Leah Renee Reznikov

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CURRENT Department of Physiological Sciences

AFFILIATION University of Florida

Gainesville, FL 32610

EDUCATION University of South Carolina School of Medicine, Columbia, SC.

Ph.D., Biomedical Sciences; focus in Neuroscience.

Aug 2004 - Aug 2008

University of Newcastle, Newcastle, New South Wales, Australia.

Regents Semester Study Abroad Program. Feb 2000 - June 2000

Iowa State University, Ames, IA.

B.S., Biology. Aug 1998 - Aug 2004

POSITIONS & **Department of Physiological Sciences, University of Florida**

AFFILIATIONS Associate Professor with tenure July 2022 - present

Department of Physiological Sciences, University of Florida

Assistant Professor June 2016 - June 2022

Department of Pharmacology, University of Florida

Affiliate Faculty Oct 2019 - present

Department of Animal Sciences, University of Florida

Affiliate Faculty Apr 2019 - present

Department of Neuroscience, University of Florida

Affiliate Faculty Oct 2018 - present

Department of Physiology and Functional Genomics, University of Florida

Affiliate Faculty Mar 2018 - present

Pulmonary, Critical Care, & Occupational Medicine, University of Iowa

Postdoctoral Research Scholar

Laboratory of Dr. Michael Welsh Sep 2010 - June 2016

Howard Hughes Medical Institute

 $Postdoctoral\ Research\ Associate$

Laboratory of Dr. Michael Welsh Sep 2008 - Aug 2010

University of South Carolina School of Medicine

Graduate Research Student Associate

Laboratories of Dr. Lawrence Reagan and Dr. Jim Fadel Aug 2004 - Aug 2008

University of South Carolina School of Medicine

Research technician

Laboratories of Dr. Lawrence Reagan and Dr. Jim Fadel Oct 2002 - July 2004

LEADERSHIP EXPERIENCE

Co-Chair

Lung Cellular & Molecular Biology Study Section

NIH

Curriculum Coordinator

Aug 2023 - present

Feb 2024

T32 BREATHE Training Program

University of Florida College of Public Health and Health Professions

Member & Graduate

Aug 2022 - May 2023

University of Florida Academy for Emerging Leaders

University wide competitive selection process

Founding Member

Aug 2022 - present

Postdoc Advancement Team McKnight Brain Institute

University of Florida College of Medicine

Gainesville, FL

Founding Member

Jan 2022 - present

Establishment of the Linda F. Hayward Achievement Award

Created an international award to recognize an individual for outstanding contributions to research in the autonomic nervous system. Additional criteria include excellence in diversity, equity, and inclusion, and those that self-identify as a woman physiologist. *Administered through the American Physiological Societ*

Certificate of specialization in Leadership and Management July 2021 - Feb 2022

Harvard Business School Online

Diversity and inclusion certificate

Sep 2021 - May 2022

eCornell (Cornell University)

Scientific Advisor

Aug 2017 - present

Cure Sanfilippo Foundation

help shape the funding initiatives and portfolio by providing key scientific and strategic feedback to the *Chief Scientific Officer*

HONORS

Teacher of the Year Award

May 2022

AND AWARDS Class of 2024

University of Florida College of Veterinary Medicine

College-wide award across instructors

Awardee

Giles Filley Memorial Award for Excellence in Respiratory Physiology

and Medicine

Apr 2022

American Physiological Society

Awardee

Rising Star Mentorship Program

June 2021

Global Virus Network Nominee

Zoetis Award for Veterinary Research Excellences

Apr 2021

University of Florida

College of Veterinary Medicine

Awardee

Scialog Fellow Apr 2021

Mitigating Zoonotic Threats

Research Corporation for Science Advancement

*50 fellows nationwide; had to decline invitation due to inability to attend required programmatic meetings

Awardee

McKnight Career Accelerator Award

Oct 2020

University of Florida

McKnight Brain Institute-wide across junior faculty members

Awardee

Excellence Award for Assistant Professors

Apr 2020

University of Florida

University-wide award across all Colleges and Departments

Awardee

Teacher of the Year Award

May 2019

Class of 2021

University of Florida College of Veterinary Medicine

College-wide award across instructors

Awardee

The Pew Charitable Trusts Biomedical Scholar candidate

June 2018

University of Florida

Only one candidate per University selected to compete nationally

Nature Research "Inspiring Science" Award

June 2018

Nominee

Distinguished Doctorate Alumni Award

Apr 2017

University of South Carolina School of Medicine

Awardee

Best Poster Award15th Annual Interdisciplinary Research Poster Session

Apr 2014

13 Annual Interdisciplinary Research 1 o

University of Iowa

Awardee

Cover Art Winner

Apr 2014

Health Sciences Research Week University of Iowa Carver College of Medicine Awardee

Women in Science and Engineering Award

Apr 2013

14th Annual Interdisciplinary Research Poster Session

University of Iowa

Awardee

Outstanding Poster Award

Apr 2013

Health Sciences Research Week

Postdoctoral Fellow and Staff Category

University of Iowa Carver College of Medicine

Awardee

Young Investigator Travel Award

Aug 2007

International Society of Psychoneuroendocrinology

Awardee

Chair Fund Recipient

Aug 2007

Amygdala in Health & Disease Gordon Research Conference

Awardee

Graduate Student Travel Award

Aug 2006

Society for Neuroscience

Awardee

Research Assistantship

Aug 2004 - Aug 2008

University of South Carolina School of Medicine

Awardee

Academic Recognition Scholarship

Aug 1998 - Aug 2002

Iowa State University

Awardee

TRAINEE HONORS &

AWARDS

Pedro Trevizan-Bau, PhD

Oct 2023 - present

Postdoctoral Fellow

Recipient of the University of Florida McKnight Brain Institute Gator

Neuroscholars Fellowship

Angelina Bonilla

Aug 2020 - Feb 2023

Undergraduate

University of Florida

Recipient of the SF2UF Scholarship

Carolina Le-Bert, DVM

Jan 2020 - Aug 2023

PhD Graduate Student

University of Florida

Recipient of the Department of Defense Funds for graduate work focused on cardiopulmonary physiology in large marine mammals.

