

CHRISTOPHER P. FORD, PH.D.
ASSOCIATE PROFESSOR
UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

Address

Department of Pharmacology
Anschutz Medical Campus
University of Colorado School of Medicine
RC-1 North, Room P18-6131. Mail stop 8303
12800 East 19th Ave
Aurora, CO 80045

E-mail: christopher.ford@ucdenver.edu

EDUCATION AND TRAINING

Education

1994 – 1998 B.S. (Hons) Biological Sciences. University of Alberta, Edmonton, Canada
1998 – 2003 Ph.D., Neuroscience. University of Alberta, Edmonton, Canada

Post-Graduate Training

2004 – 2010 Postdoctoral Fellow. Vollum Institute, Oregon Health & Sciences
University, Portland, OR. Laboratory of Dr. John T. Williams.

ACADEMIC APPOINTMENTS

10/01/2017 – Associate Professor, Department of Pharmacology.
present University of Colorado School of Medicine. Aurora, CO

07/01/2017 – Associate Professor (with Tenure), Department of Physiology & Biophysics
09/30/2017 Secondary appointment: Department of Neurosciences.
Case Western Reserve University School of Medicine. Cleveland, OH

01/01/2011 – Assistant Professor, Department of Physiology & Biophysics
06/30/2017 Secondary appointment: Department of Neurosciences.
Case Western Reserve University School of Medicine. Cleveland, OH

HONORS AND AWARDS

1999 University of Alberta Mary Louise Imrie Graduate Student Award
1999 Province of Alberta Provincial Studentship
2000 – 2003 Alberta Heritage Foundation for Medical Research Studentship
2001 – 2003 Neurosciences Canada Studentship
2003 Western Canadian Research Symposium. Student Presenter Award
2004 Alberta Heritage Foundation for Medical Research Postdoctoral Fellowship
2004 – 2007 Alberta Heritage Foundation for Medical Research Fellowship Award
2004 – 2007 Life Sciences Research Foundation Postdoctoral Fellowship Grant
2009 NIH K99/R00 (NIDA) Pathway to Independence Award
2010 NIH NIDA Frontiers in Addiction Research Travel Award
2011 Mt Sinai Scholar, Mt. Sinai Health Care Foundation
2011 – 2012 NARSAD Young Investigator, Brain and Behavior Research Foundation

MEMBERSHIP IN PROFESSIONAL SOCIETIES

1999 – present Society for Neuroscience
2010 – 2012 American Physiological Society

PROFESSIONAL SERVICES

International Study Sections/Grant Review

2012 Grant Reviewer, French National Research Agency: Program Blanc
2014 Grant Reviewer, German-Israeli Foundation for Scientific Research and Development: Foundation Program Grant

National Study Sections/Grant Review

2014 – 2015 NIH-MNPS, Molecular Neuropharmacology and Signaling, Study Section, ad hoc reviewer (February 2014, October 2014, February 2015)
2016 NIH-ZRG1 MDCN-R (04), Special Emphasis Panel, ad hoc reviewer
2016 – 2020 NIH-MNPS, Molecular Neuropharmacology and Signaling, Study Section. Permanent member.

State Study Sections/Grant Review

2015 Louisiana Board of Regents Research Competitiveness Subprogram

Editorial Board

2014 – present Synapse

Journal Reviewer

Neuron, PNAS, Journal of Neuroscience, Journal of Physiology, Journal of Neurophysiology, Journal of Neurochemistry, Neurobiology of Disease, Cerebral Cortex, Synapse, Frontiers in Cellular Neuroscience, ACS Chemical Neuroscience, Scientific Reports

National Committees and Service

2013 – 2017 Board of Directors (cell/molecular), Winter Conference on Brain Research
2012 – present Program Committee, Winter Conference on Brain Research.

