

CURRICULUM VITAE

Thomas Cahill Resta

DATE:

October 22, 2020

NAME AND TERMINAL DEGREE:

Thomas C. Resta, Ph.D.

PROFESSIONAL ADDRESS:

University of New Mexico Health Sciences Center
Department of Cell Biology and Physiology
1 University of New Mexico
MSC08 4750
Albuquerque, NM 87131
Telephone: 505-272-8822
FAX: 505-272-6649
E-mail: tresta@salud.unm.edu
Home Page: <https://vivo.health.unm.edu/display/n524>

EDUCATIONAL HISTORY:

- Ph.D. Physiology, University of New Mexico School of Medicine, Albuquerque, NM, 1995. Regents Endowed Fellow.
- B.S. Biology (Minor: Chemistry), University of New Mexico, Albuquerque, NM, 1990.

POSTDOCTORAL TRAINING:

- Department of Cell Biology and Physiology, University of New Mexico Health Sciences Center (Postdoctoral Research Fellow, American Heart Association and NIH NRSA, 1995-1998).

EMPLOYMENT HISTORY:

- Senior Associate Dean for Research Education, University of New Mexico School of Medicine, Albuquerque, NM, 2020-present.
- Professor, Department of Cell Biology and Physiology, University of New Mexico Health Sciences Center, Albuquerque, NM, 2012-present.
- Associate Professor, Department of Cell Biology and Physiology, University of New Mexico Health Sciences Center, Albuquerque, NM, 2006-2012.
- Assistant Professor, Department of Cell Biology and Physiology, University of New Mexico Health Sciences Center, Albuquerque, NM, 2000–2006.
- Research Assistant Professor, Department of Cell Biology and Physiology, University of New Mexico Health Sciences Center, Albuquerque, NM, 1998–2000.
- Postdoctoral Fellow, Department of Physiology, University of New Mexico School of Medicine, Albuquerque, NM, 1997-1998.
- Postdoctoral Research Associate, Department of Physiology, University of New Mexico School of Medicine, Albuquerque, NM, 1995-1997.

- Graduate Research Assistant, Department of Physiology, University of New Mexico School of Medicine, Albuquerque, NM, 1991-1995.
- Research Assistant, Department of Biology, University of New Mexico, Albuquerque, NM, 1990.
- Research Assistant, Department of Physiology, University of New Mexico School of Medicine, Albuquerque, NM, 1985.

PROFESSIONAL RECOGNITION:

- Faculty Research Excellence Award for Basic Science Research, UNM Health Sciences Center, 2019.
- Elected Fellow of the American Physiological Society (FAPS), 2019.
- HIPPO Award, Best Lecturer in Phase I as voted by the UNM M.D. Class of 2021.
- William G. Dail Award for outstanding and lasting contributions as a teacher, mentor and leader in the medical and graduate education programs at the UNM School of Medicine, 2017-2020.
- Educational Excellence Award for Faculty, Teaching, Phase I Medical Curriculum, UNM School of Medicine, 2014-2015.
- Elected Fellow of the American Heart Association (FAHA), Council on Basic Cardiovascular Sciences, 2011; Council on Cardiopulmonary, Critical Care and Resuscitation, 2013.
- Educational Excellence Award for Faculty, Teaching, Phase I Medical Curriculum, UNM School of Medicine, 2010-2011.
- Fellow of the Pulmonary Vascular Research Institute, 2010.
- New Investigator Award, American Physiological Society, Respiration Section, 2005.
- Educational Excellence Award for Faculty, Teaching, Biomedical Sciences Graduate Program, UNM School of Medicine, 2004-2005.
- Parker B. Francis Fellowship in Pulmonary Research, Harvard School of Public Health, 2000-2003.
- Dean's Award of Distinction in Recognition of Outstanding Faculty Performance, UNM Health Sciences Center, 2000.
- Sidney Solomon Memorial Award for Excellence in Integrative Physiology, UNM Health Sciences Center, 1998.
- NIH/NHLBI National Research Service Award Individual Postdoctoral Fellowship, 1997-1999.
- American Heart Association Postdoctoral Fellowship, New Mexico Affiliate, 1996-1997.
- Graduate Achievement Award, University of New Mexico, 1992.
- Regents Endowed Fellowship, University of New Mexico, 1991.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

- American Physiological Society
- American Heart Association, Council on Basic Cardiovascular Sciences, Council on Cardiopulmonary and Critical Care
- American Thoracic Society
- Microcirculatory Society

- North American Vascular Biology Organization
- Pulmonary Vascular Research Institute

OTHER EXTRAMURAL PROFESSIONAL ACTIVITIES:

EDITORSHIPS:

- Editor, Comprehensive Physiology, Respiration Section: Pulmonary Circulation/Non-Respiratory Functions, 2017-present.
- Editor, American Thoracic Society, Pulmonary Circulation Assembly On-Line Journal Club, Pulmonary Hypertension/Vascular Remodeling Section, 2004-2007

EDITORIAL BOARD MEMBERSHIPS (PAST AND PRESENT):

- American Journal of Physiology – Heart and Circulatory Physiology
- American Journal of Physiology - Lung Cellular and Molecular Physiology
- Frontiers in Respiratory Physiology
- Frontiers in Vascular Physiology
- Pulmonary Circulation

ADHOC REVIEWER FOR PROFESSIONAL JOURNALS:

- American Journal of Physiology - Cell Physiology
- American Journal of Physiology - Heart and Circulatory Physiology
- American Journal of Physiology - Lung, Cellular and Molecular Physiology
- American Journal of Physiology - Regulatory, Integrative and Comparative Physiology
- American Journal of Respiratory and Critical Care Medicine
- American Journal of Respiratory Cell and Molecular Biology
- Antioxidants and Redox Signaling
- British Journal of Anesthesia
- Canadian Journal of Physiology and Pharmacology
- Circulation Research
- Clinical Science
- Comprehensive Physiology
- Current Opinion in Pharmacology
- European Respiratory Journal
- Free Radical Biology and Medicine
- Frontiers in Respiratory Physiology
- Frontiers in Vascular Physiology
- Hypertension
- Hypoxia
- Journal of Applied Physiology
- Journal of Cardiovascular Pharmacology
- Journal of Pharmacology and Experimental Therapeutics
- Journal of Vascular Research
- Molecular and Cellular Biochemistry

- Nature Reviews Cardiology
- Physiological Research
- PLoS One
- Pulmonary Pharmacology and Therapeutics
- Regulatory Peptides

REVIEWING FOR NATIONAL FUNDING ORGANIZATIONS:

- NIH-NHLBI Pulmonary Diseases Special Emphasis Review Panel, 2019.
- NIH-NHLBI T32 Diversity Training Grants Study Section, 2019-present.
- NIH-NHLBI T32 Training Grants Special Emphasis Review Panel, 2016, 2019.
- NIH-NHLBI Respiratory Integrative Biology and Translational Research (RIBT) Study Section, 2004, 2008, 2018.
- NIH-NHLBI T32 Diversity Training Grants Special Emphasis Review Panel, 2016.
- American Heart Association, Lung Respiration and Resuscitation – Basic Science 2, National Peer Review Committee, 2012-2014.
- NIH IdeA Networks of Biomedical Research Excellence (INBRE) subproject review committee, 2012.
- American Heart Association, Lung Respiration and Resuscitation, National Peer Review Committee, 2007-2008.

EXTERNAL ADVISORY COMMITTEES:

- Member, Advisory Board, NIH/NHLBI Division of Cardiovascular Sciences, Diversity Training Programs. Rockville, MD, 2018-present.
- Member, Advisory Board, NIH R25 HL084762 “Short-term Training Program to Increase Diversity in Health-Related Research”. Johns Hopkins School of Medicine, L.A. Shimoda, PI, 2017-present.

ADMINISTRATIVE WORK WITH PROFESSIONAL SOCIETIES:

- Member, American Physiological Society, Respiration Section, Awards Committee, 2018.
- Member, American Heart Association, National Portfolio Management Subcommittee Commission, 2016-2018.
- Past Chairman, American Heart Association, Southwest Affiliate Research Committee, 2014-2015.
- Chairman, American Heart Association, Southwest Affiliate Research Committee, 2013-2014.
- Member, American Heart Association Southwest Affiliate Board of Directors, 2013-2014.
- Member, American Heart Association Southwest Affiliate, Check Change Control Hypertension Task Force, 2014.
- Vice Chairman, American Heart Association, Southwest Affiliate Research Committee, 2011-2013.
- Member, American Physiological Society, Committee on Committees, 2010-2014.

- Member, American Physiological Society, Respiration Section, Steering Committee, 2008-2014.
- Member, American Physiological Society, Respiration Section, Program Committee, 2008-2012.
- Member, American Heart Association, Southwest Affiliate Research Committee, 2011.
- Member, American Heart Association, South Central Affiliate Research Committee, 2007-2010.
- Chairman, American Physiological Society, Respiration Section, Nominations Committee, 2008-2010.
- Abstract Reviewer, Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference, Austin, TX, 2004.

INVITED SYMPOSIA:

- Conference: Experimental Biology 2010, Anaheim, CA.
Featured Topic: “Pulmonary Hypertension: Mechanisms and Mediators”
Presentation Title (Featured Presentor): “Reactive Oxygen Species and RhoA Signaling in Vascular Smooth Muscle: Role in Chronic Hypoxia-Induced Pulmonary Hypertension”
- Conference: Grover Conference: Membrane Receptors, Channels, and Transporters in Pulmonary Circulation: Role in the Development of Pulmonary Vascular Disease, Sedalia, CO, 2008.
Symposium: “Receptors and Transporters: Role in Pulmonary Arterial Hypertension, Cell Growth, and Apoptosis”
Presentation Title: “Rho kinase and Receptor-Mediated Signaling in Pulmonary Vascular Smooth Muscle Following Chronic Hypoxia”
- Conference: Grover Conference: Rho Family GTPases in Pulmonary Vascular Pathophysiology, Sedalia, CO, 2006.
Symposium: “Rho GTPases in Vascular Tone Regulation”
Presentation Title: “Interaction Between Nitric Oxide and RhoA in Hypoxic Pulmonary Hypertension”
- Conference: Third Annual Symposium of the New Mexico Biomedical Research Infrastructure Network, Las Cruces, NM, 2004.
Presentation Title: “Mechanisms of Altered Nitric Oxide Signaling in Pulmonary Vascular Smooth Muscle Following Chronic Hypoxia”
- Conference: American Heart Association Scientific Sessions, Orlando, FL, 2003.
Symposium: American Heart Association Research Symposium
Presentation Title: “Estradiol-Mediated Inhibition of Hypoxic Pulmonary Hypertension”
- Conference: Second Annual Symposium of the New Mexico Biomedical Research Infrastructure Network, Taos, NM, 2003.
Presentation Title: “Estradiol-Induced Attenuation of Hypoxic Pulmonary Hypertension”
- Conference: American Thoracic Society 98th International Conference, Atlanta, GA, 2002.
Symposium: Kenneth M. Moser Memorial Symposium, “Special Topics in

Pulmonary Physiology: The Next Generation”

Presentation Title: “Estradiol-Induced Attenuation of Hypoxic Pulmonary Hypertension”

- Conference: Experimental Biology 1995, Atlanta, GA.