Joshua Dadural Aug 2019 - Apr 2021

PharmD Student

Recipient of the Kappa Psi Foundation Scholarship

Eda Eken Mar 2019 - May 2021

PharmD Student University of Florida

Recipient of the Debbie Desantis Fellowship

Maria Guevara Nov 2017 - May 2019

Undergraduate in Chemical Engineering

Recipient of NSF Graduate Research Fellowship: Novel mucus penetrating particles (written and submitted under my guidance in October 2018, awarded April 2019)

Taylor Schwabb Aug 2018 - Dec 2018

High School Student

Recipient 2nd place at local science fair for project "Sesamol Influence on airway mucus secretion"

ACTIVE
RESEARCH
SUPPORT &
AWARDS

Cystic Fibrosis Foundation (Reznikov - PI) Apr 2023 - present

Mental Health Research Working Group

REZNIK23Y3

\$58.824 (direct) 0.9 calendar months

The goal of this working group is to define research direction and questions associated with mental health of individuals with cystic fibrosis

NIH/NHLBI (Mitchell - PI) Aug 2022 - present

(Reznikov - Co-I)

Breathing Research and Therapeutics (BREATHE)

T32HL134621

\$854,184 (direct) 1.0 calendar months

The goal of this T32 is to provide cutting edge training to predoctoral and postdoctoral trainees pursuing research in control of breathing.

NIH/NHLBI (Reznikov - PI) Jan 2021 - Nov 2025

Central Nervous System Plasticity in Airway Disease

1R01HL152101-01A1

\$1.250,000 (direct) 3.6 calendar months

The major goal of this project is to define central mechanisms of airway hyperreactivity in mice.

COMPLETED **UF Opportunity Grant** (Driver- PI) Apr 2021 - Apr 2023

RESEARCH SUPPORT

(Reznikov - Co-PI)

A Novel Pig Model to Unravel the Role of Natural Killer T cells in Asthma PRO00037480

\$164,000 (direct) 0.6 calendar months

The goal of this proposal is to establish the role of natural killer cells in a novel porcine model of asthma.

Katie Rose Foundation (Reznikov - PI) May 2020 - Apr 2023 Epithelial CREB-BDNF Regulation of Mucin in Cystic Fibrosis AWD08203

\$9,970 (direct)

This project tests the hypothesis that airway epithelial cell CREB-BDNF signaling regulates mucin production in mice.

Cystic Fibrosis Foundation (Du - PI) Nov 2021 - Oct 2023

(Reznikov - Co-PI)

CFTR Activators Regulate Emotional Behaviors

DU20I0

\$100,00 (direct) 0.6 calendar months

The goal of this proposal is to determine the role of CFTR in regulation on emotional behaviors using pharmacological, transgenic, and behavioral approaches. ** Grant was forfeited because UF was unable to execute the subaward in time.

NIH/OD (Long- PI) June 2021 - June 2023

(Reznikov - Other)

Seven Tesla Preclinical MRI/S Scanner for Structural, Functional and Molecular Imaging OD030293

\$2,000,000 (direct)

The goal of this proposal is to procure a preclinical 7T MRI scanner for the University of Florida McKnight Brain Institute. Approximately a dozen PIs at UF were listed as senior/key personnel, including myself.

Cystic Fibrosis Foundation (Reznikov - PI) Nov 2020 - Oct 2022 BDNF Regulation of Mucin in Cystic Fibrosis
REZNIKO20I0

\$100,000 (direct) 0.6 calendar months

The major goal of this project is to define the role of BDNF in regulation of airway mucin in mice and human cells.

NIH/OD (Reznikov - PI) July 2019 - Dec 2022 Transgenic Pigs with Red-Shifted Channelrhodopsin-Citrine Fusion Proteins OT2OD026582

\$684,271 (direct) 3.6 calendar months

The major goal of this project is to create a new porcine model that allows for the mapping and modulation of neural activity.

Cystic Fibrosis Foundation (Reznikov - PI)

Regulation of Inflammation and Mucus by CREB

REZNIKO19I0

Nov 2019 - Oct 2021

\$100,000 (direct) 0.6 calendar months

The goal of this proposal is to assess the therapeutic potential of CREB inhibition in a porcine model of cystic fibrosis.

NIH/NHLBI (Reznikov - PI) Aug 2016 - Dec 2020

Neural Pathogenesis of Airway Smooth Muscle Defects in Airway Disease RooHL119560

\$513,935 (direct) 3.0 calendar months

The major goal of this grant was to determine the contribution of defective neural regulation on airway smooth muscle function in a porcine model of asthma. The overarching hypothesis is that detection of airway insults by the sensory nerves innervating the airway contributes to airway hyperreactivity.

University of Florida CTSI (Reznikov - PI) Apr 2020 - Dec 2020 Targeted Disruption of ACE2-SARS-CoV-2 Interactions Using Small Molecules AWD06343

\$64,748 (direct) 0.6 calendar months

This project tested the ability of seven small molecules to prevent binding of SARS-CoV-2 glycoprotein to ACE2.

NIH/OD (Bolser - PI) Sep 2016 - July 2019

Reznikov - Project PI)

Functional Mapping of Peripheