Curriculum Vitae

Regina M. Carelli

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

Contact Information

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Web:	http://www.unc.edu/~rcarelli/

Education

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

2013-present	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

Current Funding

- Principal Investigator, National Institute on Drug Abuse. R01: "Neurophysiological Cocaine & Natural Rewards". 2014-2019. Total: $1,672,230

- Principal Investigator, National Institute on Drug Abuse. R01: "Neurobiological Investigation of Decision Making in Rats". 2013-2019 (currently in NCE). Total: $1,742,725

- Principal Investigator, National Institute on Drug Abuse, R21: "Non-invasive brain stimulation and addiction: preclinical model". 2018-2020. Total: $414,185

- Director, National Institute on Drug Abuse. "Predoctoral Training in Research in Addiction Science". 2015-2020. Mentor: 1997-present.

Other Training Grant Participation

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

Completed Grants

- 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" 2007-20013. 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 Agonsts" 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

- Travis M. Moschak (PI) K99 Pathway to Independence Award. "Neural circuitry of distress tolerance". Impact Score: 25. *pending*

- 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.

- Supplement of "Combined Voltammetry/Electrophysiology in Behaving Rats" to Promote Diversity (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

- 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-present

- 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.

Academic Awards and Honors

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-present	NIDA Board of Scientific Counselors (Intramural Program)
2015	Senior Faculty Competitive Research & Scholarly Leave (Provost's office)
2016-present	Fellow, Association for Psychological Science
2018	UNC-CH Distinguished Teaching Award for Post-Baccalaureate Instruction (awarded by UNC Chancellor & Provost)

Professional Affiliations

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

Professional Services

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.

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-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 Heatlth: 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 (Representative – National Advisory Council on Drug Abuse)
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:

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

Department of Psychology, 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, Kannapolis 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 Department (2013-present)
Faculty mentoring committee for Kate Reissner (2013-present)
Faculty mentoring committee for Katie Gates (2013-present)
Faculty mentoring committee for Sylvia Fitting (2015-present)
Neuroscience Major Committee (2016-2017)
Psychology and Neuroscience Dept. Undergraduate Academic Advisor (Spring 2017-present)
Post tenure review committee, Spring 2017
Search Committee Member: Teaching Faculty (2), Spring 2018

Outside Psychology 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 Neurobiology (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)

Teaching Experience

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

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)

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 Lsyle, 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 Casachahuaasa (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, pending)
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, pending)
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, pending)
Nathan Burnham (PhD, Psychology & Neuroscience, Advisor: Thiele, pending)
Christina Lebonville (PhD, Psychology & Neuroscience, Advisor: Lysle, pending)
Jennifer Youngshin Yi (PhD, Clinical Psychology, Advisor: Daughters, pending)

Graduate Masters and/or 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)

Supervision of Research

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)

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 - present)
Rachel Haake, Behavioral and Integrative Neuroscience Graduate Student (2015 - present)
Metika Ngbokoli, Behavioral and Integrative Neuroscience Graduate Student (2017-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: Post doctoral student in Chemistry & Psychology (co-advisor with R.M. Wightman, 2005-2008). Currently, Assistant Professor, University of Michigan, Psychology Dept (2008-present)
Joseph Cheer: Postdoctoral student, Chemistry (advisor: R.M. Wightman, 2003-2006), currently Assistant 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, Assistant 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 Saddoris: 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-present
Travis Moschak: Postdoctoral student in Psychology and Neuroscience, 2014- present
Seth Hurley; Postdoctoral student in Psychology and Neuroscience, 2015-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.

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13. Carelli RM, Deadwyler SA (1996) Dual factors controlling the activity of nucleus accumbens cell firing during cocaine self-administration, *Synapse, 24*: 308-311.

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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.

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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.

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28. Phillips PEM, Stuber GD, Heien MLAV, Wightman RM, Carelli RM (2003) Subsecond dopamine release promotes cocaine seeking, *Nature,* 422(6932):614-618.

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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. PMCID: PMC2900378.

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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. PMCID: PMC2981416.

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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. PMCID: PMC3090459.

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

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Book Chapter:

West, EA, Moschak T, Carelli RM (2018) Goal-directed decision making: Computations and neural circuits. Morris, Bornstein and Shenhav, eds. Academic Press (Elsevier). Chapter 9: Distinct functional microcircuits in the nucleus accumbens underlying goal-directed decision-making. pp. 199-212.

Abstracts/Presentations:

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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, E.A.; Niedringhaus M.; Carelli R.M (2018) : Prelimbic-accumbal pathway encoding during learning predicts and is causally linked to behavioral flexibility. Society for Neuroscience Abstract, San Diego, CA.

Invited Speaker

- 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 Workship 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 Gordan-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 12th 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, Gordan-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 2nd 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.