Presentation Title: “Estradiol-Induced Attenuation of Hypoxic Pulmonary Hypertension”

INVITED SEMINARS:

- University of New Mexico School of Medicine, “Research Education at the UNM School of Medicine,” 2020.
- University of Illinois at Chicago, Division of Pulmonary, Critical Care, Sleep and Allergy, “Vascular Oxidant Signaling in Hypoxic Pulmonary Hypertension,” 2019.
- Albany Medical College, Dept. of Molecular and Cellular Physiology, “Vascular Oxidant Signaling in Hypoxic Pulmonary Hypertension,” 2019.
- University of New Mexico Health Sciences Center, Dept. of Internal Medicine, Division of Pulmonary, Critical Care and Sleep Medicine, “Vascular Oxidant Signaling in Hypoxic Pulmonary Hypertension,” 2015.
- University of New Mexico Health Sciences Center, Clinical and Translational Science Center (CTSC) Synergy Series, “Pulmonary Hypertension Following Intermittent Hypoxia,” 2014.
- University of New Mexico, School of Medicine, Neuroscience Seminar Series, “RhoA-Mediated Pulmonary Vasoconstriction Following Chronic Hypoxia,” 2010.
- The Ohio State University, The Research Institute at Nationwide Children’s Hospital, Columbus, Ohio, “Rho kinase-Induced Pulmonary Vasoconstriction Following Chronic Hypoxia,” 2008.
- University of New Mexico Health Sciences Center, Signature Research Program Ground Rounds, Albuquerque, NM, “Rho kinase-Induced Pulmonary Vasoconstriction Following Chronic Hypoxia,” 2006.
- Colorado State University, Department of Biomedical Sciences, Fort Collins, CO, “Nitric Oxide-Induced Pulmonary Vasodilation Following Chronic Hypoxia,” 2006.
- New Mexico NIEHS Center, Albuquerque, NM, “Mechanisms of Altered NO-Dependent Pulmonary Vasodilation Following Chronic Hypoxia,” 2003.
- University of New Mexico, School of Medicine Leading-Edge Research Series, Albuquerque, NM, “Research Programs of the UNM Vascular Physiology Group,” 2002.
- University of New Mexico Health Sciences Center, Department of Cell Biology and Physiology, Albuquerque, NM, “Estrogen-Induced Attenuation of Hypoxic Pulmonary Hypertension,” 2000.
- Eli Lilly, Greenfield, IN, “Augmented Endothelium-Dependent Arterial Dilatation in Pulmonary Hypertension,” 1998.

MEETING SESSIONS CHAIRED:

- Co-chair and co-organizer (with Larissa Shimoda, Ph.D.), Featured Topic: “Pulmonary Hypertension: Mechanisms and Mediators,” Experimental Biology 2010, Anaheim, CA.

- Meeting co-organizer and session Chair, Third Annual Symposium of the New Mexico Biomedical Research Infrastructure Network, Las Cruces, NM, 2004.

EXTERNAL REFEREE FOR FACULTY PROMOTION/TENURE:

- University of Tennessee (11/15)
- Johns Hopkins University (1/14)
- The Ohio State University (10/11)
- University of South Alabama (3/10)
- University of South Alabama (3/08)

SCHOLARLY ACHIEVEMENTS RELATED TO RESEARCH:

WORKS IN PROGRESS:

SUBMITTED ORIGINAL RESEARCH ARTICLES:

- Sheak JR, Jones DT, Lantz BJ, Maston LD, Vigil D, **Resta TC**, Guo Y, Jankowska-Gan E, Sullivan J, Braun R, Burlingham W, Gonzalez-Bosc, L. NFATc3 regulation of collagen V contributes to autoimmunity in hypoxic pulmonary hypertension. *Am J Physiol*.

ORIGINAL RESEARCH ARTICLES IN REFEREED JOURNALS:

1. Garcia SM, Herbert LM, Walker BR, **Resta TC**, Jernigan NL. Coupling of store operated calcium entry to vasoconstriction is acid sensing ion channel 1 dependent in pulmonary but not mesenteric arteries. *PLoS ONE*. In press.
2. Snow JB, Norton CE, Sands SA, Weise-Cross L, Yan S, Herbert LM, Sheak JR, Gonzalez Bosc LV, Walker BR, Kanagy NL, Jernigan NL, **Resta TC**. Intermittent hypoxia augments pulmonary vasoconstrictor reactivity through PKC β /mitochondrial oxidant signaling. *Am J Respir Cell Mol Biol*. 62(6):732-746, 2020.
3. Norton CE, Weise-Cross L, Ahmadian R, Yan S, Jernigan NL, Paffett ML, Naik JS, Walker BR, **Resta TC**. Altered lipid domains facilitate enhanced pulmonary vasoconstriction following chronic hypoxia. *Am J Respir Cell Mol Biol*. 62(6):709-718, 2020. (**Associated Editorial:** Grimmer B, Kuebler WM. Cholesterol – a novel regulator of vasoreactivity in pulmonary arteries. *Am J Respir Cell Mol Biol*. 62(6):671-673, 2020.)
4. Sheak JR, Yan S, Weise-Cross L, Ahmadian R, Walker BR, Jernigan NL, **Resta TC**. PKC β and reactive oxygen species mediate enhanced pulmonary vasoconstrictor reactivity following chronic hypoxia in neonatal rats. *Am J Physiol*. 318 (2), H470-H483, 2020. (**APSselect Award** for distinction in scholarship)
5. Norton CE, Sheak JR, Yan S, Weise-Cross L, Jernigan NL, Walker BR, **Resta TC**. Augmented pulmonary vasoconstrictor reactivity following chronic hypoxia requires Src kinase and epidermal growth factor receptor signaling. *Am J Respir Cell Mol Biol*. 62(1):61-73, 2020. (**Associated Editorial:** Gao Y, Raj JU. Src and EGFR: Novel partners in mediating chronic hypoxia-induced pulmonary artery hypertension. *Am J Respir Cell Mol Biol*. 62(1):5-7, 2020.)
6. Detweiler ND, Herbert LM, Garcia SM, Yan S, Vigil KG, Sheak JR, **Resta TC**, Walker BR, Jernigan NL. Loss of acid sensing ion channel-2 enhances pulmonary vascular resistance and hypoxic pulmonary hypertension. *J Appl Physiol*.

- 127(2):393-407, 2019.
7. Maston LD, Jones DT, Giermakowska W, **Resta TC**, Ramiro-Diaz J, Howard TA, Gonzalez Bosc L. Interleukin-6 trans-signaling contributes to chronic hypoxia-induced pulmonary hypertension. *Pulmonary Circulation*. 8(3):1-11, 2018.
 8. Detweiler ND, Vigil KG, **Resta TC**, Walker BR, Jernigan NL. Role of acid sensing ion channels in hypoxia- and hypercapnia-induced ventilatory responses. *PLoS One*. 13(2): e0192724, 2018.
 9. Weise-Cross L, Sands MA, Sheak JR, Broughton BRS, Snow JB, Gonzalez Bosc LV, Jernigan NL, Walker BR, **Resta TC**. Actin polymerization contributes to enhanced pulmonary vasoconstrictor reactivity following chronic hypoxia. *Am J Physiol*. 314:H1011-H1021, 2018. (**Associated Editorial:** Aaronson PI. Actin polymerization contributes to ROS- and Rho-dependent Ca^{2+} sensitization in pulmonary arteries from chronic hypoxic rats. *Am J Physiol*. 515(2):H314-H317, 2018).
 10. Zhang B, Naik JS, Jernigan NL, Walker BR, **Resta TC**. Reduced membrane cholesterol following chronic hypoxia limits Orail-mediated pulmonary endothelial Ca^{2+} entry. *Am J Physiol*. 314(2):H359-H369, 2018.
 11. Herbert, LM, **Resta TC**, Jernigan NL. RhoA increases ASIC1 plasma membrane localization and calcium influx in pulmonary arterial smooth muscle cells following chronic hypoxia. *Am J Physiol*. 314(2):C166-C176, 2018.
 12. Sheak, JR, deKay RJ, Walker BR, Jernigan, NL, **Resta TC**. Enhanced NO-dependent pulmonary vasodilation limits increased vasoconstrictor sensitivity in neonatal pulmonary hypertension. *Am J Physiol* 313:H828-H838, 2017.
 13. Jernigan NL, Naik JS, Weise Cross L, Detweiler ND, Herbert LM, Yellowhair TR, **Resta TC**. Contribution of reactive oxygen species to the pathogenesis of pulmonary arterial hypertension. *PLoS ONE* 12(6):e0180455, 2017.
 14. Zhang B, Naik JS, Jernigan NL, Walker BR, **Resta TC**. Reduced membrane cholesterol limits pulmonary endothelial Ca^{2+} entry following chronic hypoxia. *Am J Physiol* 312(6):H1176-H1184, 2017.
 15. Maston LD, Jones DT, Giermakowska W, Howard TA, Cannon JL, Wang W, Wei Y, Xuan W, **Resta TC**, Gonzalez Bosc LV. Central role of T helper 17 cells in chronic hypoxia-induced pulmonary hypertension. *Am J Physiol* 312(5):L609-L624, 2017.
 16. Herbert LM, Nitta CH, Yellowhair TR, Browning C, Gonzalez Bosc LV, **Resta TC**, Jernigan NL. PICK1/calcineurin suppress ASIC1-mediated Ca^{2+} entry in rat pulmonary arterial smooth muscle cells. *Am J Physiol*. 310(5):C390-400, 2016.
 17. Plomaritas DR, Herbert LM, Yellowhair TR, **Resta TC**, Gonzalez Bosc LV, Walker BR, Jernigan NL. Chronic hypoxia limits H_2O_2 -induced inhibition of ASIC1-dependent store-operated calcium entry in pulmonary arterial smooth muscle. *Am J Physiol* 307(5):L419-L430, 2014.
 18. Nitta CH, Osmond DA, Herbert LM, Beasley BF, **Resta TC**, Walker BR, Jernigan NL. Role of ASIC1 in the development of chronic hypoxia-induced pulmonary hypertension. *Am J Physiol* 306(1): H41-H52, 2014.
 19. Ramiro-Diaz JM, Nitta CH, Maston LD, Codianni S, Giermakowska W, **Resta TC**, Gonzalez Bosc LV. NFAT is required for spontaneous pulmonary hypertension in superoxide dismutase 1 knockout mice. *Am J Physiol* 304(9):L613-L625, 2013.

20. Norton CE, Broughton BR, Jernigan NL, Walker BR, **Resta TC**. Enhanced depolarization-induced pulmonary vasoconstriction following chronic hypoxia requires EGFR-dependent activation of NAD(P)H oxidase. *Antioxid Redox Signal* 18(14):1777-1788, 2013.
21. Jernigan NL, Herbert LM, Walker BR, **Resta TC**. Chronic hypoxia upregulates pulmonary arterial ASIC1: a novel mechanism of enhanced store-operated Ca^{2+} entry and receptor dependent vasoconstriction. *Am J Physiol* 302(6):C931-C940, 2012.
22. Bierer R, Nitta C, Friedman J, Codianni S, de Frutos S, Dominguez-Bautista JA, Howard TA, **Resta TC**, Gonzalez Bosc LV. NFATc3 is required for chronic hypoxia-induced pulmonary hypertension in adult and neonatal mice. *Am J Physiol* 301(6):L872-L880, 2011. **(Recommended by Faculty of 1000)**
23. Paffett ML, Naik JS, Riddle MA, Menicucci SD, Gonzales AJ, **Resta TC**, Walker BR. Altered membrane lipid domains limit pulmonary endothelial calcium entry following chronic hypoxia. *Am J Physiol* 301(4):H1331-H1340, 2011.
24. Snow JB, Gonzalez Bosc LV, Kanagy NL, Walker BR, **Resta TC**. Role for PKC β in enhanced endothelin-1-induced pulmonary vasoconstrictor reactivity following intermittent hypoxia. *Am J Physiol* 301(5):L745-L754, 2011.
25. Norton CE, Jernigan NL, Kanagy NL, Walker BR, **Resta TC**. Intermittent hypoxia augments pulmonary vascular smooth muscle reactivity to NO: regulation by reactive oxygen species. *J Appl Physiol* 111(4):980-988, 2011.
26. Paffett ML, Riddle MA, Kanagy NL, **Resta TC**, Walker BR. Altered PKC regulation of pulmonary endothelial store- and receptor-operated Ca^{2+} entry following chronic hypoxia. *J Pharmacol Exp Ther.* 334(3):753-760, 2010.
27. Broughton BR, Jernigan NL, Norton CE, Walker BR, **Resta TC**. Chronic hypoxia augments depolarization-induced Ca^{2+} -sensitization in pulmonary vascular smooth muscle through superoxide-dependent stimulation of RhoA. *Am J Physiol.* 298:232-242, 2010.
28. Snow, J.B., N.L. Kanagy, B.R. Walker, and **T.C. Resta**. Rat strain differences in pulmonary vascular smooth muscle Ca^{2+} entry following chronic hypoxia. *Microcirculation.* 16(7)603-614, 2009. **(Recommended by Faculty of 1000)**
29. Jernigan, N.L., M.L. Paffett, B.R. Walker, and **T.C. Resta**. ASIC1 contributes to pulmonary vascular smooth muscle store-operated Ca^{2+} entry. *Am J Physiol.* 297(2):L271-L285, 2009.
30. Haas, E., I. Bhattacharya, E. Brailoiu, M. Damjanovic, G.C. Brailoiu, L. Mueller-Guerre, N.A. Marjon, A. Gut, R. Minotti, M.R. Meyer, K. Amann, E. Ammann, A. Perez-Dominguez, M. Genoni, D.J. Clegg, N.J. Dun, **T.C. Resta**, E.R. Prossnitz, and M. Barton. Regulatory role of G-protein coupled estrogen receptor for vascular function and obesity. *Circ Res.* 104:288-291, 2009. **(Circ Res 2009 Best Manuscript Award)**
31. Jernigan, N.L., B.R. Walker, and **T.C. Resta**. Reactive oxygen species mediate RhoA/Rho kinase-induced Ca^{2+} sensitization in pulmonary vascular smooth muscle following chronic hypoxia. *Am J Physiol.* 295:L515-L529, 2008.
32. Gonzales, R.J., J.M. Bryant, J.S. Naik, **T.C. Resta**, and B.R. Walker. Gender differences in mesenteric vasoconstrictor reactivity following chronic hypoxia. *Microcirculation* 15(6):473-484, 2008.

33. Broughton, B.R., B.R. Walker, and **T.C. Resta**. Chronic hypoxia induces Rho kinase-dependent myogenic tone in small pulmonary arteries. *Am J Physiol.* 294(4):L787-L806, 2008. (**Recommended by Faculty of 1000**)
34. Snow, J.B., V. Kitzis, C.E. Norton, S.N. Torres, K.D. Johnson, N.L. Kanagy, B.R. Walker, and **T.C. Resta**. Differential effects of chronic hypoxia and intermittent hypocapnic and eucapnic hypoxia on pulmonary vasoreactivity. *J Appl Physiol.* 104:110-118, 2008.
35. Chicoine, L.G., M.L. Paffett, M. Metroupolus, **T.C. Resta**, L.D. Nelin, and B.R. Walker. Maturation changes in the regulation of pulmonary vascular tone by nitric oxide in neonatal rats. *Am J Physiol.* 293(5):L1261-L1270, 2007.
36. Paffett, M.L., J.S. Naik, **T.C. Resta**, and B.R. Walker. Reduced store-operated Ca²⁺ entry in pulmonary endothelial cells from chronically hypoxic rats. *Am J Physiol.* 293(5):L1135-L1142, 2007.
37. Jernigan, N.L., B.R.S. Broughton, B.R. Walker, and **T.C. Resta**. Impaired NO-dependent inhibition of store and receptor-operated calcium entry in pulmonary vascular smooth muscle following chronic hypoxia. *Am J Physiol.* 290:L517-L525, 2006.
38. Naik, J.S., S. Earley, **T.C. Resta**, and B.R. Walker. Pressure-induced smooth muscle cell depolarization in pulmonary arteries from control and chronically hypoxic rats does not cause myogenic vasoconstriction. *J Appl Physiol.* 98:1119-1124, 2005.
39. Earley, S., **T.C. Resta**, and B.R. Walker. Disruption of smooth muscle gap junctions attenuates myogenic vasoconstriction of rat mesenteric resistance arteries. *Am J Physiol.* 287:H2677-H2686, 2004.
40. Jernigan, N.L., B.R. Walker, and **T.C. Resta**. Chronic hypoxia augments protein kinase G-mediated Ca²⁺ desensitization in pulmonary vascular smooth muscle through inhibition of RhoA/Rho kinase signaling. *Am J Physiol.* 287:L1220-L1229, 2004.
41. Chicoine, L.G., E. Tzeng, R. Bryan, S. Saenz, M.L. Paffett, J. Jones, C.R. Lyons, **T.C. Resta**, L.D. Nelin, and B.R. Walker. Intra-tracheal adenoviral-mediated delivery of iNOS decreases pulmonary vasoconstrictor responses in rats. *J Appl Physiol.* 97(5):1814-1822, 2004.
42. Jernigan, N.L., B.R. Walker, and **T.C. Resta**. Endothelium-derived reactive oxygen species and endothelin-1 attenuate NO-dependent pulmonary vasodilation following chronic hypoxia. *Am J Physiol.* 287:L801-808, 2004.
43. Mukundan H., N.L. Kanagy, and **T.C. Resta**. 17- β estradiol attenuates hypoxic induction of HIF-1 α and erythropoietin in Hep3B cells. *J Cardiovasc Pharmacol.* 44(1):93-100, 2004.
44. Jernigan, N.L., **T.C. Resta**, and B.R. Walker. Contribution of oxygen radicals to altered NO-dependent pulmonary vasodilation in acute and chronic hypoxia. *Am J Physiol.* 286:L947-L955, 2004.
45. Mukundan H., **T.C. Resta**, and N.L. Kanagy. 17- β estradiol independently regulates erythropoietin synthesis and NOS activity during hypoxia. *J Cardiovasc Pharmacol.* 43(2):312-317, 2004.
46. Jernigan, N.L., B.R. Walker, and **T.C. Resta**. Pulmonary PKG-1 is upregulated following chronic hypoxia. *Am J Physiol.* 285:L634-L642, 2003.

47. **Resta, T.C.**, B.R. Walker, M.R. Eichinger, and M.P. Doyle. Rate of NO scavenging alters effects of recombinant hemoglobin solutions on pulmonary vasoreactivity. *J Appl Physiol.* 93:1327-1336, 2002.
48. Mukundan, H., **T.C. Resta**, and N.L. Kanagy. 17 β -estradiol decreases hypoxic induction of erythropoietin gene expression. *Am J Physiol.* 283:R496-R504, 2002.
49. Earley, S., and **T.C. Resta**. Estradiol attenuates hypoxia-induced pulmonary endothelin-1 gene expression. *Am J Physiol.* 283:L86-L93, 2002.
50. Jernigan, N.L., and **T.C. Resta**. Chronic hypoxia attenuates cGMP-dependent pulmonary vasodilation. *Am J Physiol.* 282:L1366-L1375, 2002.
51. **Resta, T.C.**, N.L. Kanagy, and B.R. Walker. Estradiol-induced attenuation of pulmonary hypertension is not associated with altered eNOS expression. *Am J Physiol.* 280:L88-L97, 2001.
52. Walker, B.R., **T.C. Resta**, and L.D. Nelin. Nitric oxide-dependent pulmonary vasodilation in polycythemic rats. *Am J Physiol.* 279:H2382-H2389, 2000.
53. **Resta, T.C.**, and B.R. Walker. Enhanced renal vasoconstrictor responsiveness to vasopressin following renal denervation. *J Cardiovasc Pharmacol.* 33(5):711-717, 1999.
54. **Resta, T.C.**, L.G. Chicoine, J.L. Omdahl, and B.R. Walker. Maintained upregulation of pulmonary eNOS gene and protein expression during recovery from chronic hypoxia. *Am J Physiol.* 276 (45):H699-H708, 1999.
55. **Resta, T.C.**, T.L. O'Donoghue, L.G. Chicoine, S. Earley, and B.R. Walker. Unaltered vasoconstrictor responsiveness following iNOS inhibition in lungs from chronically hypoxic rats. *Am J Physiol.* 276 (20):L122-L130, 1999.
56. **Resta, T.C.**, T.C. Sanders, M.R. Eichinger, M.R. Crowley, and B.R. Walker. Segmental vasodilatory effectiveness of inhaled NO in lungs from chronically hypoxic rats. *Respir Physiol.* 114:161-173, 1998.
57. Caudill, T.K., **T.C. Resta**, N.L. Kanagy, and B.R. Walker. Role of endothelial carbon monoxide in attenuated vasoreactivity following chronic hypoxia. *Am J Physiol.* 275 (44): R1025-R1030, 1998.
58. Herrera, G.M., **T.C. Resta**, J.L. Candelaria, and B.R. Walker. Maintained vasodilatory response to cromakalim following inhibition of nitric oxide synthesis. *J Cardiovasc Pharmacol.* 31: 921-929, 1998.
59. **Resta, T.C.**, R.J. Gonzales, W.G. Dail, T.C. Sanders, and B.R. Walker. Selective upregulation of arterial endothelial nitric oxide synthase in pulmonary hypertension. *Am J Physiol.* 272 (41): H806-H813, 1997.
60. **Resta, T.C.**, and B.R. Walker. Chronic hypoxia selectively augments endothelium-dependent pulmonary arterial vasodilation. *Am J Physiol.* 270 (39). H888-H896, 1996.
61. **Resta, T.C.**, J.M. Resta, and B.R. Walker. Role of endogenous opioids and serotonin in the hemodynamic response to hemorrhage during hypoxia. *Am J Physiol.* 269 (38): H1597-H1606, 1995.
62. Eichinger, M.R., **T.C. Resta**, D.S. Balderrama, G.M. Herrera, L.A. Richardson, J.M. Resta, and B.R. Walker. Glibenclamide does not reverse attenuated vasoreactivity due to acute or chronic hypoxia. *J Appl Physiol.* 79(4): 1173-1180, 1995.
63. **Resta, T.C.**, R.D. Russ, M.P. Doyle, J.M. Martinez, and B.R. Walker.

Cardiovascular responses to hemorrhage during acute and chronic hypoxia. *Am J Physiol.* 267 (36): R619-R627, 1994.

64. **Resta, T.C.**, and B.R. Walker. Orally administered L-arginine does not alter right ventricular hypertrophy in chronically hypoxic rats. *Am J Physiol.* 266 (35): R559-R563, 1994.
65. Russ, R.D., **T.C. Resta**, and B.R. Walker. Pulmonary vasodilatory response to neurohypophyseal peptides in the rat. *J Appl Physiol.* 73: 473-478, 1992.

INVITED EDITORIALS, CHAPTERS AND REVIEWS:

- Weise-Cross L, **Resta TC**, Jernigan NL. Redox regulation of ion channels and receptors in pulmonary hypertension. *Antioxid Redox Signal.* 31(12):898-915, 2019.
- Zhang B, Paffett ML, Naik JR, Jernigan NL, Walker BR, **Resta TC**. Cholesterol regulation of pulmonary endothelial calcium homeostasis. *Curr Top Membr.* 82:53-91, 2018.
- Jernigan NL, **Resta TC**, Gonzalez Bosc LV. Altered redox balance in the development of chronic hypoxia-induced pulmonary hypertension. *Adv Exp Med Biol.* 967:83-103, 2017.
- Jernigan NL and **Resta TC**. Calcium homeostasis and sensitization in pulmonary arterial smooth muscle. *Microcirculation.* 21(3):259-271, 2014.
- **Resta TC**, Broughton BR, Jernigan NL. Reactive oxygen species and RhoA signaling in vascular smooth muscle: role in chronic hypoxia-induced pulmonary hypertension. *Adv Exp Med Biol.* 661:355-373, 2010.
- Gonzalez Bosc LV, **Resta T**, Walker B, Kanagy NL. Mechanisms of intermittent hypoxia-induced hypertension. *J Cell Mol Med.* 14(1-2):3-17, 2010.
- Jernigan NL, Walker BR, **Resta TC**. Pulmonary endothelium and vasomotor control. In: *The Pulmonary Endothelium*. New York: Wiley, Inc., pp. 185-202, 2009.
- **Resta TC**. Hypoxic regulation of nitric oxide signaling in vascular smooth muscle. *Am J Physiol.* 285: L293-L295, 2003.

CONTRIBUTED ABSTRACTS AND/OR ORAL PRESENTATIONS AT PROFESSIONAL MEETINGS (PAST 5 YEARS):

1. Ahmadian R, Norton CE, Jernigan NL, Paffett ML, Naik JS, Walker BR, **Resta TC**. Altered lipid domains in pulmonary arterial smooth muscle facilitate enhanced depolarization-induced vasoconstriction following chronic hypoxia. *FASEB J.* In press.
2. Yan S, Walker BR, Jernigan NL, **Resta TC**. Contribution of mitochondrial reactive oxygen species to chronic hypoxia-induced pulmonary hypertension. *FASEB J.* In press.
3. Ahmadian, R, Sheak JR, Weise-Cross L, Jernigan NL, Arterburn JB, Prossnitz ER, Snow JB, **Resta TC**. GPER contributes to the development of pulmonary hypertension in female rats. *FASEB J.* In press.
4. Morales-Loredo JH, Jones DT, **Resta TC**, Kanagy NL, Gonzalez Bosc LV. Endothelin as a Persistent Biomarker of Hypoxia. *Hypertension* 74:AP194, 2019.

5. Yan S, Sheak JR, Jernigan NL, Walker BR, **Resta TC**. Mitochondria-derived reactive oxygen species mediate enhanced basal pulmonary arterial tone pulmonary following chronic hypoxia. International Society of Oxygen Transport to Tissue (ISOTT), Albuquerque, NM, 2019.
6. Yan S, Sheak JR, Jernigan NL, Walker BR, **Resta TC**. Contribution of mitochondria-derived reactive oxygen species to augmented pulmonary vasoconstriction following chronic hypoxia. *FASEB J.* 33, 1_supplement: 827.9, 2019.
7. Garcia SM, Herbert LM, Naik JS, **Resta TC**, Jernigan NL. Stimulation of muscarinic receptors activate acid sensing ion channel 1 in isolated mesenteric artery endothelial tubes. *FASEB J.* 33, 1_supplement: 845.9, 2019.
8. Weise Cross L, Vigil MA, Jernigan NL, **Resta TC**. NADPH oxidase and reactive oxygen species mediate pulmonary arterial smooth muscle cell phenotypic modulation following chronic hypoxia. *FASEB J.* 32, 1_supplement: 628.3, 2018.
9. Yan S, Sheak JR, Jernigan NL, Walker BR, **Resta TC**. Developmental differences in the contribution of PKC β signaling to chronic hypoxia-induced pulmonary arterial tone. *FASEB J.* 32, 1_supplement: 892.1, 2018.
10. Wolfel LC, Detweiler ND, Weise Cross L, Hathaway HJ, Jernigan NL, Prossnitz ER, **Resta TC**, Snow JB. Role of G protein-coupled estrogen receptors in pulmonary hypertension. *FASEB J.* 32, 1_supplement: 892.4, 2018.
11. Detweiler ND, Vigil KG, Yan S, Herbert LM, Bennett MC, **Resta TC**, Walker BR, Jernigan NL. Acid-sensing ion channels (ASICs) 2 and 3 buffer pulmonary vasoreactivity and ASIC2 protects against the development of chronic hypoxia-induced pulmonary hypertension. *FASEB J.* 32, 1_supplement: 628.3, 2018.
12. Garcia S, Naik JS, **Resta TC**, Jernigan NL. Acid sensing ion channel 1 contributes to endothelium-derived hyperpolarizing factor induced vasodilation in small mesenteric arteries. *FASEB J.* 32, 1_supplement: 902.9, 2018.
13. Sheak JR, deKay RJ, Jernigan NL, Walker, BR, **Resta TC**. Enhanced endothelium-dependent pulmonary vasodilation and eNOS expression limit increased vasoconstrictor sensitivity in neonatal chronic hypoxia. *Am J Respir Crit Care Med.* 195:A2253, 2017.
14. Zhang B, Naik JS, Jernigan NL, Walker BR, **Resta TC**. Reduced membrane cholesterol following chronic hypoxia limits Orai1-mediated pulmonary endothelial Ca²⁺ entry. *FASEB J.* 31:1073.2, 2017.
15. Maston LD, Jones DT, Giermakowska W, **Resta TC**, Gonzalez Bosc L. Interleukin-6 trans-signaling contributes to chronic hypoxia-induced pulmonary hypertension. *FASEB J.* 31:1016.20, 2017.
16. Sheak JR, Maston LD, Giermakowska W, Jones D, **Resta TC**, Gonzalez Bosc L. Smooth muscle NFATc3 contributes to chronic hypoxia-induced pulmonary hypertension. *FASEB J.* 31:1073.6, 2017.
17. Garcia SM, Herbert LM, Naik JS, **Resta TC**, Jernigan NL. Acid sensing ion channel 1 contributes to Ca²⁺ influx in endothelial tubes from small mesenteric resistance arteries. *FASEB J.* 31:689.11, 2017.
18. Weise Cross L, Sands MA, Sheak JR, Snow JB, Gonzalez Bosc LV, Jernigan NL, Walker BR, **Resta TC**. Actin polymerization contributes to augmented basal pulmonary arterial tone and endothelin-1-induced vasoconstriction following

- chronic hypoxia. *FASEB J.* 31:1073.5, 2017.
19. Detweiler ND, Vigil KG, Yan S, **Resta TC**, Walker BR, Jernigan NL. Contribution of acid sensing ion channels to hypoxia- and hypercapnia-induced ventilatory drive in conscious unrestrained mice. *FASEB J.* 31:1072.8, 2017.
 20. Sheak JR, Jernigan NL, Walker BR, **Resta TC**. PKC β Signals Through Mitochondrial Reactive Oxygen Species Production in Pulmonary Arterial Smooth Muscle Cells of Neonatal Rats. *FASEB J.* 31:1073.7, 2017.
 21. Maston LD, Jones DT, Cannon JL, Wang W., Wei Y, Xuan W, **Resta TC**, Gonzalez Bosc LV. T helper 17 cells contribute to chronic hypoxia-induced pulmonary hypertension. *Am J Respir Crit Care Med* 193, A3053, 2016.
 22. Sheak JR, Jernigan NL, Walker BR, **Resta TC**. Chronic hypoxia elevates basal tone in neonatal pulmonary hypertension through PKC β and reactive oxygen species signaling. *FASEB J.* 30: 774.16, 2016.
 23. Yellowhair TR, Herbert LM, **Resta TC**, Jernigan NL. Acid sensing ion channel 1 contributes to hypoxia-induced proliferation and hypertrophy in mouse pulmonary arterial smooth muscle cells. *FASEB J.* 30:775.1, 2016.
 24. Zhang B, Naik J, Jernigan N, **Resta T**, and Walker B. Reduced membrane cholesterol following chronic hypoxia limits depolarization-induced Ca $^{2+}$ entry in pulmonary arterial endothelial cells. *FASEB J.* 30:774.20, 2016.
 25. Garcia S, Herbert L, **Resta TC**, Jernigan NL. Acid sensing ion channel 1 contributes to endothelium-dependent vasodilation in mesenteric arteries. *FASEB J.* 30:1281.7, 2016.
 26. Sheak JR, Jernigan NL, Walker BR, Resta TC. Differential effects of chronic hypoxia on basal and agonist-induced NO-dependent pulmonary vasodilation in neonatal rats. *FASEB J.* 29: 662.12, 2015.
 27. Zhang B, Riddle MA, Naik JS, **Resta TC**, Walker BR. Cholesterol regulates both store- and agonist-induced Ca $^{2+}$ entry in pulmonary arterial endothelium. *FASEB J.* 28:1089.9, 2014.
 28. Plomaritas DR, Herbert LM, **Resta TC**, Walker BR, Jernigan NL. H $_2$ O $_2$ decreases ASIC1 plasma membrane localization in rat pulmonary arterial smooth muscle cells *FASEB J.* 28:1175.3, 2014.
 29. Sheak JR, Sands M, Snow JB, Gonzalez Bosc LV, Jernigan NL, Walker BR, **Resta TC**. Actin polymerization contributes to enhanced pulmonary arterial vasoconstrictor reactivity following chronic hypoxia. *FASEB J.* 28:1089.15, 2014.
 30. Maston LD, Reinhart KM, Giermakowska W, Nitta CH, Herbert LM, Jernigan NL, Cannon JL, **Resta TC**, González Bosc LV. Chronic hypoxia increases pro-inflammatory T $_H$ 17 cells via NFATc3-induced interleukin 6 production in the lung. *FASEB J.* 28:1175.5, 2014.
 31. Maston LD, Cannon JL, **Resta TC**, González Bosc LV. CD4 $^+$ T cells contribute to chronic hypoxia-induced pulmonary hypertension. *FASEB J.* 28:1190.5, 2014.
 32. Snow JB, Norton CE, Sands M, Jernigan NL, Gonzalez Bosc LV, Walker BR, **Resta TC**. Role of mitochondrial K $_{ATP}$ channels in PKC β -dependent constriction of small pulmonary arteries. *FASEB J.* 28:1090.10, 2014.
 33. Norton CE, Walker BR, **Resta TC**. Enhanced endothelin-1- and depolarization-induced pulmonary vasoconstriction following chronic hypoxia require Src family

kinases. *FASEB J.* 28:1089.12, 2014.

SUBMITTED GRANT AND CONTRACT FUNDING:**AS PRINCIPAL INVESTIGATOR:**

- NIH/NHLBI T32 HL007736, “Minority Institutional Research Training Program (T32).” T.C. Resta, PI, Steering Committee Chair, Mentor; Current budget period: \$2,029,222 direct costs; \$2,160,804 total costs; Project period: 1/1/2021-12/31/2026.

AS CO-INVESTIGATOR:

- NIH/NHLBI R01, “Collagen V-Reactive T_H17 Cells in Chronic Hypoxia-Induced Pulmonary Hypertension.” L.V. Gonzalez Bosc, PI; T.C. Resta, Co-I. \$1,250,000 direct costs, \$1,900,000 total costs; Project period: 4/1/2020-3/31/2025.

AS MENTOR/SPONSOR:

- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, F30, "Cholesterol Regulation of EGFR-dependent Vasoconstriction in Chronic Hypoxia-induced Pulmonary Hypertension." R. Ahmadian, PI; T.C. Resta, Sponsor; \$204,150 direct/total costs, 10/1/2020-9/30/2024.
- NIH/NIGMS T32 GM135747, “Initiative to Maximize Student Diversity at the University of New Mexico Health Sciences Center.” N.L. Kanagy, PI; T.C. Resta, Internal Advisory Committee Member, Mentor. \$3,673,385 direct costs, \$3,726,665 total costs; Project period: 1/1/2021-12/31/2026.
- NIH/NCATS UNM Clinical and Translational Science Center, UL1 TR001449. R. Larson, PI; T.C. Resta, KL2 Scholar Mentor; \$21,000,000 total costs; Project period: 4/1/2021-3/31/2026.

CURRENT GRANT AND CONTRACT FUNDING:**AS PRINCIPAL INVESTIGATOR:**

- NIH/NHLBI R01 HL132883, “Vascular Smooth Muscle Signaling in Intermittent Hypoxia-Induced Pulmonary Hypertension.” \$1,000,000 direct costs, \$1,515,000 total costs, 8/15/2016-6/30/2020.
- NIH/NHLBI T32 HL007736, “Minority Institutional Research Training Program (T32).” T.C. Resta, PI, Steering Committee Chair, Mentor; Current budget period: \$1,671,109 direct costs; \$1,789,609 total costs, Current budget: 5/1/2016-4/30/2021; Project period: 7/1/1993-4/30/2021.

AS CO-INVESTIGATOR:

- NIH/NHLBI R01 HL111084, “Vascular Smooth Muscle Function in Pulmonary Hypertension.” N.L. Jernigan, PI, T.C. Resta; Co-I \$1,000,000 direct costs, \$1,515,000 total costs, 5/1/2019-4/30/2023.
- DOD/Office of Navy Research N00014-17-1-2667, “Biomarkers of Hypoxia Exposure.” L. Gonzalez Bosc, PI, T.C. Resta, Co-I; \$455,413 direct costs; \$608,449 total costs. Project period: 9/1/17-8/31/20.

AS MENTOR/SPONSOR:

- NIH Idea Networks of Biomedical Research Excellence (INBRE) Grant P20 GM103451, “Role of HIF1 in GPER Signaling in the Pulmonary Circulation.”

- J.B. Snow, PI; T.C. Resta, Mentor; \$50,000 direct costs, 6/1/2019-5/30/2021.
- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, F31 HL145836, "The Role of Acid Sensing Ion Channel 1 in the Systemic Vasculature." S. Garcia, PI; T.C. Resta, Co-Sponsor; \$56,954 direct/total costs, 1/1/2019-7/31/2021.
- NIH/NIGMS Academic Science Education and Research Training (ASERT), K12 GM088021. A. Wandinger-Ness, PI; T.C. Resta, Mentor; 2009-present.
- NIH Post-Baccalaureate Research and Education Program (PREP), Richard Cripps, PI; T.C. Resta, Mentor; 2005-present.

PAST GRANT AND CONTRACT FUNDING:

AS PRINCIPAL INVESTIGATOR:

- University of New Mexico Health Sciences Center, Signature Program in Cardiovascular and Metabolic Disease, "Metalloproteinase signaling in hypoxic pulmonary hypertension." \$10,100 direct/total costs, 10/1/18-6/30/19.
- American Heart Association Grant-In-Aid 16GRNT27700010, "Vascular Redox Signaling in Intermittent Hypoxia-Induced Pulmonary Hypertension." \$127,274 direct costs, \$140,000 total costs, 1/1/2016-12/31/2017 (relinquished in year 1 due to overlap with R01 HL132883)
- American Heart Association Grant-In-Aid 13GRNT14510041, "Pulmonary Vasoreactivity Following Intermittent Hypoxia." \$127,274 direct costs, \$140,000 total costs, 1/1/2013-12/31/2014.
- NIH R01 HL88192, "Pulmonary Vasoreactivity Following Chronic Hypoxia." \$1,250,000 direct costs, \$1,875,000 total costs, 7/8/2008-5/30/2013.
- NIH R01 HL77876, "NO-Mediated Pulmonary Vasodilation after Chronic Hypoxia." \$900,000 direct costs, \$1,350,000 total costs, 7/1/2004-6/30/2008.
- American Heart Association Grant-In-Aid 0755775Z, "RhoA/Rho Kinase-Induced Pulmonary Vasoconstriction Following Chronic Hypoxia." \$180,000 direct costs, \$198,000 total costs, 7/1/2007-6/30/2010 (relinquished after year 1 due to overlap with R01 HL88192).
- NIH Idea Networks of Biomedical Research Excellence (INBRE) Grant P20 RR16480, "NO-Mediated Pulmonary Vasodilation After Chronic Hypoxia." T.C. Resta, Subproject Principal Investigator; \$375,000 direct costs, \$562,500 total costs, 7/1/2004-6/30/2009. Funded, but declined due to overlap with R01 HL77876.
- NIH Biomedical Research Infrastructure Network (BRIN) Grant P20 RR16480. "Estradiol-Mediated Inhibition of Pulmonary Hypertension." T.C. Resta, Subproject Principal Investigator; \$229,624 direct costs, \$289,624 total costs, 9/1/2001-6/30/2004.
- American Heart Association Scientist Development Grant 0030021N, "Role of Nitric Oxide in Estrogen-Induced Attenuation of Chronic Hypoxic Pulmonary Hypertension." \$236,364 direct costs, \$260,000 total costs, 1/1/2000-12/31/2003 .
- Parker B. Francis Fellowship, "Mechanisms of Estrogen-Induced Attenuation of Hypoxic Pulmonary Hypertension." \$120,000 direct/total costs, 7/1/2000-6/30/2003.

- Baxter Healthcare Corporation, Hemoglobin Therapeutics Group, “Effects of Recombinant Hemoglobins on Pulmonary Vascular Reactivity and Permeability.” \$15,094 direct costs, \$18,113 total costs, 6/1/1999-5/31/2001.
- Research Allocation Committee (RAC) Award, University of New Mexico School of Medicine, “Heme Oxygenase Regulation of Pulmonary Vascular Function.” \$12,197 direct/total costs, 6/30/1999-7/1/2000.
- NIH/NHLBI National Research Service Award Individual Postdoctoral Fellowship, Grant F32 HL09660, "Vasodilatory Mechanisms During Pulmonary Hypertension." \$83,110 direct/total costs, 7/1/1997-12/31/1999.
- University of New Mexico Asthma Research Center/American Lung Association Research Award, “iNOS Regulation of Pulmonary Vasoreactivity in a Rat Asthma Model.” \$5,000 direct/total costs, 1999.
- American Heart Association Postdoctoral Fellowship, New Mexico Affiliate, "Vasodilatory Mechanisms During Pulmonary Hypertension." \$22,000 direct/total costs, 7/1/1996-6/30/1997.

AS CO-INVESTIGATOR:

- NIH/NHLBI T32 HL007736, “Minority Institutional Research Training Program (T32).” B.R. Walker, PI; T.C. Resta, Associate Director, Steering Committee member, Mentor: \$1,934,165 direct costs; \$1,350,000 total costs, Current budget: Project period: 8/1/2010-7/31/2015.
- NIH R01 HL88151, “NFATc3 in Chronic Hypoxic Pulmonary Hypertension.” L. Gonzalez Bosc, Principal Investigator; \$1,250,000 direct costs, \$1,875,000 total costs, 12/1/2007-2/28/2013.
- Clinical and Translational Science Center Pilot Project, University of New Mexico Health Sciences Center, “NFATc3 in Pulmonary Hypertension.” L. Gonzalez Bosc, Principal Investigator ; \$30,000 direct/total costs, 9/1/12-8/31/13.
- NIH R01 HL82799, “Endothelin Vasoconstriction in a Rat Model of Sleep Apnea-Induced Hypertension.” N.L. Kanagy, Principal Investigator; \$1,000,000 direct costs, \$1,500,000 total costs, 7/1/2007-6/30/2013.
- NIH R01 HL58124, “Pulmonary Endothelial Function During Chronic Hypoxia.” B.R. Walker, Principal Investigator; \$900,000 direct costs, \$1,350,000 total costs, 8/1/2005-7/31/2009.
- NIH R01 ES09804, "Effects of Dioxin on Coronary Angiogenesis." M.K. Walker, Principal Investigator; \$375,611 direct costs, \$543,451 total costs, 4/1/2000-3/31/2003.

AS MENTOR/SPONSOR:

- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, 1 F31 HL131334, "Role of PKC β and Oxidant Signaling in Neonatal Pulmonary Hypertension." J.R. Sheak, PI; T.C. Resta, Sponsor; \$46,416 direct/total costs, 2/1/2016-7/31/2017.
- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, 1 F30 HL123109, "The Role of Adaptive Immunity in Chronic Hypoxia-Induced Pulmonary Hypertension." L.D. Maston, PI; T.C. Resta,

Sponsor; \$89,270 direct/total costs, 3/1/2015-10/31/2017.

- American Heart Association Predoctoral Fellowship 13PRE14580015, “NADPH Oxidase-Mediated Pulmonary Vasoconstriction Following Chronic Hypoxia.” C.E. Norton, PI; T.C. Resta, Sponsor; \$50,000 direct/total costs, 1/1/2013-12/31/2014.
- NIH K01 HL92598, “Role of Acid-Sensing Ion Channels in Pulmonary Vascular Smooth Muscle Store-Operated Calcium Entry.” N.L. Jernigan, Principal Investigator; T.C. Resta, Advisory Committee Chair; \$699,395 direct costs, \$755,085 total costs, 5/1/2008-4/30/2013.
- American Heart Association Postdoctoral Fellowship 12POST8690008, “PDK-1 and Endothelin-1 in Intermittent Hypoxia-induced Hypertension.” J. Osmond, PI; T.C. Resta, Co-Sponsor; \$84,000 direct/total costs, 1/1/2012-12/31/2013.
- American Heart Association Postdoctoral Fellowship 1POST5260026, “Pulmonary vasoconstrictor reactivity following intermittent hypoxia.” J.B. Snow, PI; T.C. Resta, Sponsor; \$82,000 direct/total costs, 1/1/2011-12/31/2012.
- NIH P30 HL101351, “Building Core Programs in Cardiovascular and Metabolic Disease.” P.G. McGuire, PI; T.C. Resta, Core Center Member and Mentoring Committee Chair; \$889,644 direct costs, \$1,096,176 total costs, 9/30/2009-9/29/2011.
- American Heart Association Predoctoral Fellowship 0715682Z, “Mechanisms of PKC-mediated inhibition of store-operated calcium entry following chronic hypoxia.” J.B. Snow, PI; T.C. Resta, Sponsor; \$48,000 direct costs, 7/1/2007-6/30/2009.
- Parker B. Francis Fellowship, “Role of acid sensing ion channels in the regulation of pulmonary vascular smooth muscle intracellular Ca^{2+} following chronic hypoxia-induced pulmonary hypertension.” N.L. Jernigan, PI; T.C. Resta, Sponsor; \$150,000 direct/total costs, 7/1/08-6/30/11. Funded, but declined due to overlap with NIH Grant K01 HL92598.
- American Heart Association Postdoctoral Fellowship 0625647Z, “Contribution of RhoA/Rho Kinase to Elevated Basal Pulmonary Arterial Tone Following Chronic Hypoxia.” B.R.S. Broughton, PI; T.C. Resta, Sponsor; \$137,700 direct costs, 7/1/06-6/30/09.
- Pulmonary Hypertension Association Postdoctoral Fellowship, “Contribution of RhoA/Rho Kinase to Elevated Basal Pulmonary Arterial Tone Following Chronic Hypoxia.” B.R.S. Broughton, PI; T.C. Resta, Sponsor, \$68,000 direct costs, 7/1/06-6/30/08. Funded, but declined due to overlap with AHA Postdoctoral Fellowship 0625647Z.
- MARC Training Grant, Mary Anne Nelson, PI; T.C. Resta, Mentor; 2004–2007.
- American Heart Association Predoctoral Fellowship, “Estrogen Attenuates Hypoxic Induction of Erythropoietin Gene Expression.” H. Mukundan, PI; T.C. Resta, Co-Sponsor, \$36,000 direct costs, 7/1/2001-6/30/2003.

TEACHING/EDUCATION:**JUNIOR FACULTY MENTORING:**

- Jessica Snow, Ph.D., Assistant Professor, New Mexico Highlands University, Dept. of Biology, 2014-present (AHA and NIH funded).
- Nikki Jernigan, Ph.D., Associate Professor, University of New Mexico Health Sciences Center, Dept. of Cell Biology and Physiology, 2008-2015 (NIH R01 funded).
- Laura Gonzalez Bosc, Ph.D., Professor, University of New Mexico Health Sciences Center, Dept. of Cell Biology and Physiology, 2004-2010 (NIH R01 funded).

POST-DOCTORAL FELLOW MENTORING:

- Laura Weise Cross, Ph.D., 2015-2019. Current position: Assistant Professor (tenure-track), Millersville University, PA.
- Jessica Snow, Ph.D., 2009-2014. Current position: Assistant Professor (tenure-track), New Mexico Highlands University, Dept. of Biology, 2014-present. (AHA and NIH funded).
- Michelle Sands, Ph.D., 2011-2012. Current position: Technical Officer, National University of Ireland, Maynooth.
- Nikki Jernigan, Ph.D., mentored 2006-2008. Current position: Associate Professor (tenured), University of New Mexico Health Sciences Center, Dept. of Cell Biology and Physiology (NIH R01 funded).
- Bradley R.S. Broughton, Ph.D., mentored 2005-2007. Current position: Senior Lecturer and Co-Lab Head (tenure-track), Dept. of Pharmacology, Monash University, Australia (NHMRC funded, Australian R01 equivalent).
- Vanessa Kitzis, M.D., mentored 2003-2005. Current position: Pulmonologist, St. Vincent Hospital, Santa Fe, NM.
- Harshini Mukundan, Ph.D., mentored 2003. Current position: Senior Scientist and Team Leader, Los Alamos National Laboratory (NIH funded).

PH.D. STUDENT MENTORING:

- Rosstin Ahmadian (M.D./Ph.D. candidate), 2018-present.
- Simin Yan (Ph.D. candidate), 2017-present.
- Joshua Sheak (M.D./Ph.D. candidate), 2012-2017. Dissertation title: Role of PKC β and Oxidant Signaling in Neonatal Pulmonary Hypertension. Current position: Pediatric Resident, Clinician-Scientist Training Program, Cincinnati Children's Hospital, OH.
- Levi Maston (M.D./Ph.D. candidate), Co-mentor with Dr. Laura Gonzalez Bosc, 2011-2017. Dissertation title: The Role of Adaptive Immunity in Chronic Hypoxia-Induced Pulmonary Hypertension.
- Bojun Zhang (Ph.D. candidate); Co-mentor with Dr. Benjimen Walker, 2012-2017. Dissertation title: Cholesterol Regulation of Pulmonary Endothelial Calcium Entry Following Chronic Hypoxia. Current position: Postdoctoral Fellow, Baylor College of Medicine (mentors: Bob Bryan and David Durgan), 2018-present.

- Charles Norton (Ph.D. awarded 2015). Dissertation title: Mechanisms of Enhanced Pulmonary Vasoconstriction and Calcium Sensitization Following Chronic Hypoxia. Current position: Research Assistant Professor, University of Missouri, 2015-present.
- Jessica Snow (Ph.D. awarded 2009). Dissertation title: Pulmonary Vasoreactivity Following Intermittent Hypoxia. Current position: Assistant Professor, New Mexico Highlands University, Dept. of Biology, 2014-present.
- Nicole Marjon (M.D./Ph.D. awarded 2015; E.R. Prossnitz, Mentor; T.C. Resta, Co-mentor from 2008-2009). Current position: Clinical Fellow, University of California, San Francisco.
- Nikki Jernigan (Ph.D. awarded 2004). Dissertation title: Mechanisms of Altered Nitric Oxide-Dependent Pulmonary Vasodilation Following Chronic Hypoxia. Current position: Associate Professor (tenured), University of New Mexico Health Sciences Center, Dept. of Cell Biology and Physiology (NIH R01 funded).
- Harshini Mukundan (Ph.D. awarded 2003; Co-mentor with N.L. Kanagy). Dissertation title: 17 β -Estradiol Attenuation of Hypoxia-Induced Erythropoietin Expression. Current position: Senior Scientist and Team Leader, Los Alamos National Laboratory (NIH funded).

M.S. STUDENT MENTORING:

- Steven Menicucci (M.S. awarded 2011). Thesis title: Pulmonary Endothelial Calcium Entry Following Chronic Hypoxia.

POST-BACCALAUREATE STUDENT MENTORING:

- Lilliana Sanchez, NIH Post-Baccalaureate Research Education Program, 2007-2008.

PRE-BACCALAUREATE STUDENT MENTORING:

- Deanna Lucero (Dept. of Biochemistry and Molecular Biology, Undergraduate Honors Research Program, Biochem 499), 2018.
- Logan Wolfel (NIH INBRE Undergraduate Pipeline Network Summer Research Program), 2017.
- Maria Vigil (NIH INBRE Undergraduate Pipeline Network Summer Research Program), 2016.
- Raymond deKay (NIH INBRE Undergraduate Pipeline Network Summer Research Program), 2015.
- Courtney Nichols (NIH INBRE Undergraduate Pipeline Network Summer Research Program), 2010.
- Chuck Norton (Regents' Scholar), 2006-2010.
- Azadeh Fotouhie (independent undergraduate research), 2006.
- Kelli Good (independent undergraduate research), 2005-2006.
- Samantha Torres (NIH Minority Biomedical Research Support Program and NIH Minority Access to Research Careers Program), 2002-2006.
- Kimberly Johnson, (independent undergraduate research), 2004-2005.

- Deborah Peña-Marcelo (NIH Minority Biomedical Research Support Program), 2002.
- Jose Avita (Ronald E. McNair Scholar), 2001.
- Benjamin Silva (Center of Excellence Honors Research Program), 2000.
- Melissa Montañó (Center of Excellence Honors Research Program and NIH Minority Biomedical Research Support Program), 1999.

SELECTED MAJOR AWARDS RECEIVED BY GRADUATE AND POSTDOCTORAL MENTEES DURING TRAINING:

Rosstin Ahmadian

- UNM School of Medicine Klecotka Scholarship Fund, 2020.

Brad Broughton

- Microcirculatory Society August Krogh Young Investigator Travel Award, 8th World Congress for Microcirculation, Milwaukee, Wisconsin, 2007
- Microcirculatory Society August Krogh Young Investigator Travel Award, Microcirculatory Society 54th Annual Meeting, Washington, D.C., 2007
- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, Experimental Biology, San Francisco, CA (2006)
- American Heart Association Postdoctoral Fellowship #0625647Z, “Contribution of RhoA/Rho Kinase to Elevated Basal Pulmonary Arterial Tone Following Chronic Hypoxia.” \$137,700 direct costs, 7/1/06-6/30/09.
- Pulmonary Hypertension Association Postdoctoral Fellowship, “Contribution of RhoA/Rho Kinase to Elevated Basal Pulmonary Arterial Tone Following Chronic Hypoxia.” \$68,000 direct costs, 7/1/06-6/30/08. Funded, but declined due to overlap with AHA Postdoctoral Fellowship#0625647Z.

Nikki Jernigan

- NIH Grant # K01 HL92598, “Role of Acid-Sensing Ion Channels in Pulmonary Vascular Smooth Muscle Store-Operated Calcium Entry.” \$699,395 direct costs, \$755,085 total costs, 5/1/2008-4/30/2013.
- Parker B. Francis Fellowship, “Role of acid sensing ion channels in the regulation of pulmonary vascular smooth muscle intracellular Ca²⁺ following chronic hypoxia-induced pulmonary hypertension.” \$150,000 direct/total costs, 7/1/08-6/30/11. Funded, but declined due to overlap with NIH Grant # K01 HL92598.
- American Physiological Society Respiration Section, Research Recognition Award, San Diego, CA (2008).
- American Physiological Society Minority Travel Fellowship Awards (2001-2004).

Levi Maston

- American Physiological Society Respiration Section, Trainee Poster Award, Experimental Biology, San Diego, CA (2018).
- Evans Charitable Trust Scholarship for Biomedical Research, 2015.
- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, F30 HL123109, "The Role of Adaptive Immunity in Chronic

Hypoxia-Induced Pulmonary Hypertension." L.D. Maston, Principal Investigator; \$160,198 direct/total costs, 12/1/2014-11/30/2018.

- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, Experimental Biology, San Diego, CA, 2014.

Harshini Mukundan

- American Heart Association Predoctoral Fellowship, "Estrogen Attenuates Hypoxic Induction of Erythropoietin Gene Expression." \$36,000 direct costs, 7/1/2001-6/30/2003.
- Sievers International Award for outstanding presentation of a research poster, American Physiological Society, Gender and Hormones in Physiology Conference, Pittsburgh, PA (2001)

Charles Norton

- American Physiological Society Respiration Section, Research Recognition Award, San Diego, CA (2014). Awarded but declined to accept the following APS Professional Opportunity Award.
- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, Experimental Biology, San Diego, CA (2014).
- American Heart Association Predoctoral Fellowship 13PRE14580015, "NADPH Oxidase-Mediated Pulmonary Vasoconstriction Following Chronic Hypoxia." C.E. Norton, Principal Investigator; \$50,000 direct/total costs, 1/1/2013-12/31/2014.

Joshua Sheak

- American Thoracic Society, Minority Trainee Development Scholarship, Washington, D.C. (2017)
- American Physiological Society, K-12 Minority Outreach Fellowship Award, (2016-2017)
- American Physiological Society Respiration Section, Research Recognition Award, San Diego, CA (2016)
- NIH/NHLBI National Research Service Award Individual Predoctoral Fellowship, 1 F31 HL131334, "Role of PKC β and Oxidant Signaling in Neonatal Pulmonary Hypertension." J.R. Sheak, Principal Investigator; \$94,008 direct/total costs, 12/1/2015-11/30/2018
- American Physiological Society, Graduate Student Poster Prize, Experimental Biology, Boston, MA (2015)
- American Physiological Society Minority Travel Fellowship Award, Experimental Biology, Boston, MA (2015)
- American Physiological Society Minority Travel Fellowship Award, Experimental Biology, San Diego, CA (2014)
- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, Experimental Biology, San Diego, CA (2014).

Jessica Snow

- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt and Steven M. Horvath Professional Opportunity Award, Experimental Biology, Washington, D.C. (2011).
- American Heart Association Postdoctoral Fellowship #1POST5260026,

“Pulmonary vasoconstrictor reactivity following intermittent hypoxia.” \$82,000 direct/total costs, 1/1/2011-12/31/2012.

- American Heart Association Predoctoral Fellowship #0715682Z, “Mechanisms of PKC-mediated inhibition of store-operated calcium entry following chronic hypoxia.” \$48,000 direct costs, 7/1/2007-6/30/2009.
- Microcirculatory Society Benjamin Zweifach Graduate Student Travel Award, 8th World Congress for Microcirculation, Milwaukee, Wisconsin (2007)
- American Physiological Society Respiration Section, Research Recognition Award, Washington, D.C. (2007)
- Microcirculatory Society Benjamin Zweifach Graduate Student Travel Award, Microcirculatory Society 53rd Annual Meeting, San Francisco, CA (2006)

Laura Weise Cross

- American Physiological Society Physiology Education Community of Practice Fellowship (2018).
- American Physiological Society Minority Travel Fellowship Award (2018).
- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt and Steven M. Horvath Professional Opportunity Award, Experimental Biology, Chicago, IL. (2017).

Simin Yan

- American Physiological Society Respiration Section, Research Recognition Award, Orlando, FL (2019).
- American Physiological Society Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, Experimental Biology, San Diego, CA. (2018).

CLASSROOM, LABORATORY TEACHING, AND TUTORING:

POST-DOCTORAL:

- Faculty participant, Fellowship Application Writing Exercise with Mock Grant Review for NIH/NIGMS Academic Science Education and Research Training (ASERT) Fellows, University of New Mexico Health Sciences Center, 12-2018.

MEDICAL CURRICULUM:

- Lecturer, Phase I Medical Curriculum, Cardiovascular/Pulmonary/Renal Block, University of New Mexico Health Sciences Center, Topics in Cardiovascular and Pulmonary Physiology (6-29 contact hr/year; currently 29), 2001-present.
- Lecturer, Review for United States Medical Licensing Examination Step 1 in cardiovascular/pulmonary physiology for Phase I medical students, University of New Mexico Health Sciences Center (2 lecture hours), 2006.
- Lecturer, Phase II Medical Curriculum, University of New Mexico Health Sciences Center, Mechanisms of Endothelial Dysfunction in Atherosclerosis (1 lecture hour/year), 2001-2002.
- Tutor, Phase I Medical Curriculum, Renal/Endocrinology and Human Sexuality and Reproduction Block, University of New Mexico Health

Sciences Center, 2002.

- Lecturer, Phase I Medical Curriculum, Cardiovascular/Pulmonary Block, University of New Mexico Health Sciences Center, reviews/problem sets in pulmonary physiology (1 lecture hour/year), 1999-2001.
- Laboratory Instructor, Phase I Medical Curriculum, Cardiovascular/Pulmonary Block, University of New Mexico Health Sciences Center, Cardiac Electrophysiology (1 contact hour), 1995.
- Lecturer, Basic Science Enrichment Program for incoming first year medical students, University of New Mexico School of Medicine, lecturer on topics in pulmonary physiology (7 lecture hours/year), 1993-1997.
- Lecturer, National Board Review Course, Respiratory Physiology, University of New Mexico School of Medicine (1 lecture hour/year), 1993-1995.

GRADUATE CURRICULUM:

- Lecturer/Block Leader, Graduate Physiology (Biomed. Sci. 510), Topics in Cardiovascular and Pulmonary Physiology (~8-13 lecture hours/year), 1994-present.
- Lecturer, Fundamentals for Graduate Research (Biomed Sci 501), Research Opportunities in the Dept. of Cell Biology and Physiology (1 lecture hour), 2017-2019.
- Lecturer/Tutor/Block Leader, Advanced Topics in Cellular and Systems Physiology (Biomed. Sci. 657), University of New Mexico Health Sciences Center (~15 contact hours/year), 2005, 2007, 2011, 2013, 2017.
- Lecturer, Neuroscience Seminar Series (Biomed. Sci. 535), University of New Mexico Health Sciences Center (1 lecture hour), 2010.
- Lecturer, Cardiovascular Biology Journal Club/Seminar (Biomed. Sci. 659), University of New Mexico Health Sciences Center (1-2 lecture hours/year), 1992-2009.
- Laboratory Instructor, Graduate Physiology (Biomed. Sci. 510), University of New Mexico Health Sciences Center, Pulmonary Circulation Laboratory, Cardiovascular Reflex Laboratory (2-3 contact hours/year), 1995-2002.

UNDERGRADUATE:

- Lecturer, IMSD Training Program, General Laboratory Organization, Procedures and Etiquette (1 lecture hour), 2005.

CURRICULUM DEVELOPMENT OR EDUCATIONAL ADMINISTRATIVE POSITIONS:

HEALTH SCIENCES CENTER/SCHOOL OF MEDICINE:

- Senior Associate Dean – Research Education, University of New Mexico School of Medicine, Albuquerque, NM, 2020-present.
- Ex Officio Member, Biomedical Sciences Graduate Program (BSGP) Steering Committee, 2020-present.

- Ex Officio Member, UNM Comprehensive Cancer Center Advisory Committee for Education, 2020-present.
- Ex Officio Member, MD/PhD Program Steering Committee, 2020-present.
- Ex Officio Member, UNM Comprehensive Cancer Center Advisory Committee for Education, 2020-present.
- Director, Cardiovascular Research Training Program (predoctoral and postdoctoral); funded by NIH/NHLBI Minority Institutional Research Training Program in Cardiovascular Biology Grant # T32 HL07736, 8/1/16 - present.
- Associate Director, Cardiovascular Research Training Program (predoctoral and postdoctoral); funded by NIH/NHLBI Minority Institutional Research Training Program in Cardiovascular Biology Grant # T32 HL07736, 8/1/10 – 7/31/16.

MEDICAL CURRICULUM:

- Member, MD/PhD Steering Committee, MD/PhD Program, University of New Mexico Health Sciences Center, 2017-present.
- Member, Cardiovascular/Pulmonary/Renal Block Planning Committee, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2001- present.
- Director, Cardiovascular/Pulmonary/Renal Block, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2014-2017.
- Chair, Cardiovascular/Pulmonary/Renal Block Steering Committee, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2014-2017.
- Member, Phase I Block Chairs Committee, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2013-2017.
- Co-Director, Cardiovascular/Pulmonary/Renal Block, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2013-2014.
- Co-Chair, Cardiovascular/Pulmonary/Renal Block Steering Committee, Phase I Medical Curriculum, University of New Mexico Health Sciences Center, 2013- 2014.
- Member, Committee for Student Promotion and Evaluation (CSPE; medical curriculum), University of New Mexico, School of Medicine, 2012-2014.
- Assistant Block Chair, Cardiovascular/Pulmonary Block, Phase I Medical Curriculum, 2005-2008.

GRADUATE CURRICULUM:

- Member, MD/PhD Steering Committee, MD/PhD Program, University of New Mexico Health Sciences Center, 2017-present.
- Member, Biomedical Sciences Graduate Program Student Progress

Committee, University of New Mexico Health Sciences Center, 2013-2014.

- Member, Biomedical Sciences Graduate Program Steering Committee, University of New Mexico Health Sciences Center, 2007-2014.
- Member, Biomedical Sciences Graduate Program Admissions Committee, University of New Mexico Health Sciences Center, 2007-2013.
- Course Director, Advanced Topics in Cellular and Systems Physiology (Biomed. Sci. 657), University of New Mexico Health Sciences Center, 2011, 2013.
- Course Director, Cardiovascular Biology Journal Club/Seminar (Biomed. Sci. 659), University of New Mexico Health Sciences Center, Spring/Fall, 2011.
- Course Director, Graduate Physiology (Biomed. Sci. 510), University of New Mexico Health Sciences Center, 2001, 2005, 2009.
- Member, Ph.D. Qualifying Examination Committees, Biomedical Sciences Graduate Program, 2000-2001.

OTHER:

- Member, Departmental Education Committee, University of New Mexico Health Sciences Center, 2005-2007.
- Member, Departmental Committee on Policies for Peer-Review in Teaching Effectiveness, University of New Mexico Health Sciences Center, 2001- 2002.

OTHER TEACHING AND MENTORING ACTIVITIES:

FACULTY ADVISORY COMMITTEES:

- Chair, Steering Committee, NIH/NHLBI Minority Institutional Research Training Program in Cardiovascular Biology Grant # T32 HL07736, 7/31/16 - present.
- Biomedical Research Education Programs Faculty Working Group, UNM HSC, 2017-2019.
- Member, Advisory Committee for Phase I Medical Curriculum renewal – Curriculum Study Group, University of New Mexico School of Medicine, 2018.
- Member, Advisory Committee for Phase I Medical Curriculum renewal – Instructors Study Group, University of New Mexico School of Medicine, 2018.
- Member, Steering Committee, NIH/NHLBI Minority Institutional Research Training Program in Cardiovascular Biology Grant # T32 HL07736, 8/1/10 – 7/31/16.
- Chair, Advisory Committee for NIH Grant # K01 HL92598, “Role of Acid-Sensing Ion Channels in Pulmonary Vascular Smooth Muscle Store-Operated Calcium Entry.” N.L. Jernigan, Principal Investigator; 5/1/2008-4/30/2013.
- Chair, Mentoring Committee for NIH Grant # P30 HL101351, “Building Core Programs in Cardiovascular and Metabolic Disease.” P.G. McGuire,

Principal Investigator; 9/30/2009-8/31/2011.

DISSERTATION ADVISORY COMMITTEES:

COMMITTEE CHAIR:

- Chair, Doctoral Dissertation Committee, Rosstin Ahmadian, UNM Biomedical Sciences Graduate Program, 2018-present
- Chair, Doctoral Dissertation Committee, Simin Yan, UNM Biomedical Sciences Graduate Program, 2017-present.
- Chair, Doctoral Dissertation Committee, Bojun Zhang, UNM Biomedical Sciences Graduate Program, 2017.
- Chair, Doctoral Dissertation Committee, Joshua Sheak, UNM Biomedical Sciences Graduate Program, 2013 to 2017.
- Chair, Doctoral Dissertation Committee, Levi Maston, UNM Biomedical Sciences Graduate Program, 2012 to 2015.
- Chair, Doctoral Dissertation Committee, Charles Norton, UNM Biomedical Sciences Graduate Program, 2011 to 2015.
- Chair, M.S. Thesis Committee, Steven Menicucci, UNM Biomedical Sciences Graduate Program, 2010 to 2011.
- Chair, Doctoral Dissertation Committee, Jessica Snow, UNM Biomedical Sciences Graduate Program, 2005 to 2009.
- Chair, Doctoral Dissertation Committee, Nikki Jernigan, UNM Biomedical Sciences Graduate Program, 2002 to 2004.

COMMITTEE MEMBER:

- Member, Doctoral Dissertation Committee, Benjimen Lantz, UNM Biomedical Sciences Graduate Program, 2020-present.
- Member, Doctoral Dissertation Committee, Perenkita Mendiola, UNM Biomedical Sciences Graduate Program, 2017-present.
- Member, Doctoral Dissertation Committee, Tamara Young, UNM Biomedical Sciences Graduate Program, 2016-present.
- Member, Doctoral Dissertation Committee, Selina Garcia, UNM Biomedical Sciences Graduate Program, 2016-present.
- Member, Doctoral Dissertation Committee, Levi Maston, UNM Biomedical Sciences Graduate Program, 2015-2017.
- Member, Thesis Committee, Danielle Plomaritas, UNM Biomedical Sciences Graduate Program, 2013 to 2014.
- Member, Doctoral Dissertation Committee, Bojun Zhang, UNM Biomedical Sciences Graduate Program, 2012 to 2017.
- Member, Doctoral Dissertation Committee, Natalie Fredette, UNM Biomedical Sciences Graduate Program, 2012 to 2015.
- Member, Doctoral Dissertation Committee, Isamu Aiba, UNM Biomedical Sciences Graduate Program, 2010 to 2012.
- Member, Doctoral Dissertation Committee, Olan Jackson-Weaver, UNM Biomedical Sciences Graduate Program, 2008 to 2011.
- Member, Doctoral Dissertation Committee, Melissa Riddle, UNM

- Biomedical Sciences Graduate Program, 2007 to 2011.
- Member, Doctoral Dissertation Committee, Nan Zhang, UNM Biomedical Sciences Graduate Program, 2005 to 2009.
 - Member, Doctoral Dissertation Committee, Robert Dietz, UNM Biomedical Sciences Graduate Program, 2005 to 2007.
 - Member, Doctoral Dissertation Committee, Tom Cherng, UNM Biomedical Sciences Graduate Program, 2005-2006.
 - Member, Doctoral Dissertation Committee, Michael Paffett, UNM Biomedical Sciences Graduate Program, 2004-2008.
 - Member, Doctoral Dissertation Committee, Kyan Allahdadi, UNM Biomedical Sciences Graduate Program, 2004 to 2006.
 - Member, Doctoral Dissertation Committee, Jay Naik, UNM Biomedical Sciences Graduate Program, 2001 to 2003.
 - Member, Doctoral Dissertation Committee, Scott Earley, UNM Biomedical Sciences Graduate Program, 2001 to 2002.
 - Member, Doctoral Dissertation Committee, Ian Bratz, UNM Biomedical Sciences Graduate Program, 2000 to 2003.
 - Member, Doctoral Dissertation Committee, Harshini Mukundan, UNM Biomedical Sciences Graduate Program, 2000 to 2002.

M.D. FELLOW ADVISORY COMMITTEES:

COMMITTEE MEMBER:

- Member, Scholarship Oversight Committee, Marina Oren, M.D., Neonatal Medicine Fellowship Program, UNM School of Medicine, 2019-present.

NATIONAL MENTORING ACTIVITIES:

- Mentor, NIDDK Minority Travel Fellowship Program (American Physiological Society), 2005-2007, 2009, 2011, 2012.

RECOGNITION FOR TEACHING:

- HIPPO Award, Best Lecturer as voted by the UNM M.D. Class of 2021.
- William G. Dail Award for outstanding and lasting contributions as a teacher, mentor and leader in the medical and graduate education programs at the UNM School of Medicine, 2017-2020.
- Educational Excellence Award for Faculty, Teaching, Phase I Medical Curriculum, UNM School of Medicine, 2014-2015.
- Faculty Excellence in Teaching Award, Phase I Medical Curriculum, UNM School of Medicine, 2010-2011.
- Faculty Excellence in Teaching Award, Biomedical Sciences Graduate Program, UNM School of Medicine, 2004-2005.
- Nominee for Faculty Excellence in Curricular Leadership Award, UNM School of Medicine, 2004-2005.
- Nominee for Faculty Excellence in Teaching Award, Biomedical Sciences Graduate Program, UNM School of Medicine, 1995-1996, 2003-2004.

PEER-REVIEWED EDUCATION PAPERS:

- O'Donoghue, T.L., **T.C. Resta**, and B.R. Walker. Laboratory demonstration of baroreflex control of heart rate in conscious rats. *Adv. Physiol. Educ.* 26:309-316, 2002.
- **Resta, T.C.**, M.R. Eichinger, R.D. Russ, and B.R. Walker. Pulmonary circulation demonstration using an isolated rat lung model. *Am. J. Physiol.* 275 (20): S85-S95, 1998.

FORMAL EDUCATION TRAINING:

- *Virtual Teaching*, Office for Continuous Professional Learning, UNM School of Medicine, 2020.
- *How to Incorporate Flipped Learning into your Teaching*, Office for Medical Educator Development, UNM School of Medicine, 2017
- *Peer Instruction: THE Way to Teach with Clickers*, Office for Medical Educator Development, UNM School of Medicine, 2017.
- *Evidence-Based Presentation/Slide Design*, Office for Medical Educator Development, UNM School of Medicine, 2017.
- *Learn to Teach with Team-Based Learning by Experiencing TBL*, Office for Medical Educator Development, UNM School of Medicine, 2016.
- *Teaching with iClickers*, Office for Medical Educator Development, UNM School of Medicine, 2015.
- *Flipped Lecture Workshop*, Office for Medical Educator Development, UNM School of Medicine, 2015.
- *Transforming Your Lecture Presentations to Enhance Conceptual Learning*, Office for Medical Educator Development, UNM School of Medicine, 2014.
- *How do I Engage Students to Read Before Class?* Office for Medical Educator Development, UNM School of Medicine, 2014.
- *Peer Conversation about Teaching (PCAT) Program*, Office for Medical Educator Development, UNM School of Medicine, 2014.
- *How to Flip your Course*, Office for Medical Educator Development, UNM School of Medicine, 2014.
- *Developing the Skills of Physician as Educators in Academic Medicine: PowerPoint 202: Taking the Next Steps to Quality Presentations*, Teacher and Educational Development Workshop, UNM School of Medicine, 2010.
- *Promoting Learning Through Formative Assessment*, Teacher and Educational Development Workshop, UNM School of Medicine, 2007.
- *How People Learn: Implications for Teaching*, Teacher and Educational Development Workshop, UNM School of Medicine, 2007.
- *Creating Test Items: the Nuts and Bolts*, Teacher and Educational Development Workshop, UNM School of Medicine, 2007.
- *Focus on Multiple Choice Questions: Testing Higher Levels of Thinking*, Teacher and Educational Development Workshop, UNM School of Medicine, 2007.
- *The Art of Lecturing and Making Presentations: Strategies for Improving*

Your Skills, Teacher and Educational Development Workshop, UNM School of Medicine, 2007.

OTHER SERVICE:

DEPARTMENTAL:

- Chair, Departmental Faculty Search Committee, 2018-2019.
- Member, Departmental Faculty Search Committees, 2002-2004.
- Member, Departmental Committee on Targeted Graduate Student Recruitment, 2001-2003.
- Member, Departmental Imaging Facility Committee, 2001-2002.
- Exhibitor, SACNAS Conference in Phoenix, Arizona, for departmental graduate and faculty recruitment, 2001.

HEALTH SCIENCES CENTER:

- Member, Conflict of Interest Committee, University of New Mexico Health Sciences Center, 2018-present.
- Judge, Cardiovascular and Metabolic Disease (CVMD) Signature Program Research Day oral presentations, University of New Mexico Health Sciences Center, 2014, 2015, 2018, 2019.
- Judge, Undergraduate Pipeline Network (UPN) poster presentations, University of New Mexico Health Sciences Center, 2016-2017.
- Judge, Neuroscience Research Day poster presentations, University of New Mexico Health Sciences Center, 2017.
- Judge, Graduate Student Research Day oral/poster presentations, Biomedical Sciences Graduate Program, 2005-2009, 2015, 2016.
- Faculty Representative, Commencement ceremony, 2000, 2003, 2009.
- Member, New Mexico NIEHS P30 Center – RC2 Cardiovascular and Renal Toxicology Subcore, 2003-2007.
- Member, University of New Mexico Health Sciences Center Institutional Animal Care and Use Committee (IACUC), 2002-2005.
- Faculty representative, Graduate Student and Postdoctoral Fellow Retreat, 2005, 2011.

COMMUNITY:

Invited speaker for Highland High School National Honor Society Induction Ceremony, 2015.