CWRU Medical School Committees and Service

2012, 2013 Workshop lecture, post-doctoral professional skills series
2011 – 2017 Biomedical Sciences Training Program (BSTP): student interviewer
2012 – 2017 Medical Sciences Training Program (MSTP): student interviewer
2016 – 2017 School of Medicine Lecture Committee

CWRU Departmental Committee Service

2013 Dept. of Physiology & Biophysics: Curriculum task force committee
2013 Dept. of Physiology & Biophysics: PhD recruitment committee
2013 Dept. of Physiology & Biophysics: PhD website committee
2013 – 2017 Dept. of Physiology & Biophysics: Journal club director
2012 – 2017 Dept. of Physiology & Biophysics: Departmental retreat committee/chair
2013 – 2017 Dept. of Physiology & Biophysics: PhD Program admissions committee
2015 Dept. of Physiology & Biophysics: search committee: instructor

CWRU Educational Committees

2013 – 2017 Dept. of Physiology & Biophysics: Admissions committee
2014 Dept. of Physiology & Biophysics: PHOL 402. Section leader.

TEACHING ACTIVITIES

CWRU School of Medicine Teaching

2011 – 2017 Year one, Block 2, Cell Physiology and Cancer Biology, medium size group (2 contact hours/year)
2011 – 2017 Year one, Block 4, Cardiovascular Cell Physiology, medium size group / Team-based learning (6 contact hours/year)
2013 – 2017 Year two, Block 6, Cognition, Sensation, and Movement, medium size group (1 contact hours/year)

CWRU Graduate School Teaching

2011 PHOL 476 Cell Biophysics (1 hour/year)
2012 – 2017 C3MB Cell Signaling Section (2 hours/year) (discussion leader)
2013 – 2017 PHOL 481 Action Potential Simulation lab (2 hours/year)
2014 PHOL 402 Synaptic plasticity (3 hours/year)
2015 – 2017 PHOL 481 Circuits of the Nervous System (2 hours/year)
2013 – 2017 Director: Dept. of Physiology & Biophysics: Journal club

GRADUATE STUDENT TRAINING

Ph.D. Student Trainees

Current Students:

- 1) 2012 – present Aphroditis Mamaligas, pre-doctoral (Ph.D.) student, Dept. of Neurosciences, CWRU
- 2) 2016 – present Yuan Cai, pre-doctoral (Ph.D.) student Dept. of Physiology & Biophysics, CWRU
- 3) 2017 – present Sarah Zych, (M.D./Ph.D) student, Medical Scientist Training Program (MSTP), Dept. of Neuroscience, University of Colorado (transfer from CWRU in 2017)
- 4) 2017 – present Sheng Gong, pre-doctoral (Ph.D.) student Dept. of Physiology & Biophysics, CWRU

Previous Students:

- 5) 2013 – 2017 Pamela Marcott, pre-doctoral (M.D./Ph.D) student, Medical Scientist Training Program (MSTP), Dept. of Physiology & Biophysics CWRU
 - Awarded: 1F30 DA040996 (03/2016 – 05/2019)
 - 2017 CWRU Doctoral Excellence Award
 - Current position: 3rd year medical student (MSTP) CWRU
- 6) 2011 – 2015 Nicholas Courtney, Ph.D. Dept. of Physiology & Biophysics CWRU
 - T32NS77888 training grant (2013 – 2015)
 - 2016 CWRU Doctoral Excellence Award
 - Current position: Post-doc; Dr. Ed Chapman, HHMI & U. Wisconsin.

CWRU Rotation Graduate (Ph.D.) Students

2011	Kate Fu, Dept. of Physiology & Biophysics
2011	Nicholas Courtney, Dept. of Physiology and Biophysics
2011	Jeff Blair, Biomedical Scientist Training Program (BSTP)
2011	Oheneba Amponsah, Dept. of Physiology & Biophysics
2012	Aphroditi Mamaligas, Biomedical Scientist Training Program (BSTP)
2012	Samantha Barclay, Cleveland Clinic Lerner College of Medicine
2012	Pamela Marcott, Medical Scientist Training Program (MSTP)
2014	Jie Yang, Dept. of Physiology & Biophysics
2015	Michael Babinchak, Medical Scientist Training Program (MSTP)
2015	Adrianna Milton, Biomedical Scientist Training Program (BSTP)
2015	Owen Shelton, Postbaccalaureate Research Education Program (PREP)
2015	Yuan Cai, Dept. of Physiology & Biophysics
2016	Alicia Vagnozzi, Medical Scientist Training Program (MSTP)
2016	Sarah Zych, Medical Scientist Training Program (MSTP)
2016	Sheng Gong, Dept. of Physiology & Biophysics

CWRU Student Thesis (Ph.D.) Committees

2011 – 2015	Ahlam Salameh, Physiology and Biophysics
2011 – 2014	Sheela Toprani, Physiology and Biophysics
2011 – 2015	Isaac Youngstrom, Neurosciences
2012 – 2015	Neil Goldsmith, Physiology and Biophysics (Committee chair)
2013 – 2015	Nicholas Schmandt, Neurosciences
2013 – 2014	Ross Anderson, Physiology and Biophysics
2014 – 2015	Loren Schmidt, Neurosciences (thesis examination committee)
2015 – 2017	Kaitlin Carlson, Neurosciences
2015 – 2017	Kendal Hoover, Neurosciences
2015 – 2017	David Litvin, Physiology and Biophysics
2015 – 2017	James Howell, Neurosciences
2015 – 2017	Edward Cui, Neurosciences

CWRU Student Qualifying Examination (Ph.D.) Committees

2011	Isaac Youngstrom, Physiology and Biophysics
2012	Nicholas Schmandt, Neurosciences
2014	Priyanka Gopal, Physiology and Biophysics
2014	Kaitlin Carlson, Neurosciences
2015	David Litvin, Physiology and Biophysics
2015	Kendal Hoover, Neurosciences
2015	Yvonne Gicheru, Physiology and Biophysics
2015	Dong Liu, Physiology and Biophysics
2016	Michael Babinchak, Physiology and Biophysics
2016	Edward Cui, Neurosciences
2017	Paulina Getsy, Physiology and Biophysics

CWRU Student Thesis (MS) Committees

2015	Priyanka Gopal, Physiology and Biophysics
------	---

CWRU Student Thesis (MD) Committees

2015 - 2016	Samantha Simpson, Cleveland Clinic Lerner College of Medicine
-------------	---

SCIENTIFIC ACTIVITIES

Seminars and Invited Lectures

2003	International Society for Autonomic Neuroscience. Calgary, AB
2006	Life Sciences Research Foundation. Washington, DC
2007	Dopamine 50 years, Goteborg, Sweden
2008	Winter Conference on Brain Research. Snowbird, UT
2009	Case Western Reserve University, Physiology and Biophysics. Cleveland, OH
2010	University of Texas, Department of Biology. San Antonio, TX
2010	University of Calgary, Hotchkiss Brain Institute, Calgary, AB
2010	Winter Conference on Brain Research, Breckenridge, CO
2011	Case Western Reserve University, Department of Neuroscience. Cleveland, OH
2011	International Narcotics Research Conference, Hollywood, FL
2012	University of Alberta, Department of Neurosciences, Edmonton, AB
2012	Case Western Reserve University, Department of Pharmacology. Cleveland, OH
2013	Winter Conference on Brain Research, Breckenridge, CO
2013	Washington University, Dept. of Anesthesiology. St. Louis, MO
2013	Wayne State University, Dept. of Pharmacology. Detroit, MI
2014	NINDS Intramural, National Institute of Health. Bethesda, MD
2014	Cleveland State University, Dept. of Biology, Cleveland, OH
2015	Winter Conference on Brain Research, Big Sky, MT
2015	Colorado State University, Dept. of Biomedical Sciences. Fort Collins, CO
2015	University of California San Francisco, Neuroscience. San Francisco, CA
2016	Winter Conference on Brain Research, Breckenridge, CO
2016	Spring Brain Conference, Sedona, AZ
2016	Case Western Reserve University, Dept. of Biology. Cleveland, OH
2017	University of Colorado School of Medicine, Dept. of Pharmacology, Aurora, CO
2017	Winter Conference on Brain Research, Big Sky, MT
2017	University of Florida, Dept. of Pharmacology, Gainesville, FL
2017	Texas A&M, Institute of Neuroscience, College Station, TX
(2018)	Columbia University, Dept. of Pharmacology, New York, NY
(2018)	Northwestern University, Dept. of Physiology, Chicago, IL

RESEARCH SUPPORT

Current Research Support

- 1) NIH-NIDA R01 DA035821 Ford (PI) 08/01/13 – 04/30/18
Encoding dopamine signals in the mesolimbic system
Role: PI 35% effort Direct Costs: \$225,000 / year

The goal of this award is to examine the mechanisms underlying the synaptic activation of dopamine receptors in the mesolimbic system and the changes in this system induced by cocaine and other psychostimulant drugs of abuse.

- 2) NIH-NINDS R01 NS095809 Ford (PI) 01/15/16 – 11/30/19
Regulation of striatal acetylcholine transmission by cholinergic interneurons
Role: PI 35% effort Direct Costs: \$218,750 /year

The goal of this application is to examine how ACh signals lead to the functional activation of muscarinic receptors in striatal output neurons and the alterations in these signals associated with neurological movement disorders.

- 3) NIH-NIMH R01 MH112355 Bruchas (PI), Ford (Co-I) 9/24/16 – 06/30/21
Decoding Locus Coeruleus Neural Circuits and Signaling in Negative Affect

Role: Co-I 5% effort

The goal of this application is to understand stress circuitry in the brain that regulates negative affective behaviors.

- 4) Michael J Fox Parkinson's Disease Foundation Qi (PI), Ford (Co-I) 09/28/16-09/27/17
Targeting mitochondrial unfolded proteins in alpha-synuclein-associated Parkinson's disease
Role: Co-I 5% effort

The goal of this study is to investigate the correlation between mtUPR impairment and alpha-synuclein-mediated toxicity in models of alpha-synuclein animal PD models.

Completed Research Support

- 1) NIH 5 R00 DA026417-05 Ford (PI) 04/01/11 – 03/31/14

Mechanisms of dopamine transmission in the VTA

Role: PI 75% effort Direct Costs: \$146,343 per year

The overall goal of this Pathway to Independence Award (K99/R00) was to examine the inputs to VTA neurons and how these inputs regulate the activity of midbrain VTA neurons.

- 2) NARSAD Young Investigator Award Ford (PI) 07/15/11 – 07/14/13

Actions of antipsychotics at an identified dopamine synapse

Role: PI Direct Costs: \$30,000 per year

This foundation award examined mechanisms of antipsychotic inhibition of dopamine transmission.

- 3) NIH 5 K99 DA026417 Ford (PI) 04/01/09 – 12/31/10

Mechanisms of dopamine transmission in the VTA

Role: PI Direct Costs: \$89,640 per year

The overall goal of this Pathway to Independence Award (K99/R00) is to examine the inputs to VTA neurons and how these inputs regulate the activity of midbrain VTA neurons

BIBLIOGRAPHY

Peer Reviewed Research Articles

1. Mamaligas AA, Cai Y, **FORD CP** (2016) Nicotinic and opioid receptor regulation of striatal dopamine D2-receptor mediated transmission. *Scientific Reports*. 6: 37834-37843
2. Mamaligas AA & **FORD CP** (2016) Spontaneous synaptic activation of muscarinic receptors by striatal cholinergic neuron firing. *Neuron*. 91(3): 574-586.
3. Courtney NA & **FORD CP** (2016) Mechanisms of 5HT_{1A} receptor-mediated transmission in dorsal raphe serotonin neurons. *Journal of Physiology*. 594(4): 953-965.
4. Piccart E, Courtney NA, Branch SY, **FORD CP**, Beckstead MJ (2015) Neurotensin induces presynaptic depression of D2 dopamine autoreceptor-mediated neurotransmission in midbrain dopaminergic neurons. *Journal of Neuroscience*. 35(31): 11144-11152.
5. McCall JG, Al-Hasani R, Siuda ER, Hong DY, **FORD CP**, Bruchas MR (2015) CRH engagement of the locus coeruleus noradrenergic system mediates stress-induced anxiety. *Neuron*. 87(3): 605-620.
6. Marcott PF, Mamaligas AA, **FORD CP** (2014). Phasic dopamine release drives rapid activation of striatal D2-receptors. *Neuron*. 84(1): 164-176

7. Courtney NA & **FORD CP** (2014). The timing of dopamine- and noradrenaline-mediated transmission reflects underlying differences in the extent of spillover and pooling. *Journal of Neuroscience*. 34(22): 7645-7656
8. Neve KA, **FORD CP**, Buck DC, Grandy DK, Neve RL, Phillips TJ (2013). Normalizing dopamine D2 receptor mediated responses in D2 null mutant mice by virus mediated receptor restoration: comparing D2L and D2S. *Neuroscience*. 248C: 479-487.
9. Courtney NA, Mamaligas AA, **FORD CP** (2012) Species differences in somatodendritic dopamine transmission determine D2-autoreceptor mediated inhibition of ventral tegmental area neuron firing. *Journal of Neuroscience*. 32(39): 13520-13528
10. Gantz SC, **FORD CP**, Neve KA, Williams JT (2011). Loss of Mecp2 in substantia nigra dopamine neurons compromises the nigrostriatal pathway. *Journal of Neuroscience*. 31 (35), 12629-12637.
11. **FORD CP**, Gantz SC, Phillips PE, Williams JT (2010). Control of extracellular dopamine at dendrite and axon terminals. *Journal of Neuroscience*. 30 (20): 6975-6983.
12. Bender KJ, **FORD CP**, Trussell LO (2010). Dopaminergic modulation of axon initial segment calcium channels regulates action potential initiation. *Neuron*. 68 (3), 500-511.
13. **FORD CP**, Phillips PE, Williams JT. The time course of dopamine transmission in the ventral tegmental area (2009). *Journal of Neuroscience*. 29 (42): 13344-1335.
14. Beckstead MJ, Gantz S, **FORD CP**, Stenzel-Poore MP, Phillips PE, Mark, GP, Williams JT (2009). CRF enhancement of GIRK channel-mediated transmission in dopamine neurons. *Neuropsychopharmacology*. 34 (8): 1926-1935.
15. **FORD CP**, Wong KV, Posse De Chaves E, Smith PA (2008). Differential neurotrophic regulation of sodium and calcium channels in an adult sympathetic neuron. *Journal of Neurophysiology*. 99 (3): 1319-1332.
16. Beckstead MJ, **FORD CP**, Phillips PE, Williams JT (2007). Presynaptic regulation of dendrodendritic dopamine transmission. *European Journal of Neuroscience*. 26 (6): 1479-1488.
17. **FORD CP**, Beckstead MJ, Williams JT (2007). Kappa opioid inhibition of somatodendritic dopamine inhibitory post synaptic currents. *Journal of Neurophysiology*. 97 (1): 883-891.
18. **FORD CP**, Mark GP, Williams JT (2006). Properties and opioid inhibition of mesolimbic dopamine neurons vary according to target location. *Journal of Neuroscience*. 26 (10): 2788-2797.
19. **FORD CP**, Stemkowski PL, Smith PA (2004) Possible role of phosphatidylinositol 4,5 bisphosphate in luteinizing hormone releasing hormone-mediated M-current inhibition in bullfrog sympathetic neurons. *European Journal of Neuroscience*. 20 (11):2990-2998.
20. **FORD CP**, Dryden WF, Smith PA (2003). Neurotrophic Regulation of Calcium Channels by the Peptide Neurotransmitter Luteinizing Hormone Releasing Hormone. *Journal of Neuroscience*. (23) 18: 7169—7175.

21. **FORD CP**, Stemkowski PL, Light PE, Smith PA (2003). Experiments to Test the Role of Phosphatidylinositol-4,5,-Bisphosphate in Neurotransmitter-Induced M-channel Closure in Bullfrog Sympathetic Neurons. *Journal of Neuroscience* 23 (12): 4931-4941.
22. Stemkowski PL, Tse FW, Peuckmann V, **FORD CP**, Colmers WF, Smith PA (2002). ATP-inhibition of M current in frog sympathetic neurons involves phospholipase C but not Ins P(3), Ca(2+), PKC, or Ras. *Journal of Neurophysiology* 88(1):277-288.
23. **FORD CP**, Ivanoff AY, Smith PA (2000). Interaction of vasomotor and exocrine neurons in bullfrog paravertebral sympathetic ganglia. *Canadian Journal of Physiology and Pharmacology*. 78(8):636-644.

Reviews & Article Previews

24. Gantz S, **FORD CP**, Morikawa H, Williams JT (2018). The evolving understanding of dopamine neurons in the substantia nigra and ventral tegmental area. *Annual Review of Physiology*. (in press)
25. Mamaligas AA & **FORD CP** (2017) Revealing a role for NMDA receptors in regulating STN inputs following the loss of dopamine. *Neuron*. 95(6): 1227-1229
26. **FORD CP** (2014). The role of D2-autoreceptors in regulating dopamine neuron activity and transmission. *Neuroscience*. 282: 13-22.
27. **FORD CP** & Williams JT (2008). Mesoprefrontal dopamine neurons distinguish themselves. *Neuron*. 57 (5): 631-632.

Submitted / In Revision Articles

28. Marcott PF & **FORD CP** (2017). Regional heterogeneity of D2-receptor signaling in the dorsal striatum and nucleus accumbens.
 29. Slim K, Yang J, Marcott PF, Asenio C, **FORD CP**, Edwards RH (2017). Neurotransmitter content defines synaptic vesicle pools with different release probability.
- Gantz S, **FORD CP**, Morikawa H, Williams JT (2017). The evolving understanding of dopamine neurons in the substantia nigra and ventral tegmental area. (Review).

Abstracts/ Poster presentations

1. **FORD C.P.** and Smith, P.A. (1999) Long term regulation of Ca²⁺ channels in bullfrog sympathetic ganglia by tonic *in vivo* release of LHRH. Soc. Neurosci. Abs 25 2251, 1999
2. **FORD, C.P.** and Smith, P.A. (2000) The neuropeptide transmitter, LHRH, regulates calcium channels via the ras MAPkinase pathway. Soc. Neurosci Abs 26 624, 2000
3. P.A. Smith, **C.P. FORD**, T. Gordon and E.J. Sanders. (2001) Trophic regulation of calcium channels *in vivo*. Soc. Neurosci Abs 31, 271.14, 2001
4. P. L. Stemkowski, **C. P. FORD** and P.A. Smith (2002) Involvement of phosphatidylinositol 4,5 bisphosphate in agonist-induced M-current suppression. Proc. Canadian Federation of Biological Societies 45, 61, 2002

5. **FORD C.P.**, P.L. Stemkowski, P.E. Light and P.A. Smith (2002) ATP-Mediated M-channel suppression involves inositol phosphate and lipid cycles. Soc. Neurosci. Abs. 28: 438.2, 2002
6. V.B Lu, **C.P. FORD**, W.F. Dryden and P.A. Smith (2002) Regulation of Sodium channels by nerve growth factor but not by luteinizing hormone releasing hormone: the role of PI3K. Soc. Neurosci Abs. 28: 743.1, 2002
7. P.A. Smith, **C.P. FORD**, P.L. Stemkowski and P.E. Light, (2003) Chasing the elusive second messenger for agonist-induced M-current suppression. J Physiol (Lond) 2003 547P. SA11
8. **FORD CP**, Stemkowski PL, Light PE, Smith PA (2003) Neurotransmitter suppression of M-channel conductance involves depletion of phosphatidyl 4,5 bisphosphate. Biophysical Journal Supplement 84: 237a; #1154
9. V.B. Lu, **C.P. FORD**, P.A. Smith (2003) Differential regulation of Na⁺ and Ca²⁺ channels in adult sympathetic neurons by distinct trophic factors. Autonomic Neuroscience/ISAN 106(1): 20
10. **FORD C.P.**, P.L. Stemkowski, P.E. Light, P.A. Smith (2003) M-Type K⁺ Channel Suppression By ATP and Muscarine Involves Depletion of Phosphatidylinositol 4,5 Bisphosphate. Autonomic Neuroscience/ISAN 106 (1): 4
11. **FORD C.P.** & P.A. Smith (2003). Luteinizing Hormone Releasing Hormone Mediated M-Channel Suppression Involves the Depletion of PIP₂. Soc. Neurosci. Abs. 29
12. **Ford C.P.** & J.T. Williams (2005) Opioid Control of Dopamine Neurons Depends on Target Location. Life Sciences Research Foundation Annual Meeting
13. **FORD C.P.** & J.T. Williams (2006) Kappa Opioid Inhibition of Somatodendritic Transmission. Gordon Research Conference: Synaptic Transmission
14. **FORD C.P.** (2007) Heterogeneity of VTA neurons. Dopamine 50 Years
15. **FORD C.P.** & J.T. Williams (2007) Opioid Inhibition of Somatodendritic Inhibitory Post-Synaptic Currents. 40th Winter Conference on Brain Research
16. **FORD C.P.** & J.T. Williams (2007) Regulation of Dopamine Synaptic Transmission in the Midbrain. 1st Canadian Association for Neuroscience Meeting
17. **FORD C.P.** & J.T. Williams (2008) Determining the timecourse and concentration of dopamine mediating transmission. Gordon Research Conference, synaptic transmission
18. **FORD C.P.**, Phillips P.E. & J.T. Williams (2009). The concentration and duration of dopamine that mediates a D2-receptor IPSC. Soc. Neurosci. Abs. 38.5
19. **FORD CP** & Williams JT (2010) D2-receptor activation in the VTA by tonic and phasic actions of dopamine. Soc. Neurosci. Abs. 140.19
20. Bender KJ, **FORD CP**, Trussell LO (2010) Dopaminergic modulation of spike bursting in auditory brainstem interneurons. Soc. Neurosci. Abs. 240.17
21. Courtney NA & **FORD CP** (2012) Pooling of noradrenaline determines the time course of alpha2 receptor transmission in the locus coeruleus. Soc Neurosci. Abs. 335.12

22. Barclay SL & FORD CP (2012) Mechanisms regulating norepinephrine mediated alpha2-IPSCs in the rat locus coeruleus. *FASEB J.* 26: 903.1
23. Courtney NA & **FORD CP** (2013) Reuptake transporters limit dopamine but not noradrenaline pooling during autoreceptor feedback inhibition. *Soc. Neurosci. Abs.* 517.20
24. Marcott PF, Mamaligas AA, **FORD CP** (2014) Activation of striatal D2-receptors by phasic and tonic dopamine signals. Gordon Research Conference: Basal Ganglia
25. Courtney NA & **FORD CP** (2014) Transporters regulate spillover to limit dopamine volume transmission and post-synaptic D2-receptor activation. Gordon Research Conference: Basal Ganglia
26. Marcott PF & **FORD CP** (2014) Activation of striatal D2-receptors by phasic and tonic dopamine signals. American Physician Scientists Association 10th Annual Meeting
27. Courtney NA & **FORD CP** (2014) Serotonergic regulation of local circuitry in the dorsal raphe. Gordon Research Conference: Synaptic Transmission
28. Marcott PF & **FORD CP** (2015) Functional properties of dopamine and glutamate co-transmission in the nucleus accumbens. Gordon Research Conference: Catecholamines
29. Mamaligas AA & **FORD CP** (2015) Acetylcholine evokes spontaneous muscarinic IPSCs in medium spiny neurons overexpressing GIRK channels. *Soc. Neurosci. Abs.* 708.20
30. Marcott PF & **FORD CP** (2016) Regional heterogeneity of dopamine transmission in the striatum. Gordon Research Conference: Basal Ganglia
31. Mamaligas AA & **FORD CP** (2016) ACh evokes spontaneous muscarinic IPSCs in medium spiny neurons overexpressing GIRK channels. Gordon Research Conference: Basal Ganglia
32. Marcott PF & **FORD CP** (2016) Regional heterogeneity of dopamine D2-receptor signaling in the dorsal striatum and nucleus accumbens. *Soc. Neurosci. Abs.*
33. Mamaligas AA & **FORD CP** (2016) Striatal cholinergic interneuron firing evokes spontaneous synaptic activation of muscarinic receptors. *Soc. Neurosci. Abs.*
34. Cai Y & **FORD CP** (2016) Acetylcholine and opioid regulation of dopamine D2 receptor mediated transmission in striatal medium spiny neurons. *Soc. Neurosci. Abs.*