

# Regina M. Carelli, PhD

## Curriculum Vitae

Department of Psychology & Neuroscience  
University of North Carolina, Chapel Hill

### Contact Information

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Address: Davie Hall  
CB #3270  
Department of Psychology & Neuroscience  
University of North Carolina, Chapel Hill  
Chapel Hill, NC 27599

Office Phone: 919-962-8775  
Lab Phone: 919-962-0419  
Email: [rcarelli@unc.edu](mailto:rcarelli@unc.edu)  
Web: <https://reginacarelli.web.unc.edu/>

### Education

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Ph.D. Psychology, Behavioral Neuroscience Program, Rutgers University, New Brunswick, NJ, 1991.

M.S. Psychology, Behavioral Neuroscience Program, Rutgers University, New Brunswick, NJ, 1987.

B.A. Psychology/English, Rutgers University (Rutgers College), Departmental Honors (Highest Distinction) in Psychology. New Brunswick, NJ, 1984.

### Employment

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2022-present Chair, Department of Psychology and Neuroscience, University of North Carolina, Chapel Hill, NC.

2013-2022 Associate Chair, Department of Psychology, University of North Carolina, Chapel Hill, NC.

2012-2013 Acting Chair, Department of Psychology, University of North Carolina, Chapel Hill, NC (July 1, 2012- June 30, 2013).

2011-present	Stephen B. Baxter Distinguished Professor, Dept. Psychology, University of North Carolina, Chapel Hill, NC (Jan 1, 2011-present).
2010	Edwin Averyt Poston Distinguished Professor, Dept. Psychology, UNC, Chapel Hill, NC (June 30-Dec 31, 2010).
2006-2010	Professor, Department of Psychology, University of North Carolina, Chapel Hill, NC
2006-present	Member, UNC Neuroscience Center, University of North Carolina, Chapel Hill, NC.
2004-2012	Director, Behavioral Neuroscience Program, Department of Psychology, University of North Carolina, Chapel Hill, NC
1997-present	Graduate Faculty, Curriculum in Neurobiology, University of North Carolina, Chapel Hill, NC.
2002-2006	Associate Professor, Department of Psychology, University of North Carolina, Chapel Hill, NC
1997-2002	Assistant Professor, Department of Psychology, University of North Carolina, Chapel Hill, NC.
1996-1997	Assistant Professor, Department of Physiology & Pharmacology, Wake Forest University School of Medicine, Winston-Salem, NC.
1991-1996	Postdoctoral Fellow, Department of Physiology & Pharmacology, Wake Forest University School of Medicine, Winston-Salem, NC.
1987-1991	Graduate Research Assistant, Department of Psychology, Rutgers University.
1985-1987	Teaching Assistant, Department of Psychology, Rutgers University
Summer (85/86)	Research Summer Consultant, Ciba-Geigy Corporation, Behavioral Neuroscience Division, Summit NJ.

## Research Support

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### *Current Funding*

- Principal Investigator, National Institute on Drug Abuse. R01: Corticolimbic Circuits in Negative Affect. 2020-2025, Total: 1,414,636.

- Principal Investigator/Director, National Institute on Drug Abuse T32. “Predoctoral Training in Research in Addiction Science”. 2015-2025. Mentor: 1997-present.

### ***T32 Training Grant (Mentor)***

- Mentor (Director, Mark Zylka Ph.D.) Research Training in the Neurosciences. National Institute of Neurological Disorders and stroke. 1997-present.

### ***Completed Grants***

- Consultant, National Institute on Drug Abuse, R43 Development and Evaluation of a Higher Power tACS Device for the Treatment of SUD. 2021-2022. Subcontract Total: \$21,138.
- Principal Investigator, National Institute on Drug Abuse, R21: “Non-invasive brain stimulation and addiction: preclinical model”. 2018-2022. Total: \$414,185
- Principal Investigator, National Institute on Drug Abuse. R01: “Neurophysiological Cocaine & Natural Rewards”. 2014-2021. Total: \$1,672,230
- Principal Investigator, National Institute on Drug Abuse. R01: “Neurobiological Investigation of Decision Making in Rats”. 2013-2020 Total: \$1,742,725
- Principal Investigator (Co-Investigator, R. Mark Wightman), National Institute on Drug Abuse R01: “Combined Voltammetry/Electrophysiology in Behaving Rats”. 2004-2015; Total: \$ 1,782,407
- Principal Investigator, National Institute on Drug Abuse. R01: “Neurophysiological Study: Cocaine & Natural Rewards” 2007-2013. Total: \$ 1,263,046
- Principal Investigator, National Institute on Drug Abuse. “2011 Catecholamines Gordon Research Conference”. Total: \$45,000.
- Co-Investigator with Donita L. Robinson. Drinking preference and heterogeneity in the nucleus accumbens response to ethanol. Bowles Alcohol Center Grant Pilot Project program. Total: \$60,000. 2005-2007.
- Principal Investigator, National Institute on Drug Abuse. R01: “Neurophysiological Study: Cocaine & Natural Rewards” 2001-2006. Total: \$ 1,263,046

- Subcontract (PI: Patricio O'Donnell, Ph.D.) National Institute of Health. "Electrophysiology of the Prefrontal Cortex. 2003-2004. Total: \$ 50,000
- Principal Investigator (Co-PI: R.M. Wightman, Ph.D.), National Institute on Drug Abuse. PA # PAR-01-047: Cutting-Edge Basic Research Awards: R21 Stage I Award: "Combined Voltammetry/Electrophysiology in Behaving Rats" 2001-2003. Total: \$ 300,000
- Co-Principal Investigator (PI: Donald T. Lysle, Ph.D.). National Institute on Drug Abuse. "Determinants of Opioid/Immune Interactions". 2000-2003. Total: \$539,015
- Co-Principal Investigator (PI: Donald T. Lysle, Ph.D.) National Institute on Drug Abuse. "Behavioral Factors in Heroin's Effect on Nitric Oxide" 2000-2003. Total: \$539,593
- Co-Principal Investigator (PI: Mitchell J. Picker, Ph.D.) National Institute on Drug Abuse. "Biobehavioral Actions of Partial Mu Agonists" 1999-2003. Total: \$689,020
- Principal Investigator, The Whitehall Foundation Research Grant. "Neurophysiological Examination of Brain Reward Processing". 1999-2002. Total: \$123,000
- Principal Investigator, UNC (Mason and Linda Stephenson Faculty Award): "Neurophysiological Examination of Heroin Self-Administration" 1999. Total: \$1,000
- Principal Investigator, UNC Chapel Hill (Junior Faculty Development Award): "Neurophysiological Examination of Basolateral Amygdala Cell Firing during Cocaine Self-Administration". 1998. Total: \$5,000
- Principal Investigator, National Institute on Drug Abuse R29 Award (DA10006): "Development of a Rat Model of Cocaine Abuse in Humans". 1996-2001. Total: \$506,203
- Principal Investigator, Postdoctoral National Research Service Award. National Institute on Drug Abuse (DA05535): "VTA & Accumbens cell activity during self-administration". 1993-1995. Total: \$75,200.

***Mentor/Sponsor/Advisor for Predoctoral, Postdoctoral or K Awards***

- Alexis League (PI) Predoctoral National Research Service Award: Assessing Targeted Cannabinoid Therapeutic Potential Against HIV-1 Associated Neuronal Hyperexcitability and Neuroinflammation. (Carelli: Co-Sponsor with Sylvia Fitting). 2022-2024.

- Daniel Christoffel (PI) NARSAD Young Investigator Award (Carelli: Mentor) 2021-2023.
- Louisa Kane (PI) National Science Foundation (NSF) Graduate Research Fellowship (GRF). 2021-2024.
- Rachel Haake (PI) Predoctoral National Research Service Award: “Investigating the role of the prelimbic cortex to nucleus accumbens core pathway in persistent cocaine seeking”. 2020-2021.
- Travis M. Moschak (PI) K99 Pathway to Independence Award. “Neural circuitry of distress tolerance”. 2019-2021.
- Seth W. Hurley (PI) Postdoctoral National Research Service Award: “Corticolimbic circuitry mediating negative affect”. 2018-2020.
- Elizabeth West (PI) K99 Pathway to Independence Award. “Neural circuitry mediating behavioral flexibility”. 2017-2019.
- Deirdre Sackett (PI) Predoctoral National Research Service Award: “Neurobiological investigation of delay discounting: role of prelimbic cortex à nucleus accumbens circuit”. 2016-2018.
- Elizabeth West (PI) Postdoctoral National Research Service Award. “The role of accumbens neural activity and dopamine release in flexible behavior”, 2014-2017.
- Michael Saddoris (PI) K99 Pathway to Independence Award “Mechanisms of Higher-Order Learning in the NAc Impaired by Cocaine Exposure”. 2013-2015.
- Domenic Cerri (PI) Predoctoral National Research Service Award. “Neurobiological Investigation of BLA → NAc Circuit in Motivated Behavior”, 2013-2016.
- Jonathan Sugam (PI) Predoctoral National Research Service Award. “Neurophysiological analysis of accumbens activity during risk-taking behavior”. 2011-2013.
- Courtney Cameron (PI) Predoctoral National Research Service Award. “The Role of Accumbens Rapid Dopamine Signaling in Sucrose and Cocaine Seeking”. 2010-2013.
- Michael Saddoris (PI) Postdoctoral National Research Service Award. “Rapid dopamine release in nucleus accumbens in Pavlovian-to-Instrumental Transfer” 2010-2013.

- Robert A. Wheeler (PI) K99 Pathway to Independence Award “The neural Regulation of Negative Affect in a New Model of Cocaine Seeking”. 2009-2014.
- Diversity Supplement of “Combined Voltammetry/Electrophysiology in Behaving Rats” (recipient: Manna Beyenne). 2007-2009.
- Joshua L. Jones (PI) Predoctoral National Research Service Award. "Amygdalar regulation of nucleus accumbens reward signaling" 2007-2010.
- Jeremy J. Day (PI) Predoctoral National Research Service Award. NIDA "Neural regulation of effort in goal-directed behaviors" 2006-2009.
- Brandon J. Aragona, PhD (PI) Postdoctoral National Research Service Award. National Institute on Drug Abuse. "Dopamine, accumbens signaling & associative learning" 2006-2009.
- Robert A. Wheeler, PhD (PI) Postdoctoral National Research Service Award. National Institute on Drug Abuse. "The Nucleus Accumbens and Relative Reward" 2006-2009.
- Advisor, C.J. Malanga (PI) Mentored Clinical Scientist Development Award (K08), National Institute on Drug Abuse, "Effects of Prenatal Cocaine Exposure on Brain Reward" 2004-2009.
- Mitchell F. Roitman, Ph.D. (PI) Mentored Research Scientist Development Award (K01), National Institute on Drug Abuse, "Rapid DA-Acb Signaling in Ingestive Behaviors" 2004-2009.
- Donita L. Robinson (PI) Mentored Research Scientist Development Award (K01), National Institute on Alcohol Abuse and Alcoholism, “Ethanol drinking in rats: accumbal circuit activity”. 2004-2009.
- Jonathan A. Hollander (PI), Predoctoral National Research Service Award, National Institute on Drug Abuse, “Neurophysiological Effects of Cocaine Abstinence”. 2003-2006.
- Garret D. Stuber (PI), Predoctoral National Research Service Award. National Institute on Drug Abuse, “Phasic dopamine during cocaine self-administration”. 2002-2005.
- Mitchell F. Roitman, Ph.D (PI), Postdoctoral National Research Service Award. National Institute on Mental Health, “Modulation of reward-related accumbens activity”. 2002-2004.

## Scientific Advisory Boards/Review Panels

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- Ernest Gallo Clinic and Research Center. 2008 Scientific Advisory Board, ad hoc member. Casa Madrona Hotel, Sausalito, CA, November 23-25, 2008
- Scientific Advisory Committee for Program Project grant (PPG), University of Michigan. PI: Terry Robinson, PhD.
- The Medical University of South Carolina, External reviewer, The Neurobiology of Addiction Research Center Review, September 15, 2011.
- The Medical University of South Carolina NIDA P50 Center (Peter Kalivas, PI). Member: External advisory committee, 2012.
- NIDA Board of Scientific Counselors (BSC) 2014-2021
- T32 training grant entitled “Rutgers Molecular Neuroendocrinology of Alcohol and Drug Abuse Research Training”. Dipak Sarkar (PI) and Gary Aston-Jones (Co-PI) Member, External Advisory Board. 2017-present
- T32 training grant entitled “Neuroscience Training in Drug Abuse Research”. Paul Mermelstein (PI) External Review Committee.
- T32 training grant entitled: The Neurobiology of Drug Abuse. Sara Jones (PI) NDATP External Advisory Committee. *pending*

## Academic Awards and Honors

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1984	Henry Rutgers Undergraduate Honors: Highest Distinction
1994	College on Problems of Drug Dependence, 1994 Travel Award
1996/97	Western NC Chapter of the Society for Neuroscience: Secretary/Treasurer
1996	National Institute on Drug Abuse FIRST Award (R29)
1998	Mason and Linda Stephenson Faculty Award
1999	University of North Carolina Junior Faculty Development Award
1999	The Whitehall Foundation Research Award
2000	Elected Member of the UNC Faculty Council (3 year term)
2001	Presidential Early Career Award for Scientists and Engineers (PECASE)
2005	The University of Texas Medical Branch (UTMB) Department of Pharmacology and Toxicology, "NIDA Distinguished Professor for 2005"
2005	Invited Speaker, Frontiers of Science, National Academy of Sciences
2007	Elected Chair: Gordon Research Conference on Catecholamines (Co-Chair, 2009; Chair, 2011)
2009	Invited Participate (by UNC Chancellor); Workshop entitled “The Entrepreneurial Mindset- Maximizing Faculty Impact” May 11-14, 2009

2010	Member: Steering committee for UNC 2010 Academic Plan (Invited by UNC Provost)
05, 07, 08-10, 17	Teaching Commendation Letters from Psychology Dept. Chair (2005, 2007, 2008, 2009, 2010, 2017)
2011-2012	Co-Chair: Steering Committee for the UNC Academic Plan (Invited by UNC Provost)
2011-2013	Working on Women in Science Scholar (WOWS) Appointed by Dean Gil.
2013-2016	Member, National Advisory Council on Drug Abuse (NIDA: NIH).
2014-2022	NIDA Board of Scientific Counselors (Intramural Program)
2015	Senior Faculty Competitive Research & Scholarly Leave (Provost's office)
2016-2019	Fellow, Association for Psychological Science (APS)
2018	UNC-CH Distinguished Teaching Award for Post-Baccalaureate Instruction (awarded by UNC Chancellor & Provost)

## Professional Affiliations

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American Psychological Society (1993-1994)  
 Society for Neuroscience (1986-present)  
 College on Problems of Drug Dependence (1997-2011)  
 Association for Psychological Science (Fellow) 2016-2019

## Professional Services

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### Journal Review (ad hoc)

The Journal of Neuroscience; Neuroscience; Pharmacology, Biochemistry & Behavior; Experimental and Clinical Psychopharmacology; European Journal of Neuroscience; Nature Reviews Neuroscience; Brain Research; Neuroscience Letters; Neuron; Behavioral Brain Research; Journal of Pharmacology and Experimental Therapeutics; Neuropharmacology, Alcohol; Experimental Brain Research; Neuropsychopharmacology, Nature, Psychopharmacology, Trends in Neuroscience; Learning and Memory, Behavioral Neuroscience; Behavioural Pharmacology, Cerebral Cortex, Science, The Journal of Neurochemistry, Drug and Alcohol Dependence, Biological Psychiatry, Proceedings of the National Academy of Sciences, Brain Research Bulletin, PlosOne, European Neuropsychopharmacology, Addiction Neuroscience

### Editorial Board

Consulting Editor: Behavioral Neuroscience (2007-present)  
 Editorial Board Member: Behavioural Brain Research (2008-present)  
 Associate Editor: European Journal of Neuroscience (2008-2015)  
 Editorial Board Member: Neuropharmacology (2011-July 2020)  
 Associate Editor: Addiction Neuroscience (2021-present)

### Grant Review/Advisory Committees

United States Army Medical Research and Materiel Command. Ad hoc reviewer.



National Institute of Health: Scientific Review Special Emphasis Panel F02A (Ad hoc reviewer: March 20, 2003; June 24, 2003; Oct 28, 2003, March 2, 2004).

National Institute of Health: Special Emphasis Panel ZRG1 IFCN-A (04) (Ad hoc reviewer: June 13, 2005).

National Institute of Health: Neurobiology of Motivated Behavior Study Section [NMB] (Formerly IFCN-1) Ad hoc reviewer: June 10-11, 2004; October 18-19, 2004; February 3-4, 2005; February 9-10, 2006; June 5-6, 2006.

National Institute of Health: Neurobiology of Motivated Behavior Study Section [NMB] Regular Member: 2006-2010.

National Institute of Health: Special Emphasis Panel 2010/05 ZRG1 IFCN-L, Member Conflict: Addiction and Toxicity, February 16-17, 2010

National Institute of Health: Special Emphasis Panel 2011/05 ZRG1 IFCN-H (02) Member Conflict: Integrative Neuroscience, February 17-18, 2011.

Klarman Family Foundation Scientific Review Committee, 2012-2014, Boston MA

Member, National Advisory Council on Drug Abuse (NIDA: NIH), 2013-2017

NIDA Board of Scientific Counselors for IRP (Representative, National Advisory Council on Drug Abuse), 2015-2018; Chair, 2019-2022.

National Science Foundation, ad hoc grant review, 2015

Medical Research Council, 2015-2016

National Institute of Health: ZRG1 IFCN-C (02) M Special Emphasis Panel: Alcohol and Motivated Behavior; March 1-2, 2017

## **Administrative Experience:**

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Physiology & Pharmacology Department, Wake Forest University Medical School  
Promotions Committee

Department of Psychology and Neuroscience, University of North Carolina, Chapel Hill

Admissions Committee: Curriculum in Neurobiology (1997-2009)

Admissions Committee: Biological Psychology Program (1997-present)

Animal Care Committee (1997-2000)

Psychology Department Chair Selection Committee (1998)

Harriet L. Rheingold Predoctoral Research Grant Committee

Participation in: Minority Student Graduate School Day

Participation in: UNC Psychology Department's Board of Advancement Meeting

Biological Psychology Faculty Search Committee (2000-2001)

Psychology Department: Undergraduate Advisor (Fall 2001-Fall 2004)

Psychology Department: Honors Council (2001-2005)

Cognitive Psychology Faculty Search Committee (2002-2003 and 2003-2004)

Psychology Department Chair Selection Committee (2004)

Director: Behavioral Neuroscience Program (formally Biological Program), Psychology Department (2004-present)

Psychology Department Advisory Committee (elected 3 year term- 2004-2007; elected to a second 3-year term, 2007-2010)

Faculty Teaching Mentor (2004-2005)

Departmental Webpage Committee (2004)  
 Chair: Biological Psychology Faculty Search Committee (2004-2005)  
 Merit Evaluation Committee (Spring 2005)  
 Co-Chair: BRIC Neuroimaging Psychology Faculty Search Committee (2006-2007)  
 Third year review committee for Jennifer Arnold (2006)  
 Chair: Third Year Review/Early Tenure Promotion Task Force (2006-2007)  
 Faculty mentoring committee for Jennifer Arnold (2006-2009)  
 Chair: Third Year Review for Rita Fuchs-Lokensgard (2007-2008)  
 Chair: Psychology Department Chair Selection Committee (Spring 2007)  
 Chair: Faculty mentoring committee for Rita Fuchs-Lokensgard (2007-2009)  
 Chair: Committee for Promotion to Full Professor for Todd Thiele (2007-2008)  
 Chair: Psychology department Accounting Position Search Committee (2007-2008)  
 Psychology Department Post-Tenure Review Committee Member (spring 2008)  
 Chair: Behavioral Neuroscience Graduate Admissions Committee (2008)  
 Faculty mentoring committee for Charlotte Boettiger (2008-2011; 2013-2014)  
 Member: Search Committee for NRI Assistant Professor (Carol L. Cheatham)(May 2008)  
 Chair: Behavioral Neuroscience Program Coordinator Search Committee (2008)  
 Member: Committee for Promotion to Full Professor for Eric Youngstrom (2008)  
 Member: Committee for Promotion to Associate Professor for Jennifer Arnold (2009)  
 Chair: Committee for Promotion to Assoc Professor for Rita Fuchs-Lokensgard, 2010.  
 Chair: Third Year Review Committee for Charlotte Boettiger (2010)  
 Chair: Search Committee, Nutrition Research Institute, Knapolis Campus, 2010-11  
 Member: Psychology Department Chair Selection Committee (2011-2012)  
 Graduate Education Committee (2004-2012)  
 Acting Chair of Psychology Department (2012-2013)  
 Associate Chair of Psychology and Neuroscience Department (2013-2022)  
 Faculty mentoring committee for Kate Reissner (2013-2022)  
 Faculty mentoring committee for Katie Gates (2013-2022)  
 Faculty mentoring committee for Sylvia Fitting (2015-2022)  
 Neuroscience Major Committee (2016-2017)  
 Psychology and Neuroscience Dept. Undergraduate Academic Advisor (2017-2022)  
 Post tenure review committee, Spring 2017  
 Post tenure review committee, Chair, 2018-2022  
 Search Committee Member: Teaching Faculty (2), Spring 2018  
 Department Diversity Committee (2018-2021; now JEDI Committee)  
 Faculty mentoring committee for Sabrina Robertson (2018-present)  
 Faculty mentoring committee for Keely Muscatell (2019-2022)  
 Undergraduate Education Committee (2019-2022)  
 Neuroscience Major Executive Committee (2019-2022)  
 Co-Chair: Communication and Transparency Subcommittee of Dept. Diversity Committee  
 (2020-2021)  
 Co-Chair: Subcommittee of JEDI Pathways to Graduate School Committee, 2021-2022  
 Chair, Faculty mentoring committee for Jeannie Loeb (2021-2022)  
 Member, Search Committee for Human Resources Specialist: Psychology and  
 Neuroscience, 2021

Member, Search Committee for Executive Assistant to the Chair: Psychology and Neuroscience, 2021  
Chair, Department of Psychology and Neuroscience, 2022-present

Outside Psychology and Neuroscience Department, UNC, Chapel Hill

Committee to form Human Biology Major at UNC (2002-2003)  
UNC Faculty Council: Fall 2000-2003  
University Task Force on Women in Science (2003/04)  
Chair: Student Progress Committee, Curriculum in Neurobiology (2003-2008); Member, 2008-2010.  
Assistant Director for Student Affairs: Curriculum in Neurobiology (2003-2006)  
Evaluation of the Curriculum in Neurobiology/Neuroscience Center Committee: Member (Chair: Bob Duronio): Fall, 2004  
Executive Committee: Curriculum in Neuroscience (2005-present)  
Searle, Scholars, Pew Scholars, and Beckman Young Investigators Selection Committee August, 2006  
University Conflict of Interest Committee (2008)  
Biological and Biomedical Science Program (BBSP) Graduate Admissions (Cell Signaling) Committee, 2008-2009; 2009-2010.  
Search Committee: Director, Curriculum in Neurobiology, Spring 2009  
Steering Committee for UNC Academic Plan (appointed by Provost Carney)  
Neurobiology Qualifying Exam Committee: Katie Cleary (May, 2010)  
Friday Center Review: July 2012  
Research advisory council (for Associate Vice Chancellor for Research) (2014-2016)  
Psychology and Neuroscience User Group (Phase III College's Science Complex)  
Translational Research Building, UNC Medical School, Member: Scientific Advisory Committee (2019)  
Team Advance: Peer Mentoring Circle Facilitator: 2019-2021(2 years)  
Chair, Chapman Family Teaching Award Selection Committee 2020  
NIH FIRST Award (Brain Cluster; co-leader; invited by Terry Magnuson PhD, Vice Chancellor for Research, UNC-CH)

## Teaching Experience

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### Courses Taught

Undergraduate Teaching Experience, Rutgers University

Instructor for:

Conditioning and Learning (3 credits)  
Physiological Psychology Laboratory (1 credit)  
Neuropsychopharmacology Laboratory (1 credit)

Undergraduate Teaching Experience, University of North Carolina, Chapel Hill

Instructor for:

Learning: 3 credits  
Physiological Psychology: 3 credits

Advanced Biopsychology Laboratory: 3 credits

Graduate Teaching Experience, University of North Carolina, Chapel Hill

Instructor for:

Applications of Experimental Psychology to Health Research: 3 credits

Seminar in the Biological Foundations of Psychology: 3 credits

Behavior and its Biological Basis II: 3 credits

Research Seminar in Addiction Science: 3 credits

## **Masters/Dissertation/Undergraduate Honor's Committees**

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Graduate Masters Committees, University of North Carolina, Chapel Hill

Charlie Cook (M.S., Biological Psychology)

Alison Crumling (M.S., Biological Psychology): Chair/Advisor

Kelly Carrigan (M.S., Biological Psychology)

Andrew Barrett (M.S., Biological Psychology)

Jonathon Hollander (M.S. Biological Psychology): Chair/Advisor, May, 2002

Ryan Lanier (M.S. Biological Psychology), July, 2002

Richard Roop (M.S. Biological Psychology): Chair/Advisor, September 2002

Tim Saurer (M.S., Biological Psychology, May 2004)

Dennis Sparta (M.S., Biological Psychology, June 2004)

Danya Hayes (M.S., Biological Psychology, fall 2007)

Jeremy J. Day (M.S., Biological Psychology: Chair/Advisor, December, 2006)

Joshua Jones (M.S., Behavioral Neuroscience: Chair/Advisor, November, 2007)

Emily Lowery (MS. Behavioral Neuroscience: April, 2008)

Angela Sparrow (MS, Behavioral Neuroscience, October, 2008)

Heather Lasseter (MS, Behavioral Neuroscience, Feb, 2009)

Audrey Wells (MS, Behavioral Neuroscience, Sept, 2011)

Courtney Cameron (MS, Behavioral Neuroscience; Chair/Advisor, 2011)

Jon Sugam (MS, Behavioral Neuroscience; Chair/Advisor, 2011)

Jennifer Green (MS, Behavioral Neuroscience, Chair/Advisor, 2012)

Deirdre Sackett (MS, Behavioral and Integrative Neuroscience, Chair/Advisor, 2016)

Ronald Kim (MS, Behavioral and Integrative Neuroscience, 2016)

Rachel Haake (MS, Behavioral and Integrative Neuroscience, Chair/Advisor, 2017)

Shveta Parekh (MS, Behavioral and Integrative Neuroscience, June 2020)

Metika Ngbokoli (MS, Behavioral and Integrative Neuroscience, Chair/Advisor, 2020)

Eden Harder (MS, Behavioral and Integrative Neuroscience, Nov, 2021)

Sophie Bendrath (MS, Behavioral and Integrative Neuroscience, Nov, 2021)

Alexis League (MS, Behavioral and Integrative Neuroscience, Nov, 2021)

Gillian Barkel (MS, Behavioral and Integrative Neuroscience, 2023)

Graduate Dissertation Committees, University of North Carolina, Chapel Hill

Charlie Cook (Ph.D., Biological Psychology; Advisor Mitch Picker)

Juanita Lynn Perez (Ph.D., Biological Psychology: Advisor: Don Lysle)

Dani Smith (Ph.D., Curriculum in Neurobiology: Advisor Michela Gallagher)

Margaret J. VanDoren (Ph.D., Curriculum in Neurobiology: Advisor Leslie Morrow)

Christina Nelson (Ph.D., Biological Psychology; Advisor Don Lysle)  
Kathleen Rosa (Ph.D., Quantitative Psychology; Advisor: Abigail Panter)  
Debbie Lubin (Ph.D., Biological Psychology; Advisor; Joey Johns, 2001)  
Kelly Carrigan (Ph.D., Biological Psychology; Advisor, Donald Lysle, Spring 2002)  
Karen L. Neitzel (Ph.D., Curriculum in Neurobiology; Advisor, Richard Mailman)  
Michael Heien (Ph.D., Chemistry, Advisor: R. Mark Wightman, April 2005)  
Jill Venton (Ph.D., Chemistry; Advisor R. Mark Wightman)  
Amanda Sharko (Ph.D., Pharmacology; Advisor Clyde Hodge, April 2008)  
Garret Stuber (Ph.D., Neurobiology, Co-Advisor with R. Mark Wightman, March 2005)  
Jonathan Hollander (Ph.D., Biological Psychology; Advisor, Regina Carelli, 2006)  
Jay Elliott (Ph.D., Biological Psychology; Advisor: Don Lysle, April 2005)  
Ryan Lanier (Ph.D., Biological Psychology, Advisor: Don Lysle, April 2005)  
Justin Kita (Ph.D., Chemistry; Advisor: R. Mark Wightman, 2008)  
Tim Saurer (Ph.D., Biological Program, Advisor: Don Lysle, Oct, 2007)  
Charles E. Miller, Jr (Ph.D. Chemistry; Advisor: R. Mark Wightman, 2008)  
Rebekah Stevenson (Curriculum in Neurobiology, Advisor: Clyde Hodge, April 2008)  
Dennis Sparta (Biological Psychology, Advisor: Todd Thiele, December 2007)  
Beth Mechlin (Behavioral Neuroscience Program, Advisor: Sue Girdler, Jan, 2009)  
Jeremy J. Day (Behavioral Neuroscience Program, Advisor, Carelli, April 2009)  
Manna Beyene (Curriculum in Neurobiology, Advisor: R. Mark Wightman, Aug 2009)  
Andre Hermans (PhD, Chemistry, Advisor, R. Mark Wightman, Sept, 2007)  
Pavel Takmakov (PhD, Chemistry, Advisor, R. Mark Wightman, 2009)  
Richard B. Keithley (PhD, Chemistry, Advisor, R. Mark Wightman, 2010)  
Angela Sparrow Lyons (PhD, Behavioral Neuroscience, Advisor, Todd Thiele, 2010)  
Dayna Hayes (PhD, Behavioral Neuroscience, Advisor, Todd Thiele, May 2009)  
Joshua Jones (PhD, Behavioral Neuroscience, Advisor, Carelli, April, 2010)  
Alison Wagner (PhD, Behavioral Neuroscience, Advisor: Donald Lysle, 2009)  
Emily Lowery (PhD, Behavioral Neuroscience, Advisor: Todd Thiele, 2011)  
Marty Farrell (PhD, Pharmacology, Advisor: Bryan Roth, 2013)  
Natalie Herr (PhD, Chemistry, Advisor: R. Mark Wightman, 2010)  
Chris Smith (PhD, Curriculum in Neurobiology, Advisor, Charlotte Boettiger, May 2014)  
Heather Lasseter (PhD, Behavioral Neuroscience, Advisor: Rita Fuchs, December, 2011)  
Elyse Dankoski (PhD, Chemistry, Advisor: R. Mark Wightman, May 2014)  
Audrey Wells (PhD, Behavioral Neuroscience, Advisor: Fuchs, November 2013)  
Gretchen Sprow (PhD, Behavioral Neuroscience, Advisor: Thiele, May, 2013)  
Alice Stamatakis (Chair, PhD thesis committee, Neurobiology, Advisor: Stuber, 2014)  
Jon Sugam (PhD, Advisor, Behavioral Neuroscience, August 2013)  
Courtney Cameron (PhD, Advisor, Behavioral Neuroscience, August 2014)  
Jennifer Green (MS, Behavioral Neuroscience, Chair/Advisor, 2015)  
Anna Belle (PhD, Chemistry, Advisor, Wightman, October 2013)  
Kristin Sellers (PhD, Curriculum in Neurobiology, Advisor: Flavio Frohlich, 2016)  
Beth Bucher (PhD, Chemistry, Advisor, Wightman, 2014)  
John Casachuaasa (PhD, Psychology, Advisors: Thiele and Lysle, Fall 2016)  
Lee Hudson (PhD, Psychology, Advisor: Lysle, Fall, 2015)  
Jeff Olney (PhD, Psychology, Advisor: Thiele, Spring 2016)  
Dom Cerri (PhD, Psychology & Neuroscience, Advisor: Carelli, Spring 2016)

Sierra Springfield (PhD, Curr in Neuroscience, Advisor; Donita Robinson, Spring 2017)  
Deirdre Sackett (PhD, Psychology & Neuroscience, Advisor, Carelli, 2018)  
Justin Johnson (PhD, Chemistry, Advisor; R. Mark Wightman, 2017)  
Caddy Hobbs (PhD, Chemistry, Advisor; R. Mark Wightman, 2017)  
Nathan Rodenberg (PhD, Chemistry, Advisor; R. Mark Wightman, 2017)  
Meghan Jones (PhD, Psychology & Neuroscience, Advisor, Lysle, Dec 2017)  
Anze Testen (PhD, Curriculum in Neuroscience, Advisor: Reissner, Dec 2021)  
Heather Decot (PhD, Curriculum in Neuroscience, Advisor: Stuber, Dec 2017)  
Katie Healey (PhD, Psychology & Neuroscience, Advisor: Reissner, Dec 2017)  
Ron Kim (PhD, Psychology & Neuroscience, Advisor, Reissner, Fall, 2019)  
Nathan Burnham (PhD, Psychology & Neuroscience, Advisor: Thiele, Spring, 2019)  
Christina Lebonville (PhD, Psychology & Neuroscience, Advisor: Lysle, Spring 2019)  
Jennifer Youngshin Yi (PhD, Clinical Psychology, Advisor: Daughters, Spring 2019)  
Jacqueline Paniccia (PhD, Psychology & Neuroscience, Advisor, Lysle, Spring 2020)  
Rachel Haake (PhD, Behavioral & Integrative Neurosci, Chair/Advisor, Summer 2021)  
Michel Companion (PhD, Behav & Integrative Neurosci, Advisor, Thiele, Spring 2020)  
Heidi Vuletich (PhD, Social Psychology Program, Advisor: Keith Payne, 2020)  
Metika Ngbokoli (PhD, Behavioral and Integrative Neuroscience, Chair/Advisor, 2022)  
Raelyn Loiselle (PhD, Clinical Program, Advisor: Deborah Jones, May 2022)  
Shveta Parekh (PhD, Behavioral and Integrative Neuroscience, Spring 2022)  
Emily Witt (PhD, Behavioral and Integrative Neuroscience, Spring 2022)  
Alison Marie Schreiber (PhD), Clinical Psychology Program, 2022)  
Ian Jacobs (PhD), Behavioral and Integrative Neuroscience Program, Dec 2022)  
Alexis League (PhD, Behavioral and Integrative Neuroscience, May 2023)  
Grace Ross (PhD, Curriculum in Neuroscience, Advisor: Frohlich, pending)  
Eden Harder (PhD, Behavioral and Integrative Neuroscience Program, pending)

#### Graduate Masters, Dissertation Committees, National (outside UNC)

Robert C. Twining (Ph.D. Neuroscience Program, Milton S. Hershey Medical Center, College of Medicine, Hershey, PA: Advisor Patricia S. Grigson, Ph.D., 2007).  
Yvette Peters (Ph.D. Neuroscience Program, Albany Medical College, Albany, NY; Advisor: Patricio O'Donnell, Ph.D., 2004)  
Aya Sasaki (Masters, Neurobiology Program, Duke University, Advisor: Erich Jarvis, Ph.D., 2002)  
Janaina Pantoja (PhD. Neurobiology Program, Duke University, Advisor: Miguel A.L. Nicolelis, MD, PhD, October, 2009)  
Jeffrey Klein (PhD. Neurobiology Program, Duke University, Advisor: Michael Platt, PhD, April 2010)  
Karl Schmidt (Neuroscience Program, Emory University, Advisor: David Weinshenker; December, 2016)

#### Undergraduate Honors Committees, University of North Carolina, Chapel Hill

Andrew Barrett (B.S. Honor's thesis)  
Beverly Allan (B.S. Honor's thesis): Chair/Advisor  
Jefferson Williams (B.S. Honor's thesis: 2001): Chair/Advisor  
Sherilyn Black (B.S. Honor's thesis: 2001)

Emily Roach (B.S. Honor's thesis: 2001)  
Erica Bowton (B.S. Honor's thesis: 2003)  
Kate Wassum (B.S. Honor's thesis: 2004; Chair with Joseph Cheer)  
Shin-Yi Lao (B.S. Honor's thesis: 2005; Chair with Donita Robinson)  
Hannah Bishop (B.S. Honor's thesis: 2007; Chair with Franck Polleux)  
Alice Stamatakis (B.S. Honor's thesis; Chair, Carelli, April 2010)  
Erica Ludi (B.S. Honor's thesis; Chair, Donald Rosenstein, April 2010)  
Robert Edmiston (Honor's thesis, Carelli mentor, 2012-2013)  
Heather Ortega (Honor's thesis, Carelli mentor, 2017-2018; J. Steven Reznick Diversity and Psychological Research Grant, Honorable Mention).  
Maxwell Levinson (B.S. Neuroscience Honor's thesis; Carelli mentor), April 2023  
Hyejung Hwang (B.S. Neuroscience Honor's thesis; Carelli mentor), pending

## **Supervision of Research**

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### Supervision of Undergraduate Research, University of North Carolina, Chapel Hill

Beverly Allen: Psychology 98/99: 3 semesters (Psychology Honor's research)  
Recipient of the James Henley Thompson and Evelyn Barnett Thompson Undergraduate Research Award, 1998-99 (\$500).  
Recipient of the David Bray Peele Memorial Research Fund, 1999 (\$200)  
Dhritiman Mukherjee- Psychology 98 (2 semesters and summer)  
Richard Roob- Psychology 98 (2 semesters and summer)  
Jefferson Williams- Psychology 98/99 (Psychology Honor's research)  
Sherilyn Black- Psychology 98 (1 semester)  
Amy Callihan- Psychology 98 (Fall 2001)  
Sarah Cristiani – Psychology 98 (1 semester- Spring 2002)  
Jennifer Ariansen- Psychology 98 (1 semester, Spring 2003)  
Joyce Wondolowski (work-study student; after graduation became a Res. Tech III)  
Nate Cleaveland- Biology student (after graduation became a Res. Tech III-present)  
Kate Wassum (Psychology Honor's student: 2004; co-mentor with Joseph Cheer)  
Shin-Yi Lao (Psychology Honor's student: 2005; co-mentor with Donita Robinson)  
Hunter Holloway (2008: co-mentor with Donita Robinson)  
Alice Stamatakis (Carelli, mentor, 2009-2010)  
Lisa Fields (Carelli mentor, summer 2010)  
Robert Edmiston (Carelli mentor, Spring/Summer 2011/2012)  
Aimee Rogers (Carelli mentor, Fall, 2011)  
Robert Edmiston (Carelli/Saddoris mentors; Undergraduate Honors Project, 2012-2013)  
Douglas Terry (Carelli/Saddoris mentors, 2013-2014; Carelli/Moschak mentors, 2015)  
Conner Gallimore (Carelli/Hurley, 2016-present)  
Heather Ortega (McNair Scholar, 2017-present; Carelli/West mentors)  
Alex Vergara (UNC-CH, Chancellor's Science Scholars Program; Carelli/Hurley mentors for Psyc 395, spring 2018)  
Nirvana Walton (SOLAR; Summer of Learning and Research student, Summer 2018)  
Paul Edwards (with Rachel Haake)  
Lewis Radford (with Seth Hurley)  
Caitlin Nygren (with Travis Moschak)

Inia Muthukumaren (2019; with Travis Moschak)  
Nivi Ramasamy (2020; with Flavio Frohlich)  
Maxwell Levinson (2021-2023, with Joaquin Douton; NSCI Honors)  
Kathy Nguyen (2021-2022)  
Hyejung Hwang (2022-present)  
Ximena Diez (2022-present)  
Sriya Chalasani (2023-present)

Supervision of Graduate Research, University of North Carolina, Chapel Hill

Alison Crumling- Masters student in Biological Psychology Program  
Lee Gray- Medical Student- UNC (sponsor for NIH Short-term student research award)  
Karen Neitzel- Neurobiology graduate student (laboratory rotation, Fall 1998)  
Jonathan Hollander- Biological Psychology Grad. Student (Fall 2000-2005)  
Richard Roop- Biological Psychology Graduate Student (Fall 2000-2002: Advisor)  
Garret Stuber- Neurobiology Graduate Student (Spring 2001-graduated spring 2005:  
Advisor; completed post doc with Antonello Bonci, Gallo Institute; currently  
Assistant Professor, Dept. Psychiatry, UNC, Chapel Hill)  
Jennifer Hillman- Neurobiology Graduate Student (laboratory rotation, Fall 2002)  
Jeremy Day- Biological Psychology Graduate Student (2004-2009)  
Joshua Jones- Biological Psychology Graduate Student (2005-2010)  
Manna Beyene – Curriculum in Neurobiology- joint mentor with R. Mark Wightman  
Sarah Taves- Curriculum in Neurobiology (lab rotation, Fall 2005)  
Rebecca Balter- Curriculum in Neurobiology (lab rotation, Spring 2008)  
Courtney Cameron – Behavioral Neuroscience Graduate Student (2008-2014)  
Jonathan Sugam– Behavioral Neuroscience Graduate Student (2008-2013)  
Jennifer Green- Behavioral Neuroscience Graduate Student (2009-2015)  
Domenic Cerri, Behavioral Neuroscience Graduate Student (2010-May 2016)  
Mark Presker, Behavioral Neuroscience Graduate Student (2014-2015)  
Deirdre Sackett, Behavioral and Integrative Neuroscience Graduate Student (2013 - 2018)  
Rachel Haake, Behavioral and Integrative Neuroscience Graduate Student (2015- 2021)  
Metika Ngbokoli, Behavioral & Integrative Neuroscience Graduate Student (2017-2022)  
Louisa Kane, Dual Program; Clinical and BIN (with Stacey Daughters) (2019-2021)  
Grace Ross, BBSP Rotation (Spring 2021)  
Pedro Rodriguez-Echemendia (2021-present)  
Elijah Grablin (2022-present)

Supervision of Postdoctoral Research/Mentor for Research Assistant Prof, UNC, Chapel Hill

Paul E. Phillips: Post doctoral student in Chemistry & Psychology (2001-2004); currently  
is a tenured Associate Professor at The University of Washington.  
Mitchell Roitman: Post doctoral student in Psychology (2001-2004). Research Assistant  
Professor of Psychology (2004-2006). 2006-present, currently is a tenured  
Associate Professor in Psychology at the University of Illinois at Chicago (UIC)  
Robert Wheeler: Post doctoral student in Psychology (2003-2008). Research Assistant  
Professor in Psychology (2008-2010). Currently Assistant Professor at Marquette.  
Yvette Peters: Post doctoral student in Psychology (2004-2005)



Brandon Aragona: Postdoctoral student in Chemistry & Psychology (co-advisor with R.M. Wightman, 2005-2008). Currently, Associate Professor, University of Michigan, Psychology Dept (2008-present)

Joseph Cheer: Postdoctoral student, Chemistry (advisor: R.M. Wightman, 2003-2006), currently Professor at University of Maryland Medical Center

Catrina (Nina) Owesson-White: Postdoctoral student in Chemistry & Psychology (co-advisor with R.M. Wightman, 2005-2010). Currently Research Assistant Professor in Chemistry

Donita L. Robinson: Research Assistant Professor, Psychiatry. Research conducted in my laboratory, for mentored K award, 2004-2006). Currently, Professor in Psychiatry, Bowles Alcohol Center, UNC, Chapel Hill

Fabio Cacciapaglia: Post doctoral student in Chemistry & Psychology (co-advisor with R.M. Wightman, 2005-2011) Currently employed at Harvard Apparatus, Boston, MA.

Michael Sadoris: Postdoctoral student in Psychology, 2008-2014. Currently tenure-track Assistant Professor in the Psychology Department at the University of Colorado, Boulder.

Erin Kerfoot; Postdoctoral student in Psychology, 2009-2011.

Elizabeth West: Postdoctoral student in Psychology and Neuroscience, 2012-2019; currently Assistant Professor (tenure track) at Rowan University.

Travis Moschak: Postdoctoral student in Psychology and Neuroscience, 2014- 2020; Currently an Assistant Professor (tenure track) at University of Texas, El Paso.

Seth Hurley; Postdoctoral student in Psychology and Neuroscience, 2015-2020. Fellow at the National Artificial Intelligence Institute at the Department of Veteran's Affairs in Washington, DC. Current position: Medical Writer; MedThink.

Joaquin Douton, PhD. Current postdoctoral fellow (2020-present)

## Peer-Reviewed Research Publications

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1. Wagner GC, Carelli RM, Jarvis MJ (1985) Pretreatment with ascorbic acid attenuates the neurotoxic effects of methamphetamine in rats. *Research Communications in Chemical Pathology and Pharmacology*, 47(2): 221-228.
2. Wagner GC, Jarvis MF, Carelli RM (1985) Ascorbic acid reduces the dopamine depletion induced by MPTP. *Neuropharmacology*, 24(12): 1261-1262.
3. Wagner GC, Carelli RM, Jarvis MF (1986) Ascorbic acid reduces the dopamine depletion induced by methamphetamine and the 1-methyl-4-phenyl pyridinium ion. *Neuropharmacology*, 25(5): 559-561.
4. Wagner GC, Carelli RM (1987) Effects of fluprazine (DU27716) and ethanol on target biting behavior and intruder-evoked attacks. *Psychopharmacology*, 91: 193-197.
5. Carelli RM, Wagner GC (1988) The effects of repeated administration of fluprazine on target biting and intruder-evoked attacks. *Psychopharmacology*, 95: 476-481.

6. O'Neill KA, Carelli RM, Jarvis MF, Liebman JM (1989) Hyperactivity induced by N-Methyl-d-Aspartate injections into nucleus accumbens: lack of evidence for mediation by dopaminergic neurons. *Pharmacology, Biochemistry and Behavior*, 34: 739-745.
7. West MO, Carelli RM, Cohen SM, Gardner JP, Pomerantz M, Chapin JK, Woodward DJ (1990) Single units in the dorsolateral striatum of the rat are correlated with specific locomotor limb movements. *Journal of Neurophysiology*, 64(4): 1233-1246.
8. Carelli RM, West MO (1991) Representation of the body by single units in the dorsolateral striatum of the freely moving rat. *The Journal of Comparative Neurology*, 309: 231-249.
9. Tomie A, Carelli RM, Wagner GC (1993) Negative correlation between tone (S-) and water increases target biting during S- in rats. *Animal Learning and Behavior*, 21(4): 355-359.
10. Carelli RM, King VC, Hampson RE, Deadwyler SA (1993) Firing patterns of nucleus accumbens neurons during cocaine self-administration in rats. *Brain Research*, 626: 14-22.
11. Carelli RM, Deadwyler SA (1994) A comparison of nucleus accumbens neuronal firing patterns during cocaine self-administration and water reinforcement in rats. *The Journal of Neuroscience*, 14(12): 7735-7746.
12. Carelli RM, Deadwyler SA (1996) Dose-dependent transitions in nucleus accumbens cell firing and behavioral responding during cocaine self-administration sessions in rats, *The Journal of Pharmacology and Experimental Therapeutics*, 277(1): 385-393.
13. Carelli RM, Deadwyler SA (1996) Dual factors controlling the activity of nucleus accumbens cell firing during cocaine self-administration, *Synapse*, 24: 308-311.
14. Carelli RM, Wolske M, West MO (1997) Loss of lever-press related firing of rat striatal forelimb neurons after repeated sessions in a lever pressing task. *The Journal of Neuroscience*, 17(5): 1804-1814.
15. Carelli RM, Deadwyler SA (1997) Cellular mechanisms underlying reinforcement-related processing in the nucleus accumbens: Electrophysiological studies in behaving animals. *Pharmacology, Biochemistry and Behavior*, 57(3): 495-504.
16. Carelli RM, Ijames S, Konstantopoulos J, Deadwyler SA (1999) Examination of factors mediating the transition to behaviorally correlated nucleus accumbens cell firing during cocaine self-administration sessions in rats. *Behavioral Brain Research*, 104: 127-139.
17. Carelli RM (2000) Activation of accumbens cell firing by stimuli associated with cocaine delivery during self-administration, *Synapse*, 35: 238-242.
18. Grigson PS, Twining RC, Carelli RM (2000) Heroin-induced suppression of saccharin intake in water-deprived and water-replete rats. *Pharmacology, Biochemistry & Behavior*, 66(3): 603-608.

19. Carelli RM, Ijames S (2000) Nucleus accumbens cell firing during maintenance, extinction, and reinstatement of cocaine self-administration behavior in rats. *Brain Research*, 866: 44-54.
20. Carelli RM, Ijames S, Crumling A (2000) Evidence that separate neural circuits in the nucleus accumbens encode cocaine versus 'natural' (water and food) reward, *The Journal of Neuroscience*, 20(11): 4255-4266.
21. Carelli RM, Ijames SG (2001) Selective activation of accumbens neurons by cocaine-associated stimuli during a water/cocaine multiple schedule, *Brain Research*, 907(1-2): 156-161.
22. Roop RG, Hollander J, Carelli RM (2002) Accumbens activity during a multiple schedule for water and sucrose reinforcement in rats, *Synapse*, 43: 223-226.
23. Hollander J, Ijames SG, Roop RG, Carelli RM (2002) An examination of nucleus accumbens cell firing during extinction and reinstatement of water reinforcement behavior in rats, *Brain Research*, 929: 226-235.
24. Lanier R, Ijames SG, Carrigan KA, Carelli RM, Lysle DT (2002) Self-administration of heroin induces alterations of inducible nitric oxide synthase, *Drug and Alcohol Dependence*, 66(3): 225-233.
25. Carelli RM (2002) Nucleus accumbens cell firing during goal-directed behaviors for cocaine versus 'natural' reinforcement. *Physiology & Behavior*, 76(3): 379-387.
26. Carelli RM (2002) The nucleus accumbens and reward: Neurophysiological investigations in behaving animals. *Behavioral and Cognitive Neuroscience Reviews*, 1(4): 281-296.
27. Phillips PE, Robinson DL, Stuber GD, Carelli RM, Wightman RM (2003) Real-time measurements of phasic changes in extracellular dopamine concentration in freely moving rats by fast-scan cyclic voltammetry. *Methods Mol Med.*, 79:443-64.
28. Phillips PEM, Stuber GD, Heien MLAV, Wightman RM, Carelli RM (2003) Subsecond dopamine release promotes cocaine seeking, *Nature*, 422(6932):614-618.
29. Carelli RM, Williams JG, Hollander J (2003) Basolateral amygdala neurons encode cocaine self-administration and cocaine-associated cues. *The Journal of Neuroscience*, 23: 8204-8211.
30. Carelli RM, Wondolowski J (2003) Selective encoding of cocaine versus natural rewards by nucleus accumbens neurons is not related to chronic drug exposure. *The Journal of Neuroscience*, 23: 11214-11223.
31. Roitman MF, Stuber GD, Phillips PEM, Wightman RM, Carelli RM (2004) Dopamine operates as a subsecond modulator of food seeking. *The Journal of Neuroscience*, 24, 1265-1271.
32. Carelli RM (2004) Nucleus accumbens cell firing and rapid dopamine signaling during goal-directed behaviors in rats. *Neuropharmacology*, 47S1: 180-189.

33. Carelli RM, Wightman RM (2004) Functional microcircuitry in the accumbens underlying drug addiction: insights from real-time signaling during behavior. *Current Opinion in Neurobiology*, 14(6):763-768.
34. Stuber GD, Roitman MF, Phillips PEM, Carelli RM, Wightman RM (2005) Rapid dopamine signaling in the nucleus accumbens during contingent and non-contingent cocaine administration. *Neuropsychopharmacology*, 30(5):853-863.
35. Roitman MF, Wheeler RA, Carelli RM (2005) Accumbens cell firing is innately tuned to rewarding and aversive taste stimuli, encode their predictors and are linked to motor output. *Neuron*, 45: 587-597.
36. Peters Y, O'Donnell P, Carelli RM (2005) Prefrontal cortical cell firing during maintenance, extinction and reinstatement of goal-directed behavior for natural reward. *Synapse*, 56:74-83.
37. Stuber GD, Wightman RM, Carelli RM (2005) Extinction of cocaine self-administration reveals functionally and temporally distinct dopaminergic signals in the nucleus accumbens. *Neuron*, 46(4): 661-669.
38. Hollander JA, Carelli RM (2005) Abstinence from cocaine self-administration heightens neural encoding of goal-directed behaviors in the accumbens. *Neuropsychopharmacology*, 30: 1464-1474.
39. Allen RM, Carelli RM, Dykstra LA, Suchey TL, Everett CV (2005) Effects of the competitive NMDA receptor antagonist, (-)-6-phosphonomethyl -deca-hydroisoquinoline-3-carboxylic acid (LY235959), on responding for cocaine under both fixed and progressive ratio schedules of reinforcement. *The Journal of Pharmacology and Experimental Therapeutics*, 315(1):449-457.
40. Wheeler RA, Roitman MF, Grigson PS, Carelli RM (2005) Single neurons in the nucleus accumbens track relative reward. *International Journal of Comparative Psychology*, 18: 320-332.
41. Cheer JF, Heien MLAV, Garris PA, Carelli RM, Wightman RM (2005) Simultaneous dopamine and single-unit recordings reveal accumbens GABAergic responses: Implications for intracranial self-stimulation. *Proceedings of the National Academy of Sciences*, 102(52):19150-19155.
42. Carelli RM, Wondolowski J (2006) Anatomic distribution of reinforcer selective cell firing in the core and shell of the nucleus accumbens. *Synapse*, 59(2): 69-73.
43. Day JJ, Wheeler RA, Roitman MF, Carelli RM (2006) Nucleus accumbens neurons encode Pavlovian approach behaviors: Evidence from an autoshaping paradigm. *European Journal of Neuroscience*, 23(5):1341-1351.
44. Wheeler RA, Carelli RM (2006) The neuroscience of pleasure: Focus on Ventral pallidum firing codes hedonic reward: when a bad taste turns good. *Journal of Neurophysiology*, 96(5):2175-2176.

45. Aragona BJ, Carelli RM (2006) Dynamic Neuroplasticity and the Automation of Motivated Behavior. *Learning and Memory*, 13(5):558-559.
46. Day JJ, Carelli RM (2007) The Nucleus Accumbens and Pavlovian Reward Learning. Invited review for *The Neuroscientist*, 13(2):148-59.
47. Allen RM, Dykstra LA, Carelli RM (2007) Continuous exposure to the competitive N-methyl-D-aspartate receptor antagonist, LY235959, facilitates escalation of cocaine consumption in Sprague-Dawley rats. *Psychopharmacology*, 191(2):341-351.
48. Hollander JA, Carelli RM (2007) Cocaine-associated stimuli increase cocaine-seeking and activate accumbens core neurons following abstinence. *The Journal of Neuroscience*, 27(13):3535-3539.
49. Cheer JF, Aragona BJ, Heien MLAV, Seipel AT, Carelli RM, Wightman RM (2007) Coordinated accumbal dopamine release and neural activity drive goal-directed behavior. *Neuron*, 54(2):237-244.
50. Day JJ, Roitman MF, Wightman RM, Carelli RM (2007) Associative learning mediates dynamic shifts in dopamine signaling within the nucleus accumbens. *Nature Neuroscience*, 10(8):1020-1028.
51. Wightman, RM, Heien M, Wassum KM, Sombers LA, Aragona BJ, Khan AS, Ariansen JL, Cheer JF, Phillips PE, Carelli RM. (2007) Dopamine release is heterogeneous within microenvironments of the rat nucleus accumbens. *European Journal of Neuroscience*, 26(7): 2046-2054.
52. Carelli RM (2008) Drug addiction: behavioral neurophysiology. In Larry R. Squire, Editor-in-Chief, *Encyclopedia of Neuroscience*, Academic Press, Oxford.
53. Jones JL, Wheeler RA, Carelli RM (2008) Behavioral responding and nucleus accumbens cell firing are unaltered following periods of abstinence from sucrose. *Synapse*, 62(3):219-28.
54. Wheeler RA, Twining RC, Jones JJ, Slater JM, Grigson PS, Carelli RM (2008) Behavioral and electrophysiological indices of negative affect predict cocaine self-administration, *Neuron*, 57, 774-785.
55. Day JJ, Carelli RM (2008) Methamphetamine induces chronic corticostriatal depression: Too much of a bad thing. *Neuron*, 58(1):6-7.
56. Owesson-White CA, Cheer JF, Beyene M, Carelli RM, Wightman RM (2008) Dynamic changes in accumbens dopamine linked to learning of intra-cranial self-stimulation. *Proceedings of the National Academy of Sciences*, 105(33):11957-62. PMID: PMC2575325.

57. Chen BT, Bowers MS, Martin M, Woodward Hopf F, Guillory AM, Chou JK, Carelli RM, Bonci A (2008) Cocaine but not natural reward self-administration nor passive cocaine injection produces persistent LTP in the VTA. *Neuron*, 59(2):288-97. PMID: PMC2593405.
58. Wheeler RA, Carelli RM (2009) Dissecting motivational circuitry to understand substance abuse. *Neuropharmacology*. 56 Suppl 1:149-59. PMID: PMC2771685.
59. Aragona BJ, Cleaveland NA, Stuber GD, Day JJ, Carelli RM, Wightman RM (2008) Preferential enhancement of dopamine transmission within the nucleus accumbens shell by cocaine is due to a direct increase in phasic dopamine release events. *The Journal of Neuroscience*, 28(35):8821-31. PMID: PMC2584805.
60. Robinson DL, Carelli RM (2008) Distinct subsets of nucleus accumbens neurons encode operant responding for ethanol versus water. *The European Journal of Neuroscience*, 28(9):1887-1894. PMID: PMC2597565.
61. Herr NR, Kile B, Carelli RM, Wightman RM (2008) Electroosmotic flow and its contribution to iontophoretic delivery. *Analytical Chemistry*, 80(22):8635-8641. PMID: PMC2772194.
62. Roitman MF, Wheeler RA, Wightman RM, Carelli RM (2008) Real-time chemical responses in the nucleus accumbens differentiate rewarding and aversive stimuli. *Nature Neuroscience*, 11(12):1376-1377. PMID: PMC3171188.
63. Sombers L, Beyene M, Carelli RM, Wightman RM (2009) Synaptic overflow of dopamine in the nucleus accumbens arises from neuronal activity in the ventral tegmental area. *The Journal of Neuroscience*, 29(6):1735-42. PMID: PMC2673986.
64. Owesson-White CA, Ariansen J, Stuber G, Cleaveland N, Cheer JF, Wightman RM, Carelli RM (2009) Neural encoding of cocaine seeking behavior is coincident with phasic dopamine release in the accumbens core and shell. *The European Journal of Neuroscience*, 30(6):1117-27. PMID: PMC3107700.
65. Aragona BJ, Day JJ, Roitman MF, Cleaveland NA, Wightman RM, Carelli RM (2009). Regional specificity in the real-time development of phasic dopamine transmission patterns during acquisition of a cue-cocaine association in rats. *The European Journal of Neuroscience*. 30(10):1889-99. PMID: PMC2945681.
66. Jones JL, Day JJ, Aragona BJ, Wheeler RA, Wightman RM, Carelli RM (2010) Basolateral amygdala modulates terminal dopamine release in the nucleus accumbens and conditioned responding. *Biological Psychiatry*, 67(8):737-44. PMID: PMC2849914.
67. Day JJ, Jones JL, Wightman RM, Carelli RM (2010) Phasic nucleus accumbens dopamine release encodes reward cost during effort-related decision making. *Biological Psychiatry*, 68(3):306-309. PMID: PMC2907444.

68. Jones JL, Day JJ, Wheeler RA, Carelli RM (2010) The basolateral amygdala differentially regulates conditioned neural responses within the nucleus accumbens core and shell. *Neuroscience*, 169(3):1186-1198. PMID: PMC3206589.
69. Park J, Aragona BJ, Kile BM, Carelli RM, Wightman RM (2010) *In vivo* voltammetric monitoring of catecholamine release in subterritories of the nucleus accumbens shell. *Neuroscience*, 169(1):132-42. PMID: PMC2900378.
70. Keithley RB, Carelli RM, Wightman RM (2010) Rank estimation and the multivariate analysis of in vivo fast-scan cyclic voltammetric data. *Analytical Chemistry*, 82(13):5541-51. PMID: PMC2895304.
71. Beyene M, Carelli RM, Wightman RM (2010) Cue-evoked dopamine release in the nucleus accumbens tracks reinforcer magnitude during intracranial self-stimulation. *Neuroscience*, 169(4):1682-8. PMID: PMC2918713.
72. Roitman MF, Wheeler RA, Tiesinga THE, Roitman JD, Carelli RM (2010) Hedonic and nucleus accumbens neural responses to a natural reward are regulated by aversive conditioning. *Learning and Memory*, 17(11):539-46. PMID: PMC2981416.
73. Herr NR, Daniel KB, Belle A, Carelli RM, Wightman RM (2010) Probing pre-synaptic regulation of dopamine release with iontophoresis. *ACS Chem Neurosci.*, 1(9):627-638. PMID: PMC2974175.
74. Day JJ, Jones JL, Carelli RM (2011) Nucleus accumbens neurons encode predicted and ongoing reward costs. *The European Journal of Neuroscience*, 33(2):308-21. PMID: PMC3350310.
75. Wheeler RA, Aragona BJ, Fuhrmann KA, Day JJ, Jones JJ, Wightman RM, Carelli RM (2011) Cocaine cues drive opposing context-dependent shifts in reward processing and emotional state, *Biological Psychiatry*, 69(11):1067-74. PMID: PMC3090459.
76. Cacciapaglia F, Wightman RM, Carelli RM (2011) Rapid dopamine signaling differentially modulates distinct microcircuits within the nucleus accumbens during sucrose-directed behavior. *The Journal of Neuroscience*, 31(39):13860-9. PMID: PMC3197228.
77. Saddoris, MP, Stamatakis A, Carelli RM (2011) Neural correlates of Pavlovian-to-Instrumental transfer in the nucleus accumbens shell are selectively potentiated following cocaine self-administration. *The European Journal of Neuroscience*, 33(12):2274-87. PMID: PMC3655808.
78. Takmakov P, McKinney CJ, Carelli RM, Wightman RM (2011) Instrumentation for fast-scan cyclic voltammetry combined with electrophysiology for behavioral experiments in freely moving animals. *Review of Scientific Instruments*, 82(7):074302. PMID: PMC3160449.
79. Herr NR, Park J, McElligott A, Belle A, Carelli RM, Wightman RM (2012). *In Vivo* voltammetry monitoring of electrically evoked extracellular norepinephrine in subregions of the

bed nucleus of the stria terminalis. *Journal of Neurophysiology*. 107(6):1731-7. PMID: PMC3311672.

80. Sugam JA, Day JJ, Wightman RM, Carelli RM (2012) Phasic nucleus accumbens dopamine encodes risk-based decision-making behavior. *Biological Psychiatry*. 71(3):199-205, PMID: PMC3253943.

81. Park J, Wheeler RA, Fontillas K, Keithley RB, Carelli RM, Wightman RM (2012) Catecholamines in the bed nucleus of the stria terminalis reciprocally respond to reward and aversion. *Biological Psychiatry*. 71(4):327-34, PMID: PMC3264809.

82. Owesson-White C, Roitman MF, Sombers L, Belle A, Keithley R, Peele J, Carelli RM, Wightman RM (2012) Sources contributing to the average basal concentration of dopamine in the nucleus accumbens. *Journal of Neurochemistry*. 121(2):252-62. PMID: PMC3323736.

83. Cacciapaglia F, Wightman RM, Carelli RM (2012) Differential dopamine release dynamics in the nucleus accumbens core and shell track distinct aspects of goal-directed behavior for sucrose. *Neuropharmacology*, 62(5-6):2050-6. PMID: PMC3433749.

84. Cameron CM, Carelli RM (2012) Cocaine abstinence alters nucleus accumbens cell firing dynamics during goal-directed behaviors for cocaine and sucrose. *The European Journal of Neuroscience*. 35(6):940-51. PMID: PMC3674635.

85. Park J, Bucher ES, Fontillas K, Owesson-White C, Ariansen JL, Carelli RM., Wightman RM (2012) Opposing Catecholamine Changes in the Bed Nucleus of the Stria Terminalis during Intracranial Self-Stimulation and its Extinction. *Biological Psychiatry*. 74(1):69-76. PMID: PMC3609919.

86. Sugam JA, Carelli RM (2013) Rolling the dice: the importance of mesolimbic dopamine signaling in risky decision making. *Neuropsychopharmacology*, Invited "Hot Topic" Review, 38(1): 248. PMID: PMC3521977.

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92. Beyene M, Owesson-White CA, Carelli RM, Wightman RM (2007) Alterations in reward magnitude during ICSS: Effects on cue-evoked dopamine release in the nucleus accumbens. *Society for Neuroscience Abstract*, San Diego, CA.
93. Owesson-White CA, Beyene M, Carelli RM, Cheer J, Wightman RM (2007) Cue-evoked dopamine during ICSS follows expectations for a learning signal. *Society for Neuroscience Abstract*, San Diego, CA.
94. Wheeler RA, Jones JL, Day JJ, Carelli RM (2007) Gustatory cues elicit a negative affective state that is linked to cocaine self-administration. *Society for Neuroscience Abstract*, San Diego, CA.
95. Aragona BJ, Cleaveland NA, Day JJ, Carelli RM, Wightman RM (2007) Dopamine transporter and autoreceptor regulation of phasic dopamine release within the nucleus accumbens core and shell. *Society for Neuroscience Abstract*, San Diego, CA.
96. D.L. Robinson, R.M. Carelli (2008) Dopamine transients are time-locked to aspects of operant ethanol self-administration in the ventral striatum of rats. *Research Society on Alcoholism Abstracts*.

97. Beyene M, Carelli RM, Wightman RM (2008) Adaptive fluctuations in cue-evoked dopamine release follow alterations in reward magnitude. *Monitoring Molecules in Neuroscience, Proceedings of the 12<sup>th</sup> International Conference on In Vivo Methods*, University of British Columbia, Vancouver, Canada, August 10-14.
98. Jones, JL, Aragona BJ, Wheeler RA, Day JJ, Wightman RM, Carelli RM (2008). Basolateral amygdala regulation of phasic dopamine signaling within the nucleus accumbens. *Monitoring Molecules in Neuroscience, Proceedings of the 12<sup>th</sup> International Conference on In Vivo Methods*, University of British Columbia, Vancouver, Canada, August 10-14.
99. Day JJ, Jones JL, Wightman RM, Carelli RM (2008) Role of phasic nucleus accumbens dopamine in effort-related decision making. *Monitoring Molecules in Neuroscience, Proceedings of the 12<sup>th</sup> International Conference on In Vivo Methods*, University of British Columbia, Vancouver, Canada, August 10-14, 2008.
100. Beyene M, Sombers LA, Carelli RM, Wightman RM (2008) Behavioral and Electrochemical Indices of Afferent Modulation of Cue-Evoked Dopamine Release in the Nucleus Accumbens. NIDA's satellite mini-convention "Frontiers in Addiction Research" at the Society for Neuroscience annual meeting, Washington DC.
101. Herr NR, Kile B, Daniel KB, Carelli RM, Wightman RM (2008) Moving closer toward quantitative iontophoresis using electrochemistry, HPLC, and capillary electrophoresis. *Society for Neuroscience Abstract*, Washington DC.
102. Beyene M, Sombers LA, Carelli RM, Wightman RM (2008) Behavioral and electrochemical indices of afferent modulation of cue-evoked dopamine release in the nucleus accumbens. *Society for Neuroscience Abstract*, Washington DC.
103. Wheeler RA, Fuhrmann KA, Aragona BJ, Wightman RM, Carelli RM (2008) Rewarding and aversive stimuli differentially modulate dopamine release in the nucleus accumbens core and shell. *Society for Neuroscience Abstract*, Washington DC.
104. Aragona BJ, Day JJ, Cleaveland NA, Roitman MF, Wightman RM, Carelli RM (2008) Real-time dopamine transmission within the nucleus accumbens core and shell during early acquisition of a cue-cocaine association. *Society for Neuroscience Abstract*, Washington DC.
105. Jones JL, Aragona BJ, Wheeler RA, Day JJ, Wightman RM, Carelli RM (2008) Basolateral amygdala regulation of phasic dopamine signaling within the nucleus accumbens. *Society for Neuroscience Abstract*, Washington DC.
106. Day JJ, Jones, JL, Carelli RM (2008) Nucleus accumbens neurons encode both predicted and expended response costs during effort-based decision making. *Society for Neuroscience Abstract*, Washington DC.

107. Cacciapaglia F, Owesson-White C, Wheeler RA, Wightman RM, Carelli RM (2008) Nucleus accumbens cell firing and rapid dopamine release during food-seeking behavior in rats. Society for Neuroscience Abstract, Washington DC.
108. Owesson-White AC, Ariansen JL, Cheer JF, Wightman RM, Carelli RM (2008) Simultaneous electrophysiological and electrochemical measurements reveal coordinated dopamine release and neural activity in the nucleus accumbens during cocaine self-administration in rats. Society for Neuroscience Abstract, Washington DC.
109. Saddoris M, Carelli RM (2009) Complementary neural correlates of Pavlovian-to-instrumental transfer in nucleus accumbens core and shell. Society for Neuroscience Abstract, Chicago, IL.
110. Cacciapaglia F, Wheeler RA, Day JJ, Jones JL, Wightman RM, Carelli RM (2009) Characterization of nucleus accumbens cell firing and rapid dopamine release during sucrose-seeking behavior. Society for Neuroscience Abstract, Chicago, IL.
111. Jones JL, Day JJ, Wheeler RA, Wightman RM, Carelli RM (2009) Examination of amygdala regulation of sub-region specific nucleus accumbens dopamine. Society for Neuroscience Abstract, Chicago, IL.
112. Sugam JA, Day JJ, Wightman RM, Carelli RM (2009) Phasic mesolimbic dopamine signaling tracks subjective preferences and prediction errors during value-based decision making. Society for Neuroscience Abstract, Chicago, IL.
113. Day JJ, Jones, JL, Wightman RM, Carelli RM (2009) Phasic nucleus accumbens dopamine release encodes reward cost during effort-related decision making. Society for Neuroscience Abstract, Chicago, IL.
114. Cameron CM, Briley JD, Wheeler RA, Carelli RM (2009) Electrophysiological encoding of negative affect and its relationship to nucleus accumbens activity during cocaine seeking. Society for Neuroscience Abstract, Chicago, IL.
115. Herr NR, Carelli RM, Wightman RM (2009) Probing striatal dopamine function with quantitative iontophoresis and fast-scan cyclic voltammetry. Society for Neuroscience Abstract, Chicago, IL.
116. Cameron CM, Wheeler RA, Carelli RM (2010) Encoding of cocaine and natural (sucrose) rewards by nucleus accumbens neurons is altered following cocaine abstinence. Society for Neuroscience Abstract, San Diego, CA.
117. Cacciapaglia F, Wheeler RA, Wightman RM, Carelli RM (2010) Simultaneous measurement of rapid dopamine signaling and nucleus accumbens neural activity during presentations of rewarding and aversive taste stimuli. Society for Neuroscience Abstract, San Diego, CA.

118. Green JL, Briley JD, Wheeler RA, Carelli RM (2010) Accumbens neurons differentially encode information about aversive cues that predict cocaine availability and cocaine-seeking during self-administration. Society for Neuroscience Abstract, San Diego, CA.
119. Jones, JL, Briley, JD, Carelli RM (2010) The basolateral amygdala modulates the encoding of cocaine-seeking behavior by nucleus accumbens neurons during self-administration. Society for Neuroscience Abstract, San Diego, CA.
120. Kerfoot EC, Saddoris M, Carelli RM (2010) Distinct populations of neurons in the medial prefrontal cortex increase activity to cocaine-associated stimuli following drug abstinence. Society for Neuroscience Abstract, San Diego, CA.
121. Saddoris MP, Cameron CM, Briley JD, Carelli RM (2010) Long-term exposure to cocaine self-administration disrupts the behavioral and neural correlates of Pavlovian second-order conditioning in the nucleus accumbens of rats. Society for Neuroscience Abstract, San Diego, CA.
122. Sugam JA, Day JJ, Wightman RM, Carelli RM (2010) The mesolimbic dopamine system tracks subjective preferences during risky decision making. Society for Neuroscience Abstract, San Diego, CA.
123. Wheeler RA, Aragona BJ, Fuhrman KA, Day JJ, Jones JL, Wightman RM, Carelli RM (2010) Cocaine cues drive opposing context-dependent shifts in reward processing and emotional state. Society for Neuroscience Abstract, San Diego, CA.
124. Sugam JA, Saddoris MP, Carelli RM (2011) Nucleus accumbens neurons encode both risk predictive cues and behavioral responses during risk-based decision making. Society for Neuroscience Abstract, Washington DC.
125. Saddoris MP, Sugam JA, Wightman RM, Carelli RM (2011) Subsecond dopamine release in the nucleus accumbens tracks multiple cue predictions in Pavlovian second-order conditioning. Society for Neuroscience Abstract, Washington DC.
126. Green JL, Wheeler RA, Kerfoot EC, Carelli RM (2011) Differential encoding of aversive cues that predict delayed cocaine availability and cocaine-self-administration following extended taste-drug pairings. Society for Neuroscience Abstract, Washington DC.
127. Cacciapaglia F, Saddoris MP, Wightman RM, Carelli RM (2011) Examination of mesolimbic dopamine signaling during seeking versus taking of sucrose reward. Society for Neuroscience Abstract, Washington DC.
128. Cerri DH, Saddoris MP, Carelli RM (2011) Neural correlates of sensory-preconditioning in the nucleus accumbens encode the significance of higher-order cues. Society for Neuroscience Abstract, Washington DC.

129. Cameron CM, Carelli RM (2011) Effects of cocaine abstinence on nucleus accumbens cell firing during goal-directed behavior for cocaine versus a natural (sucrose) reward. Society for Neuroscience Abstract, Washington DC.
130. Owesson-White, CA, Belle AM, Herr NR, Peele JL, Carelli RM, Wightman RM (2011) Electrophysiological and electrochemical correlations during ICSS in the rat in Nucleus Accumbens core and shell. Society for Neuroscience Abstract, Washington DC.
131. West EA., Green JL., Saddoris MP, Carelli RM (2012) Effects of cocaine abstinence on nucleus accumbens cell firing during drug-induced devaluation of a natural reward. Society for Neuroscience Abstract, New Orleans, Louisiana.
132. Cameron CM, Carelli RM (2012) Rapid dopamine signaling in the nucleus accumbens during performance of a cocaine/sucrose multiple schedule. Society for Neuroscience Abstract, New Orleans, Louisiana.
133. Cerri DH, Stuber GD, Carelli RM (2012) Optogenetic inhibition of BLA to NAc inputs alters neural encoding of motivated behavior. Society for Neuroscience Abstract, New Orleans, Louisiana.
134. Saddoris M, Sugam, JA, Stuber, GD., Witten IB., Deisseroth K., Carelli RM (2012) Optogenetic stimulation of dopamine terminals in the nucleus accumbens is sufficient to promote goal-directed behavior. Society for Neuroscience Abstract, New Orleans, Louisiana.
135. West, E., Saddoris, M, Carelli RM (2013) The role of the NAc during the drug-induced devaluation of a natural reward and the effects of abstinence. Gordon Research Conference on Catecholamines, August, 2013.
136. Saddoris, M, Carelli RM (2013) Real-time dopamine release to food-predictive Pavlovian cues in rats with a history of cocaine self-administration. Gordon Research Conference on Catecholamines, August, 2013.
137. Owesson-White, CA., Belle AM., Herr NR, Peele JL, Carelli RM, Wightman RM (2013). Using Iontophoresis to identify receptor activation on medium spiny neurons in the nucleus accumbens during intracranial self-stimulation. Society for Neuroscience meeting, San Diego, CA.
138. Saddoris M, Carelli RM (2013) Cocaine self-administration differentially affects excitatory and inhibitory associative encoding in the nucleus accumbens core and shell. Society for Neuroscience meeting, San Diego, CA.
139. Sugam JA, Saddoris, MP, Carelli RM (2013) Dopamine release in the nucleus accumbens dynamically tracks changes in relative reward value during delay discounting. Society for Neuroscience meeting, San Diego, CA.

140. Cerri DH., Saddoris MP, Carelli RM (2013) Nucleus accumbens core neurons encode associations between stimuli in a sensory preconditioning task. Society for Neuroscience meeting, San Diego, CA.
141. Green J, Carelli RM (2014) A preclinical model of natural reward devaluation in cocaine addiction: effects of dose. College on Problems of Drug Dependence, Caribe Hilton, San Juan, Puerto Rico.
142. Stringfield SJ, Fanelli, RR, Williams WP, Carelli RM, Robinson DL (2104) Naltrexone shifts nucleus accumbens encoding of ethanol versus water operant self-administration. Society for Neuroscience Abstract, Washington DC.
143. Green JL, Dykstra LA, Carelli RM (2014) Voluntary wheel running reverses an established cocaine-induced negative affective state in a rodent model. Society for Neuroscience Abstract, Washington DC.
144. Cameron CM, Carelli RM (2014) Prolonged abstinence from cocaine self-administration potentiates rapid dopamine signaling in the nucleus accumbens core. Society for Neuroscience Abstract, Washington DC.
145. Saddoris M, Wang X, Terry DR, Reid JD, Carelli RM (2014) Cocaine self-administration experience biases rats towards sign-tracking behavior in a subsequent Pavlovian task. Society for Neuroscience Abstract, Washington DC.
146. Cerri DH, Saddoris MP, Carelli RM (2014) Neural encoding in the nucleus accumbens core during learning predicts subsequent test accuracy in a sensory preconditioning task. Society for Neuroscience Abstract, Washington DC.
147. West EA, Thomas EL, Carelli RM (2014) Dynamic shifts in nucleus accumbens neural encoding of reward-associated cues following reinforcer devaluation. Society for Neuroscience Abstract, Washington DC.
148. Presker MA, West EA, Carelli RM (2014) Effects of prolonged abstinence on cocaine-induced negative affect and the encoding of this information by nucleus accumbens neurons. Society for Neuroscience Abstract, Washington DC.
149. Sackett D, Saddoris MP, Wang X, Carelli RM (2014) Rapid dopamine signaling in the nucleus accumbens during a magnitude-based decision making task. Society for Neuroscience Abstract, Washington DC.
150. West EA, Carelli RM (2015) Nucleus accumbens core and shell differentially encode reward-associated cues following reinforcer devaluation. Gordon Research Conference on Catecholamines, Sunday River Resort, Newry ME.



151. Sackett DA, Carelli RM (2015) Comparison of dopamine release dynamics in the accumbens core versus shell during reward magnitude-based decision making. Gordon Research Conference on Catecholamines, Sunday River Resort, Newry ME.
152. Moschak TM, Terry DR, Carelli RM (2015) A history of cocaine self-administration decreases dopamine release to cues signaling reward availability in a delay discounting task. Gordon Research Conference on Catecholamines, Sunday River Resort, Newry ME.
153. West EA, Thomas EL, Carelli RM (2015) Nucleus accumbens subregions (core vs shell) differentially encode reward-associated cues following reinforcer devaluation. Society for Neuroscience Abstract, Chicago, IL.
154. Sackett DA, Saddoris MP, Wang RM, Carelli RM (2015) Examination of rapid dopamine signaling dynamics in the nucleus accumbens core versus shell during a magnitude-based decision making task. Society for Neuroscience Abstract, Chicago, IL.
155. Moschak TM, Terry DR, Carelli RM (2015) A history of cocaine self-administration decreases dopamine release to cues signaling reward availability in a delay discounting task. Society for Neuroscience Abstract, Chicago, IL.
156. Sackett DA, Saddoris MP, Wang X, Carelli RM (2016) The role of nucleus accumbens shell versus core in magnitude-based decision making. Society for Neuroscience Abstract, San Diego, CA.
157. Hurley SW, West EW, Carelli RM (2016) Optogenetics reveals that dopamine signaling in the rostral-caudal NAc shell differentially inhibits/facilitates cocaine-induced natural reward devaluation and negative affect in a preclinical model. Society for Neuroscience Abstract, San Diego, CA.
158. Moschak TM, West EA, Haake RM, Wang X, Carelli RM (2016) Neural activity in the anterior insula tracks cocaine-induced devaluation of natural rewards. Society for Neuroscience Abstract, San Diego, CA.
159. West EA, Niedringhaus, M, Carelli RM (2016) Prelimbic neurons encode reward predictive cues following devaluation. Society for Neuroscience Abstract, San Diego, CA.
160. Niedringhaus, M, West EA, Sackett DA, Carelli RM (2016) Oscillatory dynamics in the prelimbic cortex form to a reward-predictive cue following learning. Society for Neuroscience Abstract, San Diego, CA.
161. Haake RM, West EA, Wang X, Thomas EL, Carelli RM (2016) Enhancement of negative affect by abstinence from cocaine in a preclinical model. Society for Neuroscience Abstract, San Diego, CA.

162. Haake RM, Niedringhaus, M, Wang X, Carelli RM (2017) Enhancement of negative affect and alteration of nucleus accumbens cell firing following prolonged abstinence from cocaine. Gordon Research Conference on Catecholamine, Sunday River, Newry, Maine.
163. Hurley SW, West E, Carelli RM (2017) Opposing effects of dopamine in the rostral and caudal nucleus accumbens shell in a preclinical model of drug-induced negative affect. Gordon Research Conference on Catecholamine, Sunday River, Newry, Maine.
164. Haake RM, Niedringhaus M, West EA, Carelli RM (2017) Effects of abstinence from cocaine self-administration on basal cell firing dynamics in prelimbic cortex and nucleus accumbens core. Society for Neuroscience Abstract, Washington, DC.
165. West, E.A.; Niedringhaus M.; Ortega, H.K.; Haake, R.M.; Carelli R.M (2017) A history of cocaine alters prelimbic neuronal activity during learning and impairs subsequent reinforcer devaluation. Society for Neuroscience Abstract, Washington, DC.
166. Hurley SW, Carelli RM (2017) Processing of hedonic value by the infralimbic cortex (2017) Society for Neuroscience Abstract, Washington, DC.
167. Sackett DA, Carelli RM (2017) Dynamics of prelimbic cortical neuron activity during delay discounting behavior. Society for Neuroscience Abstract, Washington, DC.
168. Moschak TM, Wang X, Carelli RM (2017) A distinct subpopulation of neurons in the anterior insula tracks cocaine-induced devaluation of natural rewards. Society for Neuroscience Abstract, Washington, DC.
169. West, E.A.; Niedringhaus M.; Ortega, H.K.; Haake, R.M.; Carelli R.M (2017) Performance in a reinforcer devaluation task is casually linked to PrL to NAc transmission suggesting a mechanism for cocaine-induced impairments in flexible behavior. American College of Neuropsychopharmacology, Palm Springs, California.
170. Decot H, et al., (2018) Alteration of resting state functional connectivity following cocaine self-administration” Joint Annual Meeting ISMRM-ESMRMB, June 16-21, 2018.
171. Daughters SB, Yi JY, Carelli RM, Frohlich F, Wells R, Phillips R, Baker, S (2018) Effect of non-invasive transcranial alternating currents stimulation (tACS) on inhibitory control among substance users in intensive outpatient substance use treatment. College on Problems of Drug Dependence, San Diego, CA.
172. Haake, R.M., Niedringhuas M., Moschak, T, West E.A., Frohlich F, Carelli RM (2018) The effects of transcranial alternating current stimulation on heightened cocaine seeking following prolonged abstinence in rats. Carolina Neurostimulation Conference. May 21-23.
173. West, E.A. Niedringhaus M., Haake R.M., Ortega H.K., Frohlich F, Carelli, R.M. (2018) The effects of transcranial alternating current stimulation on cocaine-induced deficits in behavioral flexibility in rats. Carolina Neurostimulation Conference. May 21-23.

174. Yi JY, Wells RM, Baker S, Loeffler MB, Carelli RM, Frohlich, F, Daughter SB (2018) Transcranial alternating current stimulation of the dorsolateral prefrontal cortex improves inhibitory control among substance users. Carolina Neurostimulation Conference. May 21-23.
175. Ngbokoli ML; Moschak TM; Carelli, RM (2018) Effects of prior cocaine exposure on delay-based decision making and prelimbic cortical activity. Society for Neuroscience Abstract, San Diego, CA.
176. West EA, Niedringhaus M, Carelli RM (2018) Prelimbic-accumbal pathway encoding during learning predicts and is causally linked to behavioral flexibility. Society for Neuroscience Abstract, San Diego, CA.
177. Walton NJ, Haake RM, Niedringhaus M, West EA, Carelli RM (2018) The Effects of Noninvasive Brain Stimulation on Cocaine Seeking in a Rodent Model. Annual Biomedical Research Conference for Minority Students (ABRCMS). Indianapolis, IN.
178. West, E.A.; Niedringhaus M.; Ortega, H.K.; Haake, R.M.; Carelli R.M (2018) A history of cocaine alters prelimbic to accumbens neural activity during learning and impairs subsequent behavioral flexibility. American College of Neuropsychopharmacology, Hollywood, FL.
179. Moschak TM, Carelli RM (2019) Abstinence from cocaine impairs behavioral inhibition and alters neural activity in the prelimbic cortex. 2019 Society for the Quantitative Analysis of Behavior Meeting Program. Chicago, IL. Online.
180. Haake RM, Niedringhaus M, Moschak TM, West EA, Frohlich F, Carelli RM (2019) The effects of transcranial alternating current stimulation on cocaine seeking following prolonged abstinence in rats. Carolina Neurostimulation Conference. June 2019.
181. West EA, Niedringhaus M, Ortega HK, Haake RM, Frohlich F, Carelli, RM (2019) High frequency transcranial alternating current stimulation restores cocaine-induced behavioral flexibility deficits and underlying altered neural activity in rats. Carolina Neurostimulation Conference. June 2019.
182. Ngbokoli ML, Moschak TM, Carelli RM (2019) Behavioral effects of prior cocaine exposure on unsignaled delay-based decision making and prelimbic cortical activity. Society for Neuroscience Abstract, Chicago, IL.
183. Hurley S, Carelli RM (2019) Infralimbic Cortex Ensembles Encode Hedonic Valence. Society for Neuroscience Abstract, Chicago, IL.
184. West EA, Niedringhaus M, Sloand, J, Carelli RM (2019) Targeted optogenetic stimulation of the prelimbic cortex to nucleus accumbens core pathway restores behavioral flexibility following a history of cocaine exposure. Society for Neuroscience Abstract, Chicago, IL.
185. Haake, RM, Niedringhaus, M, Moschak, TM, West EA, Frohlich, F, Carelli RM (2019) Effects of prolonged cocaine abstinence on spontaneous activity and functional connectivity in the

prelimbic cortex to nucleus accumbens core pathway. Society for Neuroscience Abstract, Chicago, IL.

186. Moschak, TM, Carelli RM (2019) A history of cocaine increases impulsivity and disrupts neural activity in the prelimbic cortex. Society for Neuroscience Abstract, Chicago, IL.

187. West EA, Niedringhaus, M. Sloand TJ, Carelli RM (2019) Optogenetic Stimulation of the Prelimbic Cortex to Nucleus Accumbens Core Pathway Reverses Cocaine-Induced Deficits in Behavioral Flexibility. American College of Neuropsychopharmacology, Orlando, FL.

188. Cerri, DH, Hsu, LM, Walton, LR, Wang, TWW, Carelli, RM, Shih YYI (2020). Optogenetic fMRI reveals differences between ventral subiculum cell body and projection terminal stimulation in nucleus accumbens shell. ISMRM20.

189. Ngbokoli ML; Edwards LP; Carelli, RM (2021) Local field potential oscillatory dynamics in prelimbic cortex to nucleus accumbens core circuitry after extended access cocaine self-administration and prolonged abstinence. Society for Neuroscience Abstract, Chicago, IL.

190. Douton J, Carelli RM (2021) Conditioned Negative Affect Disrupts Functional Connectivity Between Infralimbic Cortex and Nucleus Accumbens Shell and restored in Extinction. Society for Neuroscience Abstract, Chicago, IL.

191. Moschak, T, Sloand, J, Carelli RM (2021) Distress tolerance and prelimbic activity predict cocaine-seeking in male, but not female rats. Society for Neuroscience Abstract, Chicago, IL.

192. Rodriguez-Echemendia, PL; Carelli, RM (2022) Coordinated neural activity in the PrL and the NAc core does not track shifts in hedonic processing during conditioned taste aversion and its extinction. San Diego, CA.

193. Rodriguez-Echemendia, PL, Douton, JE, Carelli, RM (2023) Oscillatory signaling dynamics in the prelimbic cortex and the nucleus accumbens core following conditioned taste aversion in male and female rats. Society for Neuroscience Abstract, Washington, DC.

194. Douton J, Carelli RM (2023) Sex Differences in Oscillatory Signaling Dynamics During Affect Processing in the Infralimbic Cortex and Nucleus Accumbens Shell. Society for Neuroscience Abstract, Washington, DC.

195. Grablin E, Douton J, Muller, S, Carelli RM (2023) Effects of optical stimulation of infralimbic cortex to nucleus accumbens shell pathway at beta (20 Hz) and gamma (80 Hz) frequencies on conditioned taste aversion in female rats. Society for Neuroscience Abstract, Washington, DC.

## Invited Speaker

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- Duke University, Durham, NC. March, 1998. Psychology Department Invited Speaker: “The nucleus accumbens and reward: Electrophysiological studies in behaving animals”.

- The University of North Carolina, Chapel Hill. Oral presentation to the Biological Psychology Program, UNC, March 1998. “The nucleus accumbens and reward: Electrophysiological studies in behaving animals”.
- National Institute on Drug Abuse: National Institutes of Health. Symposium entitled “Frontiers in Neuroscience: Wired for Addiction” June 22, 1998, National Institute of Health Campus, Bethesda, MD. Invited Speaker: “The nucleus accumbens and reward: Electrophysiological studies in behaving animals”.
- National Institute on Drug Abuse (NIDA) sponsored poster session entitled “Career Pathways in Behavioral Neuroscience”, Invited Participant. Held at the Society for Neuroscience meeting in Miami, Florida, October 27, 1999.
- The University of North Carolina, Chapel Hill. Oral presentation to the Biological Psychology Program, December, 2000. “Women in Science”
- National Institute on Drug Abuse (NIDA) Workshop entitled “Computational Models: Applications to Drug Abuse”. May 30-31, 2000, Bethesda, MD. Invited Speaker: “Nucleus accumbens cell firing during cocaine self-administration and water reinforcement in rats”.
- National Institute on Drug Abuse (NIDA) Workshop entitled: “Fifth Annual Institutional Research Training Grant Directors Meeting”. October 13, 2000. Bethesda MD.
- The University of North Carolina, Chapel Hill. Oral presentation to the Biological Psychology Program. March, 2001. “Neurophysiological Investigation of Cocaine Reinforcement”
- Penn State University College of Medicine, Hershey PA. May 17, 2001. Neuroscience Seminar Series: Invited Speaker: “Neurophysiological Investigation of Cocaine Addiction”.
- Symposium entitled “Like Drugs for Chocolate: Separate Rewards Modulated by Common Mechanisms?” sponsored by the Society for the Study of Ingestive Behavior (SSIB) and the National Institute on Drug Abuse. June 26-30, 2001, Philadelphia, PA. Invited Speaker: “Neurophysiological investigation of cocaine self-administration vs. ‘natural’ reinforcement”.
- The University of North Carolina, Chapel Hill. Women in Science and Research Organization. Invited Speaker: “Women in Science”. June 10, 2002.
- Duke University, Durham, NC. March 5, 2003. Cortex Club Invited Speaker: “Neurophysiological investigation of cocaine addiction”.
- Bowles Alcohol Center, May 12, 2003, The University of North Carolina, Chapel Hill. Invited Speaker: "Neurophysiological Investigation of Brain Reward Processing".

- 2003 Gordon Conference on Catecholamines. Queens College, Oxford, UK. August 3-8, 2003. Invited Chair: Catecholamines: Plasticity, Learning and Reward.
- European Behavioral Pharmacology Society 10th Biennial Meeting. Antwerp Belgium, September 6-9, 2003. Invited Speaker: "Neurophysiological and neurochemical investigation of cocaine versus 'natural' rewards".
- American Society of Addiction Research. Invited Speaker by Frank Vocci (Director of the Division of Treatment Research and Development at the National Institute on Drug Addiction). Title: "Neurophysiology of Cocaine Addiction". Washington, DC, October 30, 2003.
- 2003 National Institute on Drug Abuse "Frontiers in Addiction Research" Mini-Convention. November 7, 2003, New Orleans, LA. Invited Speaker: "Rapid Dopamine Signaling: Cocaine vs. Natural Rewards".
- Medical University of South Carolina, Department of Physiology & Neuroscience, Invited Speaker in the Addiction Seminar Series. "Neurophysiological Investigation of Brain Reward Processing" March 5, 2004.
- Duke University, Durham, NC. March 19, 2004. Psychology Department Invited Speaker: "Neurophysiological Investigation of Brain Reward Processing".
- Graduate School Neurosciences Amsterdam and the NWO Cognition Program. Invited Workshop presenter for: "Reinforcement Learning: Dopamine, attention and computational models". April 26-27, 2004, Amsterdam, The Netherlands.
- University of Cambridge, Behavioral Neuroscience Symposium Invited Speaker: "Neurophysiology of Brain Reward Processing", May 3, 2004, Cambridge, England, UK.
- Penn State University (main campus), Neuroscience Seminar Series: Invited Speaker: "Neurophysiological Investigation of Cocaine Addiction". Nov 18, 2004.
- The University of North Carolina, Physics Department, The Computational Neurobiology Journal Club, Nov 22, 2004.
- The University of Texas Medical Branch (UTMB) Department of Pharmacology and Toxicology, "NIDA Distinguished Professor for 2005", March 31, 2005.
- Baylor College of Medicine, Department of Neuroscience, Invited Speaker: April 1, 2005, Houston, TX.
- National Institute of Environmental Health Sciences, NIH Neuroscience Seminar Series, Invited Speaker: "Rapid Dopamine-Accumbens Signaling & Cocaine Addiction". May 18, 2005.

- National Institute on Drug Abuse, Invited Speaker. "Rapid Dopamine-Accumbens Signaling & Cocaine", June 1, 2005.
- The International Study Group Investigating Drugs as Reinforcers (ISGIDAR). Invited Speaker, June 18, 2005. Orlando, FL. "Rapid Dopamine-Accumbens Signaling during Cocaine Self-Administration".
- Gordon Research Conference on Catecholamine, Proctor Academy, July 24-29, 2005. Invited Speaker. "Dopamine release during behavior".
- 17th Frontier of Science Symposium of the National Academy of Science, Invited Speaker. "Why our brains get addicted: Insights from Neurobiology". October 27-29, Beckman Center, Irvine, CA.
- Society for Neuroscience, Mini-Symposium entitled "Neuroplasticity induced by abused drugs: is it relevant to addiction? November 12-16, 2005, Washington, DC., Invited Speaker, "Accumbens cell firing during cocaine-seeking: effects of abstinence".
- The University of North Carolina, Chapel Hill, Neuroscience Center, Invited Speaker, March 2, 2006.
- University of Michigan, Department of Psychology, Invited Speaker, March 14, 2006.
- Harvard Medical School, Department of Neurobiology, Invited Speaker, April 18, 2006.
- Duke University, Tobacco Addiction Research Group, Invited Speaker, May 1, 2006.
- Emory University, The Center for Behavioral Neuroscience Symposium, May 19-20, 2006.
- Saint Louis University School of Medicine, Department of Pharmacological and Physiological Science. September 12, 2006.
- University of Pittsburgh, Neuroscience Seminar Series, January 9, 2007.
- Invited Mentor for the Gordon-Kenan Graduate/Post-Doc Research Seminar on Catecholamines August 4-5, 2007; and Invited Discussion Leader for the Gordon Conference on Catecholamines, August 6-10, 2007, Oxford University, Oxford UK.
- University of Maryland School of Medicine, Department of Anatomy and Neurobiology and Psychiatry, Invited Seminar, October 16, 2007.
- Department of Psychiatry, UT Southwestern Medical Center, Invited Speaker, February 2008.
- Neurobiology Seminar Series at the University of Chicago, Invited Speaker, April 10, 2008.

- Invited Speaker and Session Chair for the 12<sup>th</sup> International Conference on *In Vivo* Methods, Monitoring Molecules in Neuroscience, Vancouver, Canada, August 10-14, 2008.
- Eastern Psychological Association, 2009 Meeting, Invited Speaker, Pittsburgh, PA, March, 2009.
- University of Minnesota, Biennial Symposium on the Neurobiology of Drug Addiction: Keynote Speaker, April 24, 2009.
- Mentor, Gordon-Kenan Graduate/Post-Doc Research Seminar on Catecholamines August 8-9, 2009; and Co-Chair of the Gordon Conference on Catecholamines, August 9-14, 2009, University of New England, Biddeford, ME.
- Duke University, Department of Neurobiology, Invited Speaker, September 15, 2009.
- The Scripps Research Institute-Florida, Distinguished Lecturer Series, November 13, 2009.
- The Department of Physiology & Pharmacology at Wake Forest University School of Medicine, Invited Speaker, April 22, 2010.
- The Department of Cellular and Molecular Physiology, Yale University School of Medicine, Invited Speaker, October 21, 2010.
- Medical University of South Carolina, Department of Neuroscience, Speaker, December 2, 2010.
- Keynote Address, Institute for Neuroscience Symposium, University of Texas at Austin, January 29, 2011.
- National Institute on Drug Abuse, Intramural Program. Invited Speaker, February 15, 2011.
- Department of Neuroscience, Rosalind Franklin University of Medicine and Science, Invited Speaker, October 25, 2011.
- Department of Human Genetics, Emory University, Invited Speaker, March 5, 2012.
- Invited Plenary Speaker, “Dopamine 2013” International Meeting, Alghero Italy, May 24-28, 2013.
- Invited Speaker the Gordon Research Conference on Catecholamines, Mount Snow Resort, West Dover, VT, August 10-14, 2013.



- Invited Speaker, Dartmouth College, Department of Psychological & Brain Sciences, Oct 4, 2013.
- Invited Speaker, Center on Addiction and Behavior Change (CABC), Duke University, Symposium entitled "Determination and Determinism: Integrating Causative Networks to Resolve Addictive Dysfunction" January 22, 2014.
- Invited Speaker, The Picower Institute at MIT, March 20th, 2014.
- UNC Order of the Golden Fleece 2<sup>nd</sup> decennial alumni meeting, Invited panel member on the Importance of Research at Carolina, April 12, 2014.
- Invited Speaker, Bowles Alcohol Center, The University of North Carolina, Chapel Hill, June 2, 2014.
- Invited Speaker, NYU Neuroscience Institute, Oct 20, 2014.
- Invited Speaker, Triangle Chapter of the Society for Neuroscience, 2015 Spring Neuroscience Day, April 10th, 2015.
- Invited Speaker, 2015 Annual Summer Conference of the North Carolina Associations of County Attorneys and DSS Attorneys, Wilmington, NC, July 2015.
- Invited Discussant, 2015 GRC Catecholamines 2015, Sunday River Resort Newry, ME, August 9-14, 2015.
- Invited Speaker, Public Law for the Public's Lawyers Conference. Legislative Office Building, Raleigh, NC, November 13, 2015.
- Invited Speaker, Duke Institute for Brain Sciences, November, 2015.
- Invited Plenary Speaker, Western North Carolina Chapter of the Society for Neuroscience, Wake Forest University, December 8, 2015.
- Invited Speaker, Carolina Neuroscience Club, April 11, 2016.
- National Advisory Council on Drug Abuse, Invited Speaker, May 4, 2016.
- Invited Speaker, "Addiction, in Theory" meeting, Gatsby Unit, University of London, London England, May 10-12, 2016.
- Invited Participant, "Can we make animal models of human mental illness? A critical review", Banbury Center of Cold Spring Harbor Laboratory, August 21-23, 2016.

- Invited Speaker, Society for Research in Psychopathology (SRP) Meeting, August 30, 2016. Baltimore, MD.
- Pittcon Conference and Expo, 2017. Invited Speaker in Session entitled “In vivo neurochemistry: applications from single cells to behavior”. In honor of R. Mark Wightman. Chicago, IL, March, 2017.
- Invited Speaker, Department of Neuroscience, Case Western Reserve University School of Medicine. April 13, 2017.
- Invited Speaker, 2017 GRC Catecholamines 2015, Sunday River Resort Newry, ME, August 2017.
- Keynote Speaker, Rutgers Brain Health Institute Annual Symposium, December 1, 2017.
- Keynote Speaker, 2017-2018 Eliot Stellar Lecture in Behavioral and Cognitive Neuroscience at the University of Pennsylvania, as part of the Mahoney Institute for Neurosciences “Year of Addiction”. December 13, 2017.
- Invited Participant, 2018 NIDA Diversity Scholars Network (NDSN) meeting. San Diego, CA, June 7-8, 2018.
- Invited Speaker, University of Virginia, Neuroscience Graduate Student Seminar Series, September, 25, 2018.
- Invited Speaker, University of British Columbia, Djavad Mowafaghian Centre for Brain Health Neuroscience Research Colloquium Seminar, Vancouver, BC, March 8, 2019.
- Invited Speaker, University of Minnesota Graduate Student and Neuroscience department seminar series, April, 2019.
- Invited Speaker, National Advisory Council on Drug Abuse, February 9, 2021.
- Invited Speaker, Gordon Research Conference on Addictions. Grand Summit Hotel at Sunday River in Newry, ME August 16-21, 2020. Postponed (Covid-19). New date: August, 14-19, 2022.
- Bowles Alcohol Center, The University of North Carolina, Chapel Hill. Invited Speaker: February 27, 2023.