CURRICULUM VITAE
COREY BRYANT SMITH

PERSONAL

Birth date: August 6, 1969
Place of Birth: Palo Alto, CA, U.S.A.
Citizenship: United States of America

INSTITUTIONAL ADDRESS

Department of Physiology and Biophysics
Case Western Reserve University
2109 Adelbert Road
Cleveland, OH 44106-4970

EDUCATION

1987 - 1991: Bachelor of Science in Zoology/Biocore, University of Wisconsin, Madison, Wisconsin.

1991 - 1996: Doctor of Philosophy in Neuroscience, University of Colorado Health Science Center (U.C.H.S.C.), Denver, Colorado. (Dr. William J. Betz, Advisor).

1996 - 1998: Postdoctoral Research Fellowship, Max-Planck-Institute for Biophysical Chemistry, Department of Membrane Biophysics, Göttingen Germany. (Dr. Erwin Neher, Advisor).

ACADEMIC POSITIONS

1998 - 2000: Assistant Professor, Department of Physiology and Endocrinology, Medical College of Georgia, Augusta, GA.

2000 - 2007: Assistant Professor, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH.

2007 - 2014: Associate Professor (with award of Tenure), Department of Physiology and Biophysics: Case Western Reserve University, Cleveland, OH.

2014 - Present: Professor, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH.

ADMINISTRATIVE POSITIONS

2008 - 2013: Director, Cell Physiology Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2012: Chair, Exocytosis-Endocytosis Subgroup, The Biophysical Society.

2013 - 2015: Director of Admissions, Physiology and Biophysics Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2015 – 2022, 2025 - Present: Graduate Program Director. Doctoral Program in Physiology and Biophysics. Case Western Reserve University.

2019 - 2022: Member of the Graduate Program Director's Leadership Council, Case Western Reserve University.

2019 - Present: Block-2 (Neurology) director. Master's in Medical Physiology Post-Baccalaureate Program. Case Western Reserve University.

2021 - 2022: Co-Chair, Case Western Reserve University School of Medicine Committee on Appointments, Promotions and Tenure (covers CWRU, Louis Stokes V. A. Hospital, University Hospitals, Cleveland Clinic Foundation, MetroHealth Medical Center).

2022 – 2024: Director of Physiological Research, Dept. Physiology and Biophysics, Case Western Reserve University.

2022 – 2025: Vice Chair, Department of Physiology and Biophysics, Case Western Reserve University.

2024 - 2025: Acting Chair, Department of Physiology and Biophysics, Case Western Reserve University.

HONORS AND AWARDS

2000-2002: Alfred P. Sloan Foundation Neuroscience Research Fellowship.

2010: Plenary Lecture, Mini Symposium "New Directions in Membrane Trafficking". Joint Australian Physiological Society/Australian Neuroscience Society Meeting. University of Western Sydney, Campbelltown, Australia.

2015: Plenary Lecture, International Symposium for Chromaffin Cell Biology, Cairns, Australia.

2017: Invited Symposium Speaker, 3rd UCLA Cardiac Autonomic Control in Health and Disease. Los Angeles, CA.

2017: Invited PhD Opponent, Chalmers Technical University, Gothenburg Sweden.

PATENTS

Neuromodulation of adrenal gland. Arun Sridhar, Corey Smith, Kyle Wolf, Georgy Zarkua, Shyue-An Chan. US20200179699A1 (USA and International)

Sensor for detection of analytes. James M. Seckler, Neil A. Goldsmith, Stephen J. Lewis, Corey Smith, James Bates, Nicole Meyers, Spencer T. Burton US11422131B2

GRANTS AND FELLOWSHIPS

Current:

2023 - 2027: National Institutes of Health, NHLBI. R01HL162921 “Bioelectronic monitoring of the heart. Role: PI (Multi-PI, contact PI, Ardelll)

2020 – 2024: National Institutes of Health, NHLBI. R01HL150136 “Investigation of Partial Electrical Block for Autonomic Regulation” Role: Co-investigator (PI, Vrabec)

2020 – 2024: National Institutes of Health, NHLBI. R01HL148190 “Mechanisms of parasympathetic neural control following myocardial Infarction” Role: Co-investigator (PI, Vaseghi)

2023 – 2028: National Institutes of Health, NINDS. R01NS105789 “Understanding GABAA receptor protein folding and misfolding” Role: Co-Investigator (PI, Mu)

2023 – 2028: National Institutes of Health, NHLBI. P01HL164311 “Cardiac Neuromodulation: Mechanisms and Therapeutics” Role: Consultant (PI, Shivkumar)

2024 – 2028: LeDucq Foundation. 23CVD044311 “bioelectronics for neurocardiology-diagnosis & therapeutics” Role: Consultant (PI Shivkumar)

Pending:

NIH, NIDDK R01. “Mechanisms of Impaired Renal Hemodynamics after Spinal Cord Injury “. P.I. Osei-Owusu. Role: Co-Investigator.

NIH, NHLBI R21. “In-vivo detection of evoked acetylcholine”. Role: Co-PI (Contact PI: Vaseghi).

Completed:

1996 - 1997: Deutsche Forschungsgemeinschaft S.F.B. 406: Postdoctoral Research Fellowship.

1998 - 1999: Max-Planck Society: Postdoctoral Research Fellowship.

1999 - 2000: Biological Research Support Grant (BRSG).

1999 - 2000: Medical College of Georgia Research Institute Grant (MCGRI).

2000 - 2004: National Science Foundation Division of Integrative Biology and Neuroscience, Neuronal and Glial Mechanisms. IBN-0196136. “Optical and electrical monitoring of facilitation mechanisms in chromaffin cells.” P.I. Corey Smith.

2004 - 2009: National Science Foundation Division of Integrative Biology and Neuroscience, Neuronal and Glial Mechanisms. IBN-0344768. “Mechanisms of endocytosis in chromaffin cells.” P.I. Corey Smith.

2005 - 2011: National Institutes of Health, NINDS. 1R01NS052123. “Mechanisms of the adrenal medulla stress response.” P.I. Corey Smith.

2011 - 2016: National Institutes of Health, NIGMS. 1R01GM3637." Regulation of caspase-1 signaling and inflammation by the P2X7ATP receptor." P.I. George Dubyak.

2014 - 2016: GlaxoSmithKline. CON126278. "Regulation of adrenal medullary norepinephrine and enkephalin release by exogenous splanchnic stimulation.": P.I. Corey Smith

2014 - 2016: GlaxoSmithKline. CON509380. "High frequency and DC electrical block of nerve conduction.": P.I. Niloy Bhadra

2012 - 2017: National Institutes of Health, NIGMS. 1R01GM102191. "Molecular control of peptide exocytosis.: P.I. Corey Smith.

2017-2019: National Institutes of Health, NINDS. "Molecular Mechanisms of Rapid Synaptic Vesicle Endocytosis.": P.I. Rajesh Ramachandran.

2018-2019: National Institutes of Health, SPARC. OT2-OD023853. "Foundational tools to study the impacts of sympathetic activity on the neuroanatomy and function of brown adipose tissue". P.I. Lori Zeltser

2017-2021: National Institutes of Health, NIBIB. U01EB025138. "Bioelectric monitoring and control of the heart". P.I. Corey Smith (multi-PI project, contact P.I. Jeffrey Ardell).

2021 – 2022: Case Western Reserve University, Department of Physiology and Biophysics Pilot Project Program. "Physiological control of differential transmitter release from the adrenal medulla through MARCKS activation. Role: P.I.

