |
| 15PRE25310013, American Heart Association, Midwest Affiliate, Predoctoral Fellowship - "Phosphoregulation of Mitochondrial Architecture and Glutamate Toxicity in Hippocampal Neurons" (Jacob Rysted, P.I., Y.M. Usachev, Mentor) | 7/15 - 6/17 | \$52,000 |
| | | Total Direct Costs |
| College of Medicine | Period | |
| Univ. of Iowa Carver College of Medicine Pilot Grant - "Presynaptic Ca ²⁺ signaling and modulation of transmitter release induced by VR1 activation in primary nociceptors" (Y.M. Usachev, P.I.) | 2/04 - 1/06 | \$10,000 |
| Univ. of Iowa Carver College of Medicine Pilot Grant - "Regulation of the transcriptional factor NFAT in sensory neurons" (Y.M. Usachev, P.I.) | 2/06 - 1/08 | \$30,000 |
| Univ. of Iowa Carver College of Medicine Pilot Grant - "The Role of AKAP150 in the Regulation of Postsynaptic Ca ²⁺ signaling" (Y.M. Usachev, P.I.) | 2/11 - 1/13 | \$30,000 |

III. SCHOLARSHIP (continued)

C. Grants Received (continued)

| | Period | Total Direct Costs |
|--|---------------|---------------------------|
| College of Medicine (continued) | | |
| Univ. of Iowa Carver College of Medicine Collaborative Pilot Grant - "The role of Ca ²⁺ -dependent Transcription Factor NFAT in Chronic Pain" (Y.M. Usachev, P.I.) | 2/14 - 1/16 | \$45,000 |
| Iowa Neuroscience Institute (INI) Program of Excellence "Mitochondrial dynamics and calcium cycling in neuronal injury, excitability, and plasticity" (MPI: Strack, Usachev, Buchanan and Riedl) | 5/17-4/22 | \$750,000 |
| University of Iowa | Period | Total Direct Costs |
| Univ. of Iowa BSFP - "Presynaptic Calcium Signaling and Regulation of Transmitter Release in Primary Nociceptors" (Y.M. Usachev, P.I.). | 1/04 - 12/04 | \$30,000 |
| Univ. of Iowa BSFP – "Regulation of the Transcription Factor NFAT in Sensory Neurons" (Y.M. Usachev, P.I.) | 2/06 - 6/07 | \$30,000 |
| * This grant has been relinquished due to an overlap with another grant | | |

III. SCHOLARSHIP (continued)

D. Invited Lectures

1. December 1995: The Physiological Society Meeting, Birmingham, UK: IBMX induces Ca^{2+} release from internal stores and affects K^+ channels in isolated rat sensory neurons.
2. June 24, 1998; Aurora Biosciences Corporation (San Diego, CA), "The Interplay Between Plasma Membrane and Ca^{2+} stores in the Generation of Calcium Signals."
3. June 29, 1998: Synaptic Pharmaceutical Corporation (Paramus, NJ), "The Interplay Between Plasma Membrane and Ca^{2+} stores in the Generation of Calcium Signals."
4. October 2001: University of Minnesota, College of Pharmacy (Minneapolis, MN), "Modulation of Ca^{2+} Signaling in Sensory Neurons."
5. June 2002: Ohio State University (Columbus, OH), "Modulation of Ca^{2+} Signaling in Sensory Neurons."
6. June 2002: Virginia Commonwealth University, Medical Center (Richmond, VA), "Modulation of Ca^{2+} Signaling in Sensory Neurons."
7. July 2002: University of Iowa, College of Medicine (Iowa City, IA), "Modulation of Ca^{2+} Signaling in Sensory Neurons."
8. April 26, 2006: Spring Pain Research Conference, Cayman Islands, "Presynaptic Ca^{2+} signaling and regulation of glutamate release in primary nociceptors."
9. May 4, 2006: American Pain Society 25th Annual Scientific Meeting, San Antonio, Texas, " Ca^{2+} signaling and activity-dependent plasticity in sensory neurons."
10. June 3, 2007: Structural and Functional Organization of the Synapse, Iowa City, Iowa, "Presynaptic Ca^{2+} Signaling at Sensory Synapse."
11. June 7, 2007: Structural and Functional Organization of the Synapse, Iowa City, Iowa, "Synaptic Ca^{2+} Dynamics."
12. February 19, 2008: Columbia University, Department of Physiology and Cellular Biophysics (New York, NY), "Activity-Dependent Plasticity in Sensory Neurons: Molecules and Mechanisms".
13. May 14, 2008: University of Washington, Department of Physiology and Biophysics (Seattle, WA), "Activity-Dependent Plasticity in Sensory Neurons: From TRPV1 to NFAT".
14. August 20, 2008: 12th World Congress on Pain, Glasgow, Scotland, " Ca^{2+} Signaling in Primary Nociceptors: Mechanisms and Modulation by Inflammation and Nerve Injury".
15. April 10, 2009: University of Minnesota, Department of Pharmacology (Minneapolis, MN), "TRPV1- and TRPM8-mediated Signaling in Sensory Neurons: Molecules and Mechanisms".
16. September 15, 2009: University of Iowa Neuroscience Graduate Program, "Regulation and Function of TRPV1 and TRPM8 Channels in Sensory Neurons".
17. May 17, 2011: University of Pittsburgh Pain Center, "Mechanisms of short-term and long-term nociceptive plasticity: from TRPV1 to NFAT".
18. January 24, 2011: 44th Annual Winter Conference on Brain Research, Keystone, Colorado, "Regulation of TRPV1 function and heat sensitization by AKAP5".
19. November 4, 2011: Iowa Microscopy Society Meeting, Iowa, "Exploring neuronal function with cellular and subcellular fluorescent microscopy in real time: Ca^{2+} imaging and beyond".
20. August 17, 2012. Bioscience Recruitment: "Studying Molecular and Cellular Mechanisms of Chronic Pain".

III. SCHOLARSHIP (continued)

D. Invited Lectures (continued)

21. July 12, 2013: University of Iowa Mitochondria Interest Group, "Molecules and Functions of Mitochondrial Ca²⁺ Cycling in Peripheral and Central Neurons".
22. July 30, 2013: A.A. Bogomoletz Institute of Physiology, Kiev, Ukraine, "Molecules and Functions of Mitochondrial Ca²⁺ Cycling in Neurons"
23. August, 21, 2013: Fraternal Order of Eagles Diabetes Research Center, University of Iowa "Targeting Mitochondrial Fission and Fusion Processes for Neuroprotection in Peripheral Diabetic Neuropathy".
24. September 20, 2013: R&D Systems, Minneapolis, MN: "Novel Mitochondrial Proteins in Neuronal Plasticity and Neurodegeneration".
25. January 28, 2014: 47th Annual Winter Conference on Brain Research, Steamboat Springs, Colorado, "Mitochondrial ion channels and transporters in the regulation of synaptic plasticity and neuronal survival". Session chair and presenter.
26. May 3, 2014: American Pain Society 33^d Annual Scientific Meeting, Tampa, Florida, "Novel modulators and signaling mechanisms in inflammatory pain" Session co-Chair and presenter. (**This presentation was highlighted by Pain Research Forum that is run by the Harvard University Neurodiscovery Center).
27. May 8, 2014: University of Pharmacology Retreat, IA: "Distinct Functions of Mitochondrial Uniporters MCU and MCUb in Neurons"
28. May 22, 2014: Indiana University School of Medicine and Stark Neuroscience Institute, Indianapolis, IN: "Mitochondrial Ca²⁺ Signaling in Nociceptor Plasticity and Neuronal Toxicity: New Molecules and Functions".
29. June 27, 2014: University of Pittsburgh Pain Center, "The Roles of the Complement System and the Transcription Factor NFAT in Nociceptor plasticity and Pain Control".
30. January 30, 2015: University of Iowa, Department of Biology, "Mitochondrial Ca²⁺ Signaling in Neuronal Plasticity and Glutamate Toxicity".
31. April 8, 2016: University of Iowa, Mitochondrial Interest Group, "Shuttle Service for Ca²⁺ in Neuronal Mitochondria: Molecules and unctions"
32. February 6, 2017: U.S. Department of Veterans Affairs, Center for the Prevention and Treatment of Visual Loss, Iowa City. "Mitochondrial Ca²⁺ Transport in Neuronal Function: Implications for Seizures, Stroke and Pain".
33. May 16, 2017: Spring Pain meeting 2017 (pre American Pain Society annual meeting), Pittsburgh, PA, "Macrophage-nociceptor crosstalk in chronic pain and its regulation by the complement system".
34. June 7, 2017: USN international meeting, Kiev, Ukraine, "The role of mitochondrial Ca²⁺ uniporter (MCU) in neuronal Ca²⁺ signaling, ischemic stroke and epilepsy". *Keynote Lecture.*
35. November 12, 2018: Distinguished Lecture Series Sponsored by the University of Iowa Obesity Research and Education Initiative and the Fraternal Order of Eagles Diabetes Research Center. "Mitochondrial Ca²⁺ Uniporters MCU and MCUb in Neuronal Ca²⁺ Signaling, Seizures and Stroke".
36. April 8, 2019: University of Texas Southwestern Medical Center: "The Mitochondrial Ca²⁺ Uniporters MCU and MCUb in the Regulation of Neuronal Ca²⁺ Signaling and Susceptibility to Seizures and Stroke".

III. SCHOLARSHIP (continued)

D. Invited Lectures (continued)

37. September 20, 2019: University of Cincinnati Pain Center: "The Complement System and Neuro-Immune Interaction in Pain Regulation".
38. April 16, 2020: Duke University, Center for Translational Pain Medicine, Durham NC: "Peripheral and Central Mechanisms of Neuro-Immune Interaction in the Regulation of Nociceptor Plasticity and Pain" (cancelled, to be re-scheduled).
39. April 30, 2020: Northwestern University, Chicago, IL: "Peripheral and Central Mechanisms of Neuro-Immune Interaction in the Regulation of Nociceptor Plasticity and Pain" .
40. January 8, 2021: MD Anderson Cancer Center, The University of Texas: Pain Research Consortium Inaugural Seminar: "Neuro-Immune Interaction and Mitochondrial in Pain Control".
41. July 12, 2021: Distinguished Lecture Series Sponsored by the University of Iowa Obesity Research and Education Initiative and the Fraternal Order of Eagles Diabetes Research Center. "The Complement Cascade in the Regulation of Neuro-Immune Interaction, Peripheral Neuropathies and Pain".
42. October 12, 2021: Cornell University, Burke Neurological Institute. Title: "Mitochondrial Dynamics and Ca²⁺ Transport in the Regulation of Susceptibility to Epilepsy and Stroke".
43. March 7, 2022: Carver College of Medicine Spotlight on Current and Future Research: "The Complement System in the Regulation of Chronic Pain".
44. October 17-19, 2023: Global Brain Network Meeting by NIH/FIC (Fogarty International Center) Washington DC: "The complement cascade in neuro-immune interaction and chronic pain".
45. December 20, 2023: University of Minnesota, Pain Interest Group: "The complement cascade in neuro-immune interaction and chronic pain".
46. March 20, 2024: PLUS: Pain Leaders of the US: Training in Pain Research at the University of Iowa"

IV. SERVICE

A. Offices Held in Professional Organizations (least to most recent)

Editorial Board:

2015-Present: **Journal of Biological Chemistry**

2021 – Present: **Frontiers in Physiology**

2022- Present: Reviewing Editor, **Frontiers in Pain Research**

Editorships

Reviewer:

Journal of Neuroscience, PNAS, Nature Communications, Brain, British Journal of Pharmacology, Pain, Anesthesiology, Biochemical Journal, Biochimica et Biophysica Acta (BBA), Biological Psychiatry, Brain Research, Cell Calcium, CMH Protocols, Diabetes, Frontiers in Cellular Neuroscience, Frontiers in Physiology, Journal of Biological Chemistry, Journal of Comparative Neurology, Journal of Neurochemistry, Journal of Pain, Journal of Pharmacology and Experimental Therapeutics (JPET), Journal of Physiology, Molecular Pain, Neurobiology of Pain, Neuropharmacology, Neuroscience, Pflugers Archiv-European Journal of Physiology, PLoS One, Science Signaling, Scientific Reports, Trends in Neurosciences.

Committees:

National and International

2013-2016: Society for Neuroscience (SFN) Program Committee

2015-2016: SFN Subcommittee *Chair* (Theme D: Sensory Systems)

**The committee is responsible for developing programs for annual meetings of the Society for Neuroscience. The annual meetings are the most important annual events in the life of the Society that gather ~150,000-20,000 neuroscientists from around the World. The committee is responsible for selecting special lectures, symposia and minisymposia, as well as for sessioning the abstracts and planning educational and social events during the annual meetings. The annual meetings of the Society play key role in defining strategic goals and future directions of the Neuroscience as a field. As Subcommittee Chair, I played active role in organizing special lectures, symposia, mini- and nano-symposia and scheduling poster sessions and other meeting events. Another important undertaking during my tenure on the Committee was re-structuring of Themes and Topics of the SFN meetings to better represent the current strategic directions and trends in the field of Neuroscience. I am particularly proud of sponsoring and helping to organize a Clinical Roundtable on “Critical Topics in Pain Mechanisms and Therapeutics” (in 2016), a Short Course on “Optimizing Experimental Design for High-Quality Science” (in 2015) and in helping to re-install Pain Social as a regular component of the SFN meetings.

2019 – 2022: : European NEUROTWIN, External Advisory Board member.

7/2021 – 11/2021: Journal of Pain Editor-in-Chief Search Committee/USASP

Membership

Society for Neuroscience

International Association for the Study of Pain (IASP)

US Association for the Study of Pain (USASP)

American Society for Biochemistry and Molecular Biology

American Heart Association

American Association for the Advancement of Science (AAAS)

IV. SERVICE (continued)

A. Offices Held in Professional Organizations (continued)

Committees (continued):

National and International

Grant Review panels

NIH ZRG1-IFCN-B-03M, October 6-7, 2009, Reviewer
NIH ZRG1-IFCN-E-02M, May 4-5, 2010, Reviewer
NIH ZRG MDCN P 04 M, 12/5/2011 Study section/special panel, Reviewer
NIH ZRG CB-J, 10/10/2018 Study section/special panel, Reviewer
NIH ZRG ETTN-P (HEAL Initiative), 1/31/2019 Study section/special panel, Reviewer
NIH ZRG IFCN-N (HEAL Initiative), 11/13/2019 Study section/special panel, Reviewer
NIH ZRG1 BDCN-W (90), 07/28/2022 Study section/special panel, Reviewer
NIH ZNS1 SRB-R (09) NINDS Institutional Training Grants, 10/31/22-11/01/22 Study section/special panel, Reviewer
NIH ZNS1 SRB-R (15) NINDS Institutional Training Grants, 10/16/23-10/17/23 Study section/special panel, Reviewer
NIH ZNS1 SRB-R (24) NINDS Institutional Training Grants, 9/19/24-9/20/24 Study section/special panel, Reviewer
NIH SCS (Somatosensory and Chemosensory Systems) study section, January 31-February 1, 2012, October 15-16, 2014 and June 21-22, 2016, ad-hoc Reviewer
NIH NPI (Neurobiology of Pain and Itch) study section, June 28-29, 2022, ad-hoc Reviewer
NIH NPI (Neurobiology of Pain and Itch) study section, February 20-21, 2024, ad-hoc Reviewer
NIH ZRG F03A-E (20) Fellowships: Neurodevelopment, Synaptic Plasticity, and Neurodegeneration, 03/09/23-03/010/23 Study section/special panel, Reviewer
NIH NTRC (Neurotransporters, Receptors, Channels, and Calcium Signaling) study section, February 14-15, 2013 and February 20-21, 2020, ad-hoc Reviewer
NIH NST2 Study Section, February 16-19, 2021, ad-hoc Reviewer
NSF (National Science Foundation), BIO/IOS, Neural Systems ORG-2 panel, 02/14-03/14
DOD/CPMRP IIR-1 and IIR-2 panels, January 29-31, 2020, ad-hoc Reviewer
AHA (American Heart Association) Brain 3 study section, 05/10-04/13 regular member
AHA/Allen Initiative in Brain Health and Cognitive Impairment, 7/6/2018 study section, Reviewer
Wellcome Trust (UK) 2007, ad-hoc Reviewer
NIH NTRC (Neurotransporters, Receptors, Channels, and Calcium Signaling) study section, 2019 – 2021, Regular Member.

Departmental, Collegiate and University committees

Departmental

| | |
|----------------|---|
| 5/04 - 7/04 | Undergraduate Research Summer Program (Co-Director) |
| 9/05 - 8/07 | Admission Committee – Graduate Program in Pharmacology |
| 9/06 - 8/07 | Lauren Woods Award Committee |
| 9/06 - 8/07 | Committee on Resources (Chair) |
| 1/08 - 4/08 | Amanda Skolnick Award Committee |
| 9/08 - present | Graduate Committee |
| 9/08 - present | Admission Committee – Graduate Program in Pharmacology |
| 11/09 - 12/09 | Internal Review Committee of Probationary Faculties – Chair |

IV.**SERVICE (continued)****B. Committees (continued):**

| | |
|-----------------|--|
| 11/10 - 12/10 | Internal Review Committee of Probationary Faculties |
| 9/10 – 5/11 | Pharmacology Faculty Search Committee |
| 7/10 - present | Pharmacology Visiting Speakers Selection Committee |
| 10/10 - 3/14 | Junior Faculty, Dr. Mohapatra, Mentoring Committee |
| 3/12 - 8/14 | Junior Faculty Mentoring Committee (Chair) for Dr. Qi Wu |
| 8/13 - 11/13 | Internal Tenure Review Committee for Dr. Chen |
| 8/15-10/15 | Chair, Internal Group Review Committee for Dr. Rahmouni Promotion |
| 5/15 – present | Director of Behavioral Core |
| 8/16 – 5/17 | Pharmacology Neuroscience Faculty Search Committee |
| 8/18-10/18 | Internal Group Review Committee for Dr. Quelle Professor Promotion |
| 6/16 - present | Junior Faculty Mentoring Committee (Chair) for Dr. Huxing Cui |
| 10/18 - present | Junior Faculty Mentoring Committee (Chair) for Dr. Catherine Marcinkiewicz |
| 12/19 – present | Neuroscience & Pharmacology Faculty Search Committee |
| 8/21-10/21 | Chair, Internal Group Review Committee for Dr. Cui's Promotion |

Thesis Committees

| | |
|-------------|---|
| 2004 - 2006 | Eli Frakes, Ph.D. Student, Pharmacology Mentor – Dr. D. Hammond |
| 2004 - 2007 | Amy Jongeling, Ph.D. Student, Neuroscience Mentor – Dr. D. Hammond |
| 2005 - 2006 | Yuan Lu, Ph.D. Student, Neuroscience Mentor – Dr. J. Hell |
| 2005 - 2008 | Amy Halt, M.D./Ph.D. Student, Pharmacology/MSTP Mentor – Dr. J. Hell |
| 2006 - 2007 | Yang-Hsi Tsai, M.D. Student, Pharmacology Mentor – Dr. D. Hammond |
| 2006 - 2009 | Robert Dallapiazza, M.D./Ph.D. Student, Pharmacology/MSTP Mentor – Dr. J. Hell |
| 2006 - 2009 | Man-Su Kim, Ph.D. Student, Pharmacology, Committee chair Mentor – Dr. Y. Usachev |
| 2006 - 2010 | Shanna Nifoussi, Ph.D. Student, Pharmacology Mentor – Dr. S. Strack |
| 2007 - 2010 | Audrey Dickey, Ph.D. Student, Neuroscience Grad Program Mentor – Dr. S. Strack |
| 2007 - 2009 | Xiaowei Chen, Ph.D. Student, Pharmacology Work is performed at the University of Pittsburgh Mentor – Dr. G.F. Gebhart |
| 2007 - 2009 | Jun Xu, Ph.D. Student, Pharmacology Mentor – Dr. T. Brennan |
| 2009 - 2012 | Andrew Johnson, Ph.D. Student, Pharmacology Mentor – Dr. Frank Faraci |

IV. SERVICE (continued)

A. Offices Held in Professional Organizations (least to most recent) (continued)

Thesis Committees (continued)

| | |
|----------------|--|
| 2010 - 2012 | Matthew Yorek, M.S. Student Interdisciplinary/Neuropharmacology, Committee chair Mentor – Dr. Yuriy Usachev |
| 2009 - 2010 | Mingxu Zhang, Ph.D. Student, Pharmacology Mentor – Dr. Johannes Hell |
| 2009 - 2011 | Jason Ulrich, Ph.D. Student, Pharmacology, Committee chair Mentor – Dr. Yuriy Usachev |
| 2010 - 2012 | David Ho, M.D./Ph.D. Student, Physiology/MSTP Mentor – Dr. Charles Harata |
| 2010 - 2013 | Andrew Slupe, M.D./Ph.D. Student, Pharmacology/MSTP Mentor – Dr. S. Strack |
| 2010 - 2013 | Uche Maduka, Ph.D. Student, Pharmacology Mentor – Dr. D. Hammond |
| 2010 - 2011 | Jeffrey Coble, M.D./Ph.D. Student, Pharmacology/MSTP Mentor – Dr. C. Sigmund |
| 2008 - 2012 | Patrick Houlihan, Ph.D. Student, Pharmacology, Committee chair Mentor – Dr. Yuriy Usachev |
| 2011 - 2013 | Ted Wilson, Ph.D. Student, Molecular and Cellular Biology Mentor – Dr. S. Strack |
| 2011 - 2013 | Lipin Loo, Ph.D. Student, Pharmacology Mentor – D.P. Mohapatra |
| 2011 - 2013 | Arliss Dudley-Cash, Ph.D. Student, Neuroscience Mentor – T.J. Brennan |
| 2012 - 2014 | Aaron Mickle, Ph.D. Student, Pharmacology Mentor – D.P. Mohapatra |
| 2012 - 2017 | Kyle Flippo, Ph.D. Student, Pharmacology Mentor – Dr. S. Strack |
| 2013 - 2015 | Raeesa Gupte, Ph.D. Student, Pharmacology Mentor – Dr. DP Mohapatra |
| 2012 - 2017 | Charles Warwick, Ph.D. Student, Pharmacology, Committee chair; Mentor – Dr. Yuriy Usachev |
| 2013 - 2018 | Jacob Rysted, Ph.D. Student, Neuroscience, Committee chair Mentor – Dr. Yuriy Usachev |
| 2014 - 2018 | Jessica Thomas, Ph.D. Student, Neuroscience Mentor – Dr. A. Lee |
| 2014 - 2016 | Franc Jareczek, M.D./Ph.D., Student, Neuroscience/MSTP Mentor – Dr. D. Hammond |
| 2016 - present | Jennie Liu, Ph.D. Student, Pharmacology Mentor – Dr. S. Strack |
| 2014 - 2018 | Balyssa Bell, Ph.D. Student, Pharmacology Mentor – Dr. K. Rahmouni |
| 2016 - 2020 | Maria Noterman, Ph.D. Student, Neuroscience Mentor – Dr. A. Pieper/E. Taylor |
| 2017 – 2020 | Jianing Song, Ph.D. Student, Pharmacology Mentor – Dr. S. Strack |
| 2016 – 2018 | Jada Bittle, Ph.D. Student, Neuroscience Mentor – Dr. H. Stevens |

IV. SERVICE (continued)

A. Offices Held in Professional Organizations (least to most recent) (continued)

Thesis Committees (continued)

| | |
|----------------|---|
| 2018 - present | Grant Walters, Ph.D. Student, Neuroscience, Committee chair Mentor – Dr. Yuriy Usachev |
| 2017 - present | Mengya Wang, Ph.D. Student, Pharmacology Mentor – Dr. A. Russo |
| 2018 - 2019 | Lindsay Agostinelli, M.D./Ph.D. Student, Neuroscience Mentor – Dr. Alex Bassuk |
| 2018 – 2022 | Louis Balczak, Ph.D. Student, Neuroscience Mentor – Dr. Andy Russo |
| 2020 – 2023 | Bolu Zhou, Ph.D. Student, Pharmacology Mentor – Dr. Matt Potthoff |
| 2020 – 2023 | Alex Keyes, Ph.D. Student, Pharmacology, Committee chair Mentor – Dr. Yuriy Usachev |
| 2020 - 2022 | Joe Lesnak, Ph.D. Student, Physical Therapy Mentor – Dr. Sluka |
| 2021 – present | Alex Glebov-McCloud, Ph.D. Student, Molecular Medicine Mentor – Dr. Strack |
| 2022 – present | Karley Monaghan, Ph.D. Student, Pharmacology Mentor – Dr. Benson |
| 2022 – present | Tam Nguyen, Ph.D. Student, Pharmacology, Committee Chair Mentor – Dr. Usachev |
| 2022 – present | Connor Laule, Ph.D. Student, Pharmacology, Mentor – Drs. Rahmouni and Atasoy |
| 2024 – present | Julia Kim, Ph.D. Student, Pharmacology, Mentor – Dr. Atasoy |

Collegiate

| | |
|-------------------|---|
| 5/19 – present | Carver College of Medicine Executive Committee |
| 12/05 - present | Interviewer of applicants to the College of Medicine |
| 07/08 – 10/12 | Member, Biosciences Executive Committee |
| 09/09 – 5/14 | Member of Medical Scientist Training Program (MSTP) Admission Committee |
| 11/11 - 1/12 | Member, Tenured Faculty Evaluation Committee |
| 1/12 - present | Member, Carver College of Medicine Research Committee |
| March, 2013 | Member, Department of Anesthesia Review Committee |
| 12/14-6/15 | Member of the Department of Anesthesia Chair Search Committee |
| 7/15-present | FOEDRC Pilot & Feasibility Research Committee |
| 11/15-present | UIHC-CCOM Research Investment Pilot Grants Research Committee |
| 11/18 – present | Student Advisory Committee member, Neuroscience Graduate Program |
| 6/20 – present | Comprehensive Exam Committee, Neuroscience Graduate Program |
| 5/19 – present | Co-Director of the University of Iowa Pain Research Program. |
| September 1, 2020 | Chair, comprehensive exam committee for Caterina Sosa, Neuroscience |
| July 8, 2021 | Chair, comprehensive exam committee for Ashely Plumb, Neuroscience |
| August 2, 2021 | Chair, comprehensive exam committee for William Milanick, Neuroscience |
| August 31, 2021 | Chair, comprehensive exam committee for Utsav Mukherjee, Neuroscience |
| January 11, 2022 | Chair, comprehensive exam committee for Erik Zorrilla, Neuroscience |