SOCIETY MEMBERSHIPS

1994 - 2001: The Society for Neuroscience.
1999 - 2002: The American Association for the Advancement of Science.
1997 - Present: The Biophysical Society.
2000 - Present: Ohio Society of Physiologists
2010 - Present: American Physiological Society

EDITORIAL BOARDS AND PEER REVIEW COMMITTEES

1999 – 2000: AdHoc reviewer, National Science Foundation IBN
2002: Human Resources Advisory Group, Medical Research Council, London, England.
2003 – 2008: American Heart Association Ohio Valley Division Study Section 4B.
2003 – 2012: Editorial Board, Archives of Biochemistry and Biophysics
2004, 2008: Human Resources Advisory Group, Medical Research Council, London, England.
2005: NIH, BSCT Scientific Review Group Special Emphasis Panel.
2006: NIH, BSCT Scientific Review Group Special Emphasis Panel.
2007: NIH, Ad-Hoc reviewer MBPP Scientific Review Group.
2008: Israel Science Foundation (ISF) Scientific Review Group.
2009: NIH, MDCN-N Scientific Review Group Special Emphasis Panel.
2010: NIH, MDCN-N Scientific Review Group Special Emphasis Panel.

2010: NIH, BPNS-N Scientific Review Group Special Emphasis Panel.
2011: Reviewer, Thalis, Hellenic Republic Ministry of Education, Lifelong Learning and Religious Affairs (Greek National Research Projects Evaluation).
2011: NIH, Chair, MDCN-N Scientific Review Group Special Emphasis Panel.
2011: NIH VH-C Scientific Review Group Special Emphasis Panel.
2012: NIH IPOD Scientific Review Group.
2013: Agence Nationale Recherche (ANR, France), Scientific Review Group.
2013: NHMRC (Australia), Overseas Expert Reviewer.
2013 – Present: Editorial Board, American Journal of Physiology – Cell Physiology.
2014 – Present: Editorial Board, Frontiers in Neuroendocrine Science.
2014 – Present: Editorial Board, Frontiers in Endocrinology.
2014 – 2020: Regular member, NIH, BPNS Scientific Review Group.
2020: Co-Chair, NIH, BPNS Scientific Review Group.
2021 – Present: Editorial Board, Frontiers in Endocrinology - Cellular Endocrinology
2021 – Present: Editorial Board, Frontiers in Physiology – Environmental, Aviation and Space Physiology.
2024: Swiss National Science Foundation, External Grant Proposal Reviewer.

SERVICE

National/International:

2003-2016: Organizational Committee, Exocytosis-Endocytosis Subgroup, The Biophysical Society.

2010-2011: Organizer/Platform Chair, 16th International Symposium for Chromaffin Cell Biology, Beijing China.

2011: Chair-Elect, Exocytosis-Endocytosis Subgroup, The Biophysical Society.

2011 - 2012: International Advisory Board, 17th International Symposium for Chromaffin Cell Biology, Rouen France.

2012: Chair, Exocytosis-Endocytosis Subgroup, The Biophysical Society.

2011 – 2017: Executive Committee, Exocytosis-Endocytosis Subgroup, The Biophysical Society.

2016- 2017: Organizing Committee/International Advisory Board, 19th International Symposium for Chromaffin Cell Biology, Sheffield, UK.

2020: Chair, External Review Committee, Boston University School of Medicine Academic Program Review, Department of Physiology and Biophysics. Boston, MA.

2024 - Present: Organizing Committee, 23rd International Symposium for Chromaffin Cell Biology, Detroit, MI, USA.

Institutional:

1999-2000: Subcommittee member; Committee on Animal Use for Research and Education, Medical College of Georgia.

1999-2000: Committee member; Graduate Curriculum Committee, Medical College of Georgia.

1999-2000: Committee member; Biological Systems Analysis organizational committee, Medical College of Georgia.

1999-2000: Committee member; judging committee for Graduate Student Research Day presentations, Medical College of Georgia.

2000-2000: Committee member; Dept. of Physiology and Endocrinology faculty search committee member, Medical College of Georgia.

2000-2000: Committee member; Dept. of Physiology Chair's advisory committee, Medical College of Georgia.

2000: Committee member; Interdisciplinary Research Building, Phase II architectural committee. Medical College of Georgia.

2001-2002: Seminar Series Coordinator, Biophotonics Seminar Series, Case Western Reserve University.

2001-2010: Committee for Appointments, Promotions and Tenure. Department of Physiology and Biophysics, Case Western Reserve University.

2002-2008: Common Equipment Coordinator, Chair of Facilities Committee, Department of Physiology and Biophysics, Case Western Reserve University.

2004-Present: Graduate Education Committee, Department of Physiology and Biophysics, Case Western Reserve University.

2005-2015: Graduate Admissions Committee (Chair), Department of Physiology and Biophysics, Case Western Reserve University.

2008: Admissions Committee, BSTP. Case Western Reserve University.

2008 - 2010: School of Medicine Faculty Council/Steering Committee, Case Western Reserve University

2008 - 2011, Search Committee, Department of Physiology and Biophysics, Case Western Reserve University.

2008 - 2012: Director, Cell Physiology Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2009 – 2012: (Term 1) Member, School of Medicine Committee on Appointments, Promotions and Tenure, Case Western Reserve University (covers CWRU, Louis Stokes V. A. Hospital, University Hospitals, Cleveland Clinic Foundation, MetroHealth Medical

Center).

2010-2017: Faculty Mentor Committee: Dr. Chris Ford, Department of Physiology and Biophysics, Case Western Reserve University.

2010-2017: Faculty Mentor Committee: Dr. Rajesh Ramachandran, Department of Physiology and Biophysics, Case Western Reserve University.

2010-2017: Faculty Mentor Committee: Dr. Sudha Chakrapani, Department of Physiology and Biophysics, Case Western Reserve University.

2013 – 2016: School of Medicine Faculty Council, Case Western Reserve University.

2013 – 2016: Chair, Core Facilities Steering Committee, Department of Physiology and Biophysics, Case Western Reserve University.

2013 – 2014: Graduate Education Task Force, Department of Physiology and Biophysics, Case Western Reserve University.

2014: Member of the Biomedical Sciences Training Program Admissions Committee. Case Western Reserve University.

2015 – 2022: Graduate Program Director (Ph.D.), Department of Physiology and Biophysics, Case Western Reserve University.

2016 – 2022: BSTP Director Advisory Committee, Case Western Reserve University School of Medicine/Graduate Studies.

2019: Institutional examiner, Ohio Board of Regents - Department of Biochemistry Graduate Program Audit, Case Western Reserve University.

2019 – 2022: (Term 2) Member, School of Medicine Committee on Appointments, Promotions and Tenure, Case Western Reserve University (covers CWRU, Louis Stokes V. A. Hospital, University Hospitals, Cleveland Clinic Foundation, MetroHealth Medical Center).

2021 – 2022 Co-Chair, School of Medicine Committee on Appointments, Promotions and Tenure, Case Western Reserve University (covers CWRU, Louis Stokes V. A. Hospital, University Hospitals, Cleveland Clinic Foundation, MetroHealth Medical Center).

2021: Co-Chair and Review Panel, Seibyl Fund for Neurodegeneration, Care and Education. Case Western Reserve University School of Medicine and School of Nursing.

2022 – Present: (Term 3) Member, School of Medicine Committee on Appointments, Promotions and Tenure, Case Western Reserve University (covers CWRU, Louis Stokes V. A. Hospital, University Hospitals, Cleveland Clinic Foundation, MetroHealth Medical Center).

2025-Present: Chair, Committee for Appointments, Promotions and Tenure. Department of Physiology and Biophysics, Case Western Reserve University.

2025 – Present: Graduate Program Director (Ph.D.), Department of Physiology and Biophysics, Case Western Reserve University.

JOURNAL MANUSCRIPT REVIEWS

Analytical Chemistry, Archives of Biochemistry and Biophysics, BBA - Molecular Cell Research, Biochemical Journal, Biophysical Journal, Cell Calcium, Cell Research, Circulation Research, Developmental Biology, European Journal of Neuroscience, FASEB Journal, Frontiers in Neuroscience, Frontiers in Neuroanatomy, Frontiers in Neuroendocrinology, Journal of Cell Biology, Journal of Cell Science, Journal of General Physiology, Journal of Membrane Biology, Journal of Neuroendocrinology, Journal of Neurochemistry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of the Royal Society Interface, Journal of Physiology (London), Nature, Neuron, Neuroscience, Molecular Biology of the Cell, Molecular Cell Biology, PLoSBiology, PLoSONE, Science.

PUBLICATIONS

C.B. Smith and W.J. Betz (1996) Simultaneous independent measurement of exocytosis and endocytosis. Nature, 380:531-534.

W.J. Betz , F. Mao and C.B. Smith (1996) Imaging exocytosis and endocytosis. Current Opinion in Neurobiology, 6:365-371.

C. Smith and E. Neher (1997) Multiple forms of endocytosis revealed in bovine adrenal chromaffin cells. Journal of Cell Biology, 139(4)875-894.

C. Smith, T. Moser, T. Xu, and E. Neher (1998) Cytosolic Ca^{2+} acts by two separate pathways to modulate the supply of release-competent vesicles in chromaffin cells. Neuron, 20(6):1243-53.

Corey Smith (1999) A persistent activity-dependent facilitation in chromaffin cells is due to Ca^{2+}-dependent activation of protein kinase C. Journal of Neuroscience, 19(2):589-598.

Shyue-An Chan and Corey Smith (2001) Physiological Stimuli Evoke Two Forms Of Endocytosis In Chromaffin Cells. Journal of Physiology (London), 537.3, 871-885.

Shyue-An Chan, Robert H. Chow and Corey Smith. (2003, Published online Dec. 10, 2002) Calcium dependence of action potential-induced endocytosis in chromaffin cells. Pflügers Archiv – European Journal of Physiology, 445, 540-546.

Shyue-An Chan and Corey Smith (2003) Low frequency stimulation of mouse adrenal slices reveals a clathrin-independent, protein kinase C-mediated endocytic mechanism. Journal of Physiology (London), 553.3, 707-717.

Shyue-An Chan, Luis Polo-Parada and Corey Smith (2005) Action potential stimulation reveals a preferential P/Q-calcium channel dependent exocytosis in mouse adrenal tissue slices. ABB, 435,1,65-73.

Shyue-An Chan, Luis Polo-Parada, Lynn Landmesser and Corey Smith (2005) Adrenal chromaffin cells exhibit impaired granule trafficking in NCAM knockout mice. Journal of Neurophysiology 2005;94 1037-1047.

Tiberiu Fulop, Stephen Radabaugh and Corey Smith (2005) Activity-dependent differential transmitter release in mouse adrenal chromaffin cells. Journal of Neuroscience 2005 25: 7324-7332.

Ronghua ZhuGe, Valerie DeCrescenzo, Vincenzo Sorrentino, Tony Lai, Richard A. Tuft, Corey Smith, Kevin E. Fogarty and John V. Walsh, Jr. (2006) Syntillas release Ca2+ at a site different from the microdomain where exocytosis occurs in mouse chromaffin cells. Biophysical Journal 90:2027-2037.

Tiberiu Fulop and Corey Smith (2006) Physiological Stimulation Regulates Fusion Pore Dilation Through Calcium activation of Protein Kinase C in Mouse Chromaffin Cells. Biochemical Journal 399(1):111-9

Luis Polo-Parada, Shyue-An Chan and Corey Smith (2006) An activity-dependent increased role for L-type calcium channels in exocytosis from mouse adrenal chromaffin cells. Neuroscience 143(2):445-59.

Hong Wang, Shyue-an Chan, David Hellard, Qifang Wang, Michael Ogier, Corey Smith and David M. Katz (2006) Dysregulation of Brain-Derived Neurotrophic Factor Expression and Neurosecretory Function in *Mecp2* Null Mice. Journal of Neuroscience 26(42):10911-5.

Barbara A. Kuri, Shakil A. Khan, Shyue-An Chan, Nanduri R. Prabhakar, and Corey Smith (2007) Increased Secretory Capacity of Mouse Adrenal Chromaffin Cells By Intermittent Hypoxia: Involvement of Protein Kinase C. Journal of Physiology (London) 584: 313-319.

Tiberiu Fulop and Corey Smith (2007) Matching Native Electrical Stimulation By Graded Chemical Stimulation In Isolated Mouse Adrenal Chromaffin Cells. Journal of Neuroscience Methods 166(2): 195-202.

Bryan Doreian, Tiberiu Fulop and Corey Smith (2008) Myosin II activation and actin re-organization regulate the mode of quantal exocytosis in mouse adrenal chromaffin cells. Journal of Neuroscience 28(17):4470-4478.

Tiberiu Fulop, Bryan Doreian and Corey Smith (2008) Dynamin I plays dual roles in the activity-dependent shift in exocytic mode in mouse adrenal chromaffin cells. ABB 1:477(1): 146-154.

Barbara Kuri, Shyue-An Chan and Corey Smith (2009) PACAP regulates immediate catecholamine release from adrenal chromaffin cells in an activity dependent manner

through a protein kinase C-dependent pathway. Journal of Neurochemistry. 110(14):1214-25.

Thomas Ladas, Shyue-An Chan, Michael Ogier, Corey Smith and David Katz (2009) Enhanced Dense Core Granule Function and Adrenal Hypersecretion in a Mouse Model of Rett Syndrome. European Journal of Neuroscience. 30(4):602-10.

Dangjai Souvannakitti, Barbara Kuri, Anita Pawar, Ganesh K. Kumar, Corey Smith, Aaron P. Fox and Nanduri R. Prabhakar (2010) Neonatal intermittent hypoxia impairs neuronal nicotinic receptor expression and function in adrenal chromaffin cells. American Journal of Physiology – Cell Physiology. 299(2):C381-8..

Shyue-An Chan, Bryan Doreian, Corey Smith (2010) Dynamin and myosin regulate differential exocytosis from mouse adrenal chromaffin cells. Cellular and Molecular Neuroscience. 30(8):1351-7.

Jackie Hill, Shyue-An Chan, Barbara Kuri, Corey Smith (2011) PACAP elicits stress-evoked catecholamine secretion by augmentation of a T-type calcium current in mouse adrenal chromaffin cells. Journal of Biological Chemistry. 286(49):42459-69.

Shyue-An Chan, Jackie Hill, Corey Smith (2012) Tonic protein kinase C activity decreases calcium current density and indicates decreased secretory output from female mouse adrenal chromaffin cells. Cell Calcium. 52(3-4): 313-20

Jackie Hill, Seong-Ki Lee, Prattana Samasilp and Corey Smith (2012) Pituitary Adenylate Cyclase-Activating Peptide (PACAP) enhances electrical coupling in the mouse adrenal medulla. American Journal of Physiology – Cell Physiology. 303(3):C257-66.

Prattana Samasilp, Shyue-An Chan, Corey Smith (2012) Activity-dependent fusion pore expansion regulated by a calcineurin-dependent dynamin-syndapin pathway in mouse adrenal chromaffin cells. The Journal of Neuroscience. 32(30):10438-47.

Nikolas Stroth, Barbara Kuri, Tomris Mustafa, Shyue-An Chan, Corey Smith and Lee Eiden (2013) PACAP controls adrenomedullary catecholamine secretion and expression of catecholamine biosynthetic enzymes at high splanchnic nerve firing rates characteristic of stress transduction in male mice. Endocrinology. 154(1):330-9.

Prattana Samasilp , Kyle Lopin , Shyue-An Chan , Rajesh Ramachandran , Corey Smith (2014) Syndapin 3 Modulates Fusion Pore Expansion in Mouse Neuroendocrine Chromaffin Cells. American Journal of Physiology - Cell Physiology. 306(9): 831-43.

Kyle Wolf, Georgy Zarkua, Shyue-An Chan, Arun Sridhar and Corey Smith (2016) Spatial and activity-dependent catecholamine release in rat adrenal medulla under native neuronal stimulation. Physiological Reports. 4(17): 1-13.

Lee Eiden, Andrew Emery, Limei Zhang and Corey Smith (2018) PACAP signaling in stress: Insights from the chromaffin cell. Pflügers Archiv – European Journal of Physiology. 470(1):79-88.

David Litvin, Thomas Dick, Corey Smith and Frank Jacono (2018) Lung-injury depresses glutamatergic synaptic transmission in the nucleus tractus solitarii via discrete age-dependent mechanisms in neonatal rats. Brain, Behavior and Immunity. 70:398-422.

David Litvin, Scott Denstaedt, Thomas Dick, Corey Smith and Frank J Jacono (2020) Peripheral-to-central immune communication at the area postrema glial-barrier following bleomycin-induced sterile lung injury in adult rats. Brain, Behavior and Immunity. 2020 Feb 22. pii: S0889-1591(19)31340-6.

Shyue-An Chan, Marmar Vaseghi, Nicholas Kluge, Shivkumar Kalyanam, Jeffrey Ardell and Corey Smith (2020) Fast In Vivo detection of norepinephrine in a beating heart. Am J Physiol Heart Circ Physiol. 318(5).

Hossein Zamani, Shyue-An Chan, Corey Smith and Pedram Moheseni (2020) A neurochemical recording microsystem with analog background current subtraction and 400 V/s FSCV sensing using 1st order ΔΣM. IEEE Xplore. 517-520.

Nicholas Kluge, Michael Dacey, Joseph Hadaya, Kalyanam Shivkumar, Shyue-An Chan, Jeffrey Laurence Ardell, and Corey Smith (2021) Rapid measurement of cardiac neuropeptide dynamics by capacitive immunoprobe in the porcine heart. Am J Physiol Heart Circ Physiol.; 320(1):H66-H76. doi: 10.1152/ajpheart.00674.2020.

(American Physiological Society Select Distinction in Scholarship recognizing the best recently published articles in physiological research)

Joseph Hadaya, Una Buckley, Nil Gurel, Christopher Chan, Mohammed Swid, Niloy Bhadra, Tina Vrabec, Jonathan Hoang, Corey Smith, Kalyanam Shivkumar, and Jeffrey Ardell. (2022) Scalable and reversible axonal neuromodulation of the sympathetic chain for cardiac control. Am J Physiol Heart Circ Physiology;322(1):H105-H115

Nicholas Kluge, Shyue-An Chan, Jeffrey L Ardell and Corey Smith (2022) Time-Resolved In Vivo Measurement of Neuropeptide Dynamics by Capacitive Immunoprobe in Porcine Heart. Journal of Visualized Experiments. 2022; Issue 183

Autumn Brostek, Nancy Hong, Ronghao Zhang, Beau Forester, Lauren Barmore, Lindsey Kaydo, Nicholas Kluge, Corey Smith, Jeffrey Garvin and Agustin Gonzalez-Vicente. (2022) Independent effects of sex and stress on fructose-induced salt-sensitive hypertension. Physiological Reports. Oct;10(19):e15489.

Ibrahim T. Mughrabi, Michael Gerber, Naveen Jayaprakash, Santhoshi P. Palandira, Yousef Al-Abed, Timir Datta-Chaudhuri, Corey Smith, Valentin Pavlov, and Stavros Zanos. Voltammetry in the spleen assesses real-time anti-inflammatory norepinephrine release elicited by autonomic neurostimulation. J Neuroinflammation 20, 236 (2023).

Valerie YH van Weperen, Jonathan D Hoang, Neil R Jani, Artin Khaky, Neil Herring, Corey Smith, and Marmar Vaseghi. Circulating norepinephrine leads to release of neuropeptide Y from cardiac sympathetic nerve terminals via activation of beta-

adrenergic receptors. J Physiol. 2024 Feb 14. doi: 10.1113/JP285945.

Neil Herring, Olujimi A Ajijola, Robert D Foreman, Alexander V Gourine, Alexander Laurence Green, John W Osborn, David J. Paterson, Julian F. R. Paton, Crystal M Ripplinger, Corey Smith, Tina Vrabec, Han-Jun Wang, Irving H. Zucker, and Jeffrey Laurence Ardell. Neurocardiology: translational advancements and potential. J Physiol. 2025 Mar;603(7):1729-1779. doi: 10.1113/JP284740. Epub 2024 Sep 27.

Tina Vrabec, Shane Anthony Bender, Shyue-An Chan, Steven Cha, Sahil Haridas, Peter Hanna, Olujimi A Ajijola, Kalyanam Shivkumar, Corey Smith*, and Jeffrey Laurence Ardell*. Bioelectronic block of stellate ganglia mitigates pacing-induced heterogeneous release of catecholamine and neuropeptide Y in the infarcted pig heart. J Physiol 2024 Nov 18. doi: 10.1113/JP286924. Epub ahead of print. PMID: 39557601.

BOOK CHAPTERS, REVIEWS AND INVITED ARTICLES

Corey Smith (2004) Fast amperometric detection of catecholamine release from single chromaffin cells. Action Potentials, vol. 13, ALA Scientific.

Corey B. Smith and Lee E. Eiden (2012) Is PACAP the major neurotransmitter for stress transduction at the adrenomedullary synapse? Journal of Molecular Neuroscience. Published online May 18, 2012.

Ricardo Borges, Natalia Dominguez, Corey B. Smith, Gautam K. Bandyopadhyay, Daniel T. O'Connor, Sushil K. Mahata, and Alessandro Bartolomucci (2013) Adv Pharmacol. 2013;68:93-113.

Prattana Lopin and Corey Smith. Molecular Mechanisms of Activity-Dependent Fusion Pore Regulation in Chromaffin Cells. *A Closer Look at Membrane Fusion*. Nova Scientific

Corey Smith, Nick Kluge, Shyue-An Chan. Time-resolved measure of stress hormones in vivo by voltammetry and capacitive immunoprobe. (2022). IEEE Xplore RAPID. WA1.2 Biosensing Methods.

Prattana Lopin and Corey Smith. Autonomic control of cardiac function. Annals of Behavioral Neuroscience (Invited, in preparation).

MEDIA PRESENTATIONS

2023: Expert Panelist, Society for Research Administrators International (SRIA) Coffee Talk Webinar: A Research Administrator's Guide to AI Issues in Research and Development.

INVITED ORAL PRESENTATIONS

1995: Dept. Membrane Biophysics, Max-Planck-Institute for Biophysical Chemistry, Göttingen Germany.

1995: Dept. Cell Research, Max-Plank-Institute for Medical Research, Heidelberg Germany.

1996: Dept. Physiology, University of Edinburgh School of Medicine, Edinburgh Scotland.

1997: 25th Göttingen Neurobiology Conference. HEKA Elektronik GmBH, “Patch Clamp with PULSE” symposium lecture on practical combined electrophysiology and fluorometric data acquisition.

1997: Co-Chair; Exocytosis and Endocytosis Symposium, 42nd Annual Meeting of the Biophysical Society.

1998: Dept. Electrical Engineering, University of Missouri, Columbia Missouri.

1998: Dept. Neurophysiology, University of Wisconsin, Madison Wisconsin.

1998: Dept. Physiology and Biophysics, University of Colorado, Denver Colorado.

1998: Dept. Physiology and Endocrinology, Medical College of Georgia, Augusta Georgia.

1998: Dept. Physiology, University of Edinburgh School of Medicine, Edinburgh Scotland.

2000: National Institutes of Health, NINDS, Bethesda Maryland.

2001: University of Southern California, Los Angeles California.

2001: Vollum Institute, Portland Oregon.

2002: Department of Neurosciences, Case Western Reserve University.

2002: Department of Neurobiology and Anatomy, Medical College of Ohio, Toledo, OH.

2003: Rammelkamp Center for Research, MetroHealth Medical Center, Cleveland, OH.

2003: Department of Biology, Geneva College. Beaver Falls, PA.

2004: Marine Biological Institute, Woods Hole, MA.

2004: The Cleveland Clinic Foundation, Department of Cell Biology, Cleveland, OH.

2005: Molecular Mechanisms of Exocytosis and Endocytosis, The University of Edinburgh, Edinburgh Scotland.

2005: Neurosciences Program, UCHSC, Denver CO.

2006: Department of Physiology, University or Saarland, Homburg Germany.

2006: Department of Membrane Biophysics, Max Planck Institute for Biophysical Chemistry, Göttingen Germany.

2006: The Physiological Institute, University of Wurzburg, Wurzburg Germany.

2006: The Center for Proteomics, Case Western Reserve University, Cleveland, OH.

2007: Pharmacology Graduate Program, University of Saarland, Homburg Germany.

2007: The 9th International Neuroscience Winter Conference. Sölden Austria.

2007: Department of Pharmacology, Vanderbilt University. Nashville Tennessee.

2007: Department of Physiology and Biomedical Engineering, Mayo Clinic, Rochester MN.

2007: Department of Neurobiology and Behavior, SUNY Stony Brook, Stony Brook NY.

2007: 14th ISCCB (International Symposium for Chromaffin Cell Biology), Sestre Levante, Italy.

2007: Department of Biology, Allegheny College, Meadville PA.

2008: Section of Emergency Medicine. University of Chicago, Chicago IL.

2009: 15th ISCCB, Merida, Mexico.

2010: Australian Physiological Society/Australian Neuroscience Society, Sydney Australia.

2010: Department of Physiology, University of Massachusetts Medical School, Worcester, MA.

2010: Department of Molecular and Integrative Physiology, University of Michigan Medical School, Ann Arbor, MI.

2011: Department of Physiology and Biophysics, University of Arkansas Medical Center.

2011: 16th ISCCB. Beijing China.

2011: NIH National Institute for Mental Health, Bethesda MD.

2012: MetroHealth Research Center, Cleveland, OH.

2012: Tenth International Catecholamine Symposium, Asilomar, CA.

2013: 17th International Symposium on Chromaffin Cell Biology, Rouen, France.

2013: International Union of Physiological Societies, Birmingham, England.

2013: Wayne State University, Department of Biological Sciences, Detroit MI.

2013: GlaxoSmithKline Bioelectronics Summit, New York, NY.

2014: University of Wisconsin, Department of Neuroscience. Madison, WI.

2014: University of Colorado – Denver Medical Center, Department of Physiology. Denver CO.

2014: GlaxoSmithKline Meeting of the Bioelectronics Network, Dallas, TX.

2014: GlaxoSmithKline Meeting of the Bioelectronics Network, Raleigh, NC.

2015: 18th International Symposium on Chromaffin Cell Biology, Cairns, Australia.

2015: 25th Meeting of the International Society for Neurochemistry, Cairns, Australia.

2015: GlaxoSmithKline Meeting of the Bioelectronics Network, Atlanta, GA.

2016: Bioelectronics Approaches to Personalized Medicine, Case Western Reserve University, Cleveland OH

2016: UCLA Center for Cardiac Arrhythmia and EP Programs, University of California – Los Angeles, Los Angeles, CA.

2017: Chalmers University of Technology, Dept. of Chemistry and Chemical Engineering, Gothenburg Sweden.

2017: The Third UCLA Cardiac Autonomic Control in Health and Disease Symposium. UCLA, Los Angeles, CA.

2017: Department of Cell Biology and Neurosciences, Montana State University, Bozeman, MT.

2018: Department of Biological Engineering, UCLA, Los Angeles, CA.

2018: Department of Biological Sciences, Purdue University, West Lafayette, IN.

2018: Neuromodulation. The Science, CCF, Cleveland, OH.

2020: MetroHealth Research Institute, MetroHealth Medical Center, Cleveland, OH.

2021: BioSIS, Case Western Reserve University, Cleveland, OH.

2021: University of Toledo, Department of Neuroscience, Toledo, OH.

2022: IEEE RAPID 2022 Conference, Biosensing Methods, Miramar Beach, FL.

2023: Biophysical Society, Membrane Fusion and Budding Conference, Estes Park, CO.

2023: UCLA Cardiac Arrythmia Center, Cardiac Neurobiology Seminar Series, virtual.

2024: University of Nevada – Reno, Department of Pharmacology, Reno, NV.

TEACHING EXPERIENCE

1992: Lab instructor; Graduate level Cellular Neurobiology Laboratory. U.C.H.S.C.

1994: Lab instructor; Graduate level Cellular Neurobiology Laboratory. U.C.H.S.C.

1994: First year medical school Neurobiology tutor for U.C.H.S.C. Center for Multicultural Enrichment (CFME). U.C.H.S.C.

1995: Lab instructor; Graduate level Cellular Neurobiology Laboratory. U.C.H.S.C.

1996-1998: Lecturer; Graduate level Physiology, University of Edinburgh, Edinburgh Scotland.

1998: Lab instructor; Graduate level animal physiology techniques course, Department of Membrane Biophysics, Max-Planck Institute for Biophysical Chemistry and University of Göttingen Medical School.

1999-2000: Lecturer; Medical School Neuroscience Course (ITD 5170), Medical College of Georgia.

2000: Lecturer; Graduate School Core Course (SGS 8030), Medical College of Georgia.

2000: Lecturer; Graduate School Endocrinology Course (ENDO 8200), Medical College of Georgia.

2000: Course Director; Graduate School Laboratory Rotations, Medical College of Georgia.

2004: Faculty, Neurobiology Course; Marine Biological Laboratory, Woods Hole MA.

2002 - 2012: Lecturer; Graduate Membrane Physiology PHOL 468, Case Western Reserve University (Course Director: 2005-2012).

2002 - 2013: Lecturer; Graduate Techniques in Physiological Sciences PHOL 530, Case Western Reserve University.

2002 - 2005: Instructor; Neuromuscular Committee - Homeostasis I SOM, Case Western Reserve University

2003 – 2006: Lecturer; Microscopy for Biologists PHOL 517, Case Western Reserve

University

2004 – 2011: Course Director and Lecturer; Cell Biophysics PHOL 476, Case Western Reserve University

2006 – 2016: MSG Leader; Block 2 – 1st Year Medical Curriculum, Case Western Reserve University

2006 – 2016: MSG Leader; Block 4 – 1st Year Medical Curriculum, Case Western Reserve University

2008 – 2013: Faculty Research Mentor, Undergraduate Summer Medical and Dental Education Program (SMDEP), Case Western Reserve University School of Medicine.

2011 – Present: PHOL 481, Lecturer, Medical Physiology, Masters in Medical Physiology Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2011 – Present: PHOL 481 Lab Facilitator, Medical Physiology, Masters in Medical Physiology Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2014 – Present: Lecturer/Facilitator, Cell Biophysics PHOL 401B, Case Western Reserve University.

2016 – 2019: TBL Instructor, School of Medicine, Cardiac Electrophysiology

2017 – 2019: TBL Instructor, School of Medicine, Tyrosine kinase signaling in cancer

2017 - Present: PHOL 483, Translational Medical Physiology, Masters in Medical Physiology Graduate Program, Department of Physiology and Biophysics, Case Western Reserve University.

2017 – Present: Lecturer/Facilitator, Responsible Conduct of Research (+4) IBMS 501, Case Western Reserve University.

2019 – 2023: Lecturer/Facilitator, Nobel Prize Readings IBMS 456, Case Western Reserve University.

2019 – Present: Lecturer/Facilitator, Systems and Organ Physiology PHOL 401C, Case Western Reserve University.

2019 – Present: Facilitator, SAMI (Science and Medicine Integrated), Heart Failure, 3rd Year Medical Curriculum, Case Western Reserve University.

2020 – Present: Facilitator, SAMI (Science and Medicine Integrated), Diabetic Ketoacidosis, 3rd Year Medical Curriculum, Case Western Reserve University.

2020 – Present: Facilitator, SAMI (Science and Medicine Integrated), COVID-19, 3rd Year Medical Curriculum, Case Western Reserve University.

2020 – Present: Lecturer/Facilitator, Cell and Molecular Biology (C3MB), IBMS453, Case Western Reserve University.

2023 – Present: Lecturer, Cell Signaling PHOL 466, Case Western Reserve University.

2023 - Present: Lecturer, Introduction to Aerospace Physiology I, PHOL 421, Case Western Reserve University.

STUDENTS AND POSTDOCTORAL FELLOWS MENTORED

Students and Postdoctoral Fellows:

1997-1998: Lars Windhorn, Diplom candidate (German equivalent to a Masters in Science degree). Max-Planck Institute for Biophysical Chemistry, Department of Membrane Biophysics, Göttingen, Germany.

1999-Present: Shyue-An Chan, Ph.D., Postdoctoral Fellow/Senior Research Associate, Department of Physiology and Endocrinology, Medical College of Georgia and Case Western Reserve University

2000: Jordan Estroff, Department of Physiology, Medical College of Georgia. Graduated from Washington University, St. Louis MO.

2001: Erin Strome, Undergraduate SURP program – Miami University of Ohio. (Currently Associate Professor, University of Northern Kentucky).

2001: Philip Kaplan (undergraduate), Department of Physiology and Biophysics, Case Western Reserve University.

2001-2003: Xiaofeng Yu, Department of Physiology and Biophysics, Case Western Reserve University (Masters Degree).

2002-2004: Steven Radabaugh, Department of Physiology and Biophysics, Case Western Reserve University (Master's Degree).

2004 – 2009: Tiberiu Fulop, Postdoctoral Fellow, Department of Physiology and Biophysics, Case Western Reserve University

2004-2008: Anita Pawar, Graduate Student (Co-advisor), Department of Physiology and Biophysics, Case Western Reserve University.

2004; 2005: Katherine Trueblood, Undergraduate Summer Research Program. Geneva College, Beaver Falls PA. Fall 2006, entering the graduate program in Cell Physiology, Department of Physiology and Biophysics, Case Western Reserve University.

2006 – 2009: Bryan Doreian, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University.

2006 – 2009: Barbara Kuri, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University; 2007, Predoctoral Fellowship, AHA (Declined); 2008 Honorable Mention, Case Research Showcase.

2006 – 2008: Thomas Ladas, MSTP student, department of Biomedical Engineering, Case Western Reserve University. Co-advisor.

2007: Laura Hazen, Student, Lowell High School, Biomedical Science Research Internship.

2008 – 2012: Jacqueline Hill, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University; 2010-2012 Predoctoral Fellowship, AHA. Travel Grant award to attend the 56th annual meeting of the Biophysical Society, Baltimore MD (Currently Associate Professor, Ohio University).

2009 – 2014: Prattana Samasilp, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University; 2011 Student Research Achievement Award winner at the 55th annual meeting of the Biophysical Society, Baltimore MD; 2012 Student Research Achievement Award winner at the 56th annual meeting of the Biophysical Society, San Diego, CA.

2010: Kiara Vann, Undergraduate SURP student, Winston-Salem State University. Winston-Salem NC.

2011: Adrienne Bean, Undergraduate SURP student, Vanderbilt University, Nashville, TN.

2011-2012: Sunil Iyer, Masters Student, Master's in Medical Physiology, Department of Physiology and Biophysics, Case Western Reserve University.

2012: Angelique Do, Masters Student, Master's in Medical Physiology, Department of Physiology and Biophysics, Case Western Reserve University.

2012 - 2016: Neil Goldsmith, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University.

2013, 2014: Bryan Wey, Undergraduate SURP student, Case Western Reserve University.

2014 – 2017: Dong Liu, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University.

2017: Jacob Countryman, Graduate Student, Department of Physiology and Biophysics, Case Western Reserve University.

2016 - 2017: Jinlong Li, Undergraduate Student, Department of Biochemistry, Case Western Reserve University.

2016 – 2017: Sara Taki, Volunteer Visiting Scholar, Department of Physiology and Biophysics, Case Western Reserve University.

2019: Chelsea Zhang, high school student volunteer, Beachwood High school, Beachwood, OH.

2021: Rachel Forbes, MS in Medical Physiology student, Case Western Reserve University.

2024 – Present: Sarah Hickle, MS in Physiology and Biophysics, Case Western Reserve University.

Graduate Thesis Committee Service:

2001: Sydney Pit Thang (Ph.D.).
2001 – 2007: James Conway (Ph.D.).
2001 – 2003: Theresa Fagan (Ph.D.).
2002 – 2003: Xiaofeng Yu (Terminal Masters).
2002 – 2004: Stephen Radabaugh (Terminal Masters).
2003: Amy Nulton-Person (Ph.D.).
2003 – 2004: Anna Dang (Terminal Masters).
2003 – 2008: Radu Iancu (Ph.D.).
2003 – 2004: Carl Sims (Ph.D.).
2003 – 2007: Amr El-Toukhy (Ph.D.).
2004 – 2009: Mark Breckenridge (Ph.D.).
2004 – 2010: Toni Prosdocimo (Ph.D.).
2004 – 2007: Aaron Brister (Terminal Masters).
2005 – 2012: Jordan Beach (Ph.D.).
2005 – 2010: Andrew Blum (Ph.D.).
2005 – 2009: Michelle Biedelschies (Ph.D.).
2005 – 2009: Nick Cianciola (Ph.D.).
2006 – 2007: George Aranjuez (Ph.D.).
2007 – 2012: Andrew Caprariello (Ph.D.).
2007 – 2013: Kyle Lopin (Ph.D.).
2007 – 2014: Quentin Jameson (Ph.D.).
2007 – 2011: Katherine Trueblood-Doreian (Ph.D.).
2007 – 2011: Jane Kim (Ph.D.).
2007 – 2009: E. Chep Yego (Ph.D.).
2008 – 2013: Yi-Hsin Cheng (Ph.D.).
2008 – 2011: Jeffrey Lock (Ph.D.).
2009 – 2011: Sarah Zilka (Terminal Masters)
2009 – 2014: Ross Anderson (Ph.D.).
2010: Jason Lefkowitz (University of Massachusetts, Worchester, Ph.D.).
2010 – 2017: Drew Nasal (Ph.D.).
2011 – 2016: Michelle Jennings (Ph.D.).
2010 – 2014: Sheela Toprani (Ph.D.).
2010 – 2012: Austin Coley (Masters).
2012 – 2015: Malcolm Hoshi (MSTP).

2012 – 2015: Nicholas Courtney (Ph.D.).
2012 – 2015: Michael Katsnelson (Ph.D.).
2013 – 2019: Kate Fu (Ph.D.).
2014 – 2017: Pamela Marcott (MSTP).
2014 – 2019: Soumili Chaterjee (Ph.D.).
2015 – 2019: Jie Yang (Ph.D.)
2017: Hoda Fathali (Chalmers Technical University, Gothenburg Sweden, Ph.D.)
2017- 2022: Sheng Gong (Ph.D.).
2017 – 2019: Di Hu (Ph.D.).
2017 – 2020: Yuan Cai (Ph.D.).
2018 – Present: Sara Taki (Ph.D.)
2019 – Present: Eva Gilker (Ph.D.)
2021 - Present: Kevin Felt (Ph.D.)
2021 - Present: Kayla Kindig (Ph.D.)
2021 - 2023: Raisa Echols (Ph.D.)
2021 – Present: Taylor Benske (Ph.D.)
2023 - Present: Xi (Chelsea) Chen (Ph.D.)
2023 - Present: Jianxian Pan (Ph.D.)
2023 – Present: Joshua Holmes (Ph.D.)
2023 - Present: Tristan Lewis (Ph.D.)
2024 - Present: Bianca De Freitas Brenha (Ph.D.)
2024 - Present: Beverlee Wood (Ph.D.)

Graduate Student Lab Rotations:

2001: Xiaofeng Yu - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2001: Michelle Innocenti (Biedelschies) - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2001: Stephen Radabaugh - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2002: Kristin King - Systems Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2004: Nikolas Balanis - Biophysics Program, Department of Physiology and Biophysics, Case Western Reserve University.

2005: Anita Pawar - Systems Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2005: David Chess - Systems Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2005: Liang Xu - Biophysics Program, Department of Physiology and Biophysics, Case Western Reserve University.

2005: Barbara Kuri - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2006: Kyle Lopin - Biophysics Program, Department of Physiology and Biophysics, Case Western Reserve University.

2006: Thomas Ladas - Medical Sciences Training Program (MSTP), School of Medicine, Case Western Reserve University.

2008: Jacqueline Hill - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2008: Robert Mecklemburg - Biophysics Program, Department of Physiology and Biophysics, Case Western Reserve University.

2008: Pratanna Samasilp - Cell Physiology Program, Department of Physiology and Biophysics, Case Western Reserve University.

2009: Zienab Etwabi – Cell Physiology Master's Program, Department of Physiology and Biophysics, Case Western Reserve University.

2011: Nicholas Courtney, Department of Physiology and Biophysics, Case Western Reserve University.

2011: Sam Chai, Department of Physiology and Biophysics, Case Western Reserve University.

2012: Neil Goldsmith, Department of Physiology and Biophysics, Case Western Reserve University.

2012-2013: Amrita Samanta, Department of Physiology and Biophysics, Case Western Reserve University.

2013: Peyvand Amini, Department of Physiology and Biophysics, Case Western Reserve University.

2014: Huan Zhang, Department of Physiology and Biophysics, Case Western Reserve University.

2014: Dong Liu, Department of Physiology and Biophysics, Case Western Reserve University.

2015: Dan McHugh, Biomedical Sciences Training Program, Case Western Reserve University.

2017: Sara Taki, Department of Physiology and Biophysics, Case Western Reserve University.

2019: Sarah Mason, Biomedical Sciences Training Program, Case Western Reserve University.

ABSTRACTS

C. Smith and W. Betz (1994) Bovine adrenal chromaffin cells internalize the dye FM1-43 in an activity dependent manner. Society for Neuroscience, 297.11.

C. Smith and W. Betz (1995) Simultaneous fluorescence microscopy and capacitance measurements in bovine adrenal chromaffin cells. Society for Neuroscience, 138.2.

C. Smith and E. Neher (1996) Multiple forms of endocytosis revealed in capacitance recordings in bovine adrenal chromaffin cells. 25th Göttingen Neurobiology conference, Abs. #992.

C. Smith and E. Neher (1997) Multiple forms of endocytosis revealed in bovine adrenal chromaffin cells. 42nd Annual Meeting of the Biophysical Society.

T. Moser*, C. Smith*, T. Xu and E. Neher (1997) Recovery of the Readily Releasable Vesicle Pool in Adrenal Chromaffin Cells is Regulated by Ca^{2+} and PKC. 42nd Annual Meeting of the Biophysical Society (* Contributed equally to the work).

C. Smith, T. Moser, T. Xu and E. Neher (1997) Recovery of the Readily Releasable Vesicle Pool in Adrenal Chromaffin Cells is Regulated by Ca^{2+} and PKC. 26th Göttingen Neurobiology conference.

V. Dinkelacker, T. Moser, C. Smith, H. v. Gersdorff and E. Neher (1998) Temperature effects on exo- and endocytosis in bovine adrenal chromaffin cells. Society for Neuroscience, 36.8.

S. Chan and C. Smith (2001) Physiological Stimuli Evoke Two Forms of Endocytosis In Chromaffin Cells. 46th Annual Meeting of the Biophysical Society.

S. Chan and C. Smith (2002) Calcium Dependence Of Action Potential-Induced Endocytosis In Chromaffin Cells. 47th Annual Meeting of the Biophysical Society.

C. Smith and S. Chan (2002) Phase I endocytosis is dependent on PKC and PI3Kinase but not calcineurin in mouse chromaffin cells *In Situ*. Gordon Research Conference for Cell Biology of the Neuron.

Shyue-An Chan, Luis Polo-Parada, Lynn Landmesser, and Corey Smith (2004) Adrenal Chromaffin Cells Exhibit Altered Granule Size And Fusion Competence In NCAM Knockout Mice. Experimental Biology.

R. ZhuGe, V. DeCrescenzo, C. Smith, R. A. Tuft, K. E. Fogarty, and J. V. Walsh Jr. (2005) Syntillas release Ca2+ into a microdomain different from the site of exocytosis in mouse chromaffin cells. Biophysical Society.

Shyue-An Chan, Luis Polo-Parada, Corey Smith (2005) Action potential stimulation

reveals a preferential P/Q-calcium channel dependent exocytosis in mouse adrenal tissue slices. Experimental Biology

Tiberiu Fulop, Stephen Radabaugh, Corey Smith (2005) Activity-dependent differential transmitter release in mouse adrenal chromaffin cells. CWRU Research Showcase.

Tiberiu Fulop and Corey Smith (2006) Physiological Stimulation Regulates Fusion Pore Dilation Through Calcium activation of Protein Kinase C in Mouse Chromaffin Cells. 50th Annual Meeting of the Biophysical Society.

Luis Polo-Parada, Shyue-An Chan and Corey Smith (2006) Physiological stimulation augments L-type Ca^{2+} channel-dependent exocytosis in mouse adrenal chromaffin cells. 50th Annual Meeting of the Biophysical Society.

Hong Wang, Shyue-An Chan, David Hellard, Qifang Wang, Michael Ogier, Corey Smith and David Katz. (2006) BDNF and respiratory dysfunction in MeCP2 null mice. 7th Annual Rett Syndrome Symposium.

Tiberiu Fulop and Corey Smith. (2007) Regulation of the mode of exocytosis in mouse adrenal chromaffin cells. 9th International Neuroscience Winter Conference.

Barbara Kuri, Shakil Kahn, Nanduri Prabhakar and Corey Smith (2008) Increased Secretory Capacity of Mouse Adrenal Chromaffin Cells By Intermittent Hypoxia: Involvement of Protein Kinase C. Annual Meeting for Experimental Biology

Bryan Doreian, Tiberiu Fulop and Corey Smith (2008) Myosin II activation and actin re-organization regulate the mode of quantal exocytosis in mouse adrenal chromaffin cells. Annual Meeting for Experimental Biology

Corey Smith, Shyue-An Chan and Barbara Kuri (2009) PACAP regulates immediate catecholamine release from adrenal chromaffin cells in an activity dependent manner through a protein kinase C-dependent pathway. Neuropeptides: 19th Neuropharmacology Conference Satellite Meeting of the Society for Neuroscience meeting.

Bryan Doreian, Tiberiu Fulop and Corey Smith (2009) Cortical F-Actin, the Exocytic Mode and Neuropeptide Release in Mouse Chromaffin Cells is Regulated by MARCKS and Myosin II. Neuropeptides: 19th Neuropharmacology Conference Satellite Meeting of the Society for Neuroscience meeting.

Corey Smith (2010) Activity-dependent regulation of the fusion pore and mode of secretion from adrenal chromaffin cells. ANS/AuPS 2010.

Kiara Vann, Mark Parker and Corey Smith (2010) "Differential Activation of Chromaffin Cell Isotypes in Septic Shock" Annual Biomedical Research Conference for Minority Students (ABRCMS).

Prattana Samasilp, Bryan Doreian, Shyue-An Chan and Corey Smith (2010) Activity-dependent fusion pore dilation mediated by a dynamin I-syndapin pathway. Annual Meeting of the Biophysical Society. (Winner of the Student Research Achievement Award at the 56th annual meeting of the Biophysical Society, Baltimore MD).

Jackie Hill Tudor, Shyue-An Chan and Corey Smith (2010) PACAP-evoked adrenal excitation is due to membrane depolarization and facilitation of an LVA calcium channel. Annual Meeting of the Biophysical Society. Awarded a Travel Grant to attend the 56th annual meeting of the Biophysical Society (Baltimore MD).

Shyue-An Chan, Jackie Hill, Corey Smith (2011) PACAP-dependent excitation of the adrenal medulla under the acute sympathetic stress response.
16th ISCCB.

Corey Smith, Prattana Samasilp, Bryan Doreian (2011) Molecular regulation of the fusion pore. 16th ISCCB.

Jacqueline Hill and Corey Smith (2012) Non-cholinergic acute sympathetic stress enhances gap junction coupling in the mouse adrenal medulla. 57th annual meeting of the Biophysical Society (San Diego, CA).

Prattana Samasilp, Shyue-An Chan and Corey Smith (2012) Dynamin I regulates activity-dependent fusion pore dilation via a calcineurin-dependent pathway in mouse adrenal chromaffin cells. 57th annual meeting of the Biophysical Society (San Diego, CA).

Corey Smith (2013) PACAP as a master regulator of the acute stress response. 17th ISCCB, Rouen France.

Corey Smith (2013) Activity-mediate expansion of the secretory fusion pore is regulated by a calcineurin-dependent dynamin-syndapin signaling pathway in neuroendocrine mouse adrenal chromaffin cells. IUPS, Birmingham England.

Corey Smith (2014) Electrochemical detection of catecholamine and enkephalin release from an ex vivo splanchnic-adrenal preparation in rat. GSK Bioelectronics Summit.

Corey Smith (2015) Activity-dependent catecholamine release from the adrenal medulla under native neural stimulation. GSK Bioelectronics Summit.

Corey Smith (2015) Molecular regulation of the fusion pore in neuroendocrine secretion. International Society for Neurochemistry, Cairns, Australia.

David Litvin, Corey Smith and Frank Jacono. (2016) Understanding the tripartite synapse: Dynamics in synaptic efficacy during systemic inflammation. CWRU Research Showcase.

David Litvin, Corey Smith and Frank Jacono (2017) Microglia promote post-synaptic depression of sensory relay neurons in the nucleus tractus solitarii following acute lung

injury. Society for Neuroscience.

David Litvin, Corey Smith and Frank Jacono (2017) Microglia promote age-dependent post-synaptic GluR2 insertion in the nucleus tractus solitarius following neonatal acute lung injury. FASEB.

Kara Zang, Corey Smith and Lori Zeltser (2019) Direct Measurements of Sympathetic Input To Brown Adipose Tissue In Lean And Obese Mice. SPARC at ISAN 2019.

Hossein Zamani, Shyue-An Chan, Corey Smith and Pedram Moheseni. A neurochemical recording microsystem with analog background current subtraction and 400 V/s FSCV sensing using 1st order ΔΣM. 2020 IEEE 63rd International Midwest Symposium on Circuits and Systems (MWSCAS), Springfield, MA.

Nicholas Kluge, Michael Dacey, Joseph Hadaya, Kalyanam Shivkumar, Shyue-An Chan, Jeffrey L. Ardell and Corey Smith (2020) High time resolution measurement of neuropeptides by capacitive immunoprobe in a beating porcine heart. CVRI Research Retreat, Cleveland, OH.

Augustin Gonzalez-Vicente, Ronghao Zhang, Lindsey Kaydo, Nicholas Kluge, Corey Smith, Nancy Hong and Jeffrey Garvin (2022) Sex And Stress In Fructose-induced Salt-sensitive Hypertension. American Heart Association.

Valerie van Weperen, Jonathan D Hoang, Neil Jani, Maryam Emamimeybodi, Sartaj Bal, Corey Smith, Marmar Vaseghi. (2023) Circulating norepinephrine leads to release of neuropeptide Y at cardiac sympathetic nerve terminals. American College of Cardiology.

Jani N, Van Weperen VV, Emamimeybodi M, Chan C, Hoang J, Bal S, Smith CB, Vaseghi M. (2023) Neuropeptide Y receptor inhibitor enhances effects of vagal nerve stimulation and reduces effects of sympathetic activation: assessments using real-time electrophysiological and myocardial neuropeptide measurements. American College of Cardiology.

Corey Smith, Tina Vrabec, Shane Bender, Shyue-An Chan and Jeffrey L. Ardell (2024) Regulation of cardiac neurotransmitters by axonal modulation. International Society Neuroscience.

Shane Bender, Corey Smith, Shyue-An Chan, Jeffrey L. Ardell, and Tina Vrabec (2024) Closed loop control of Norepinephrine (NE) to attenuate sympathetic response to cardiac stressors. ISAN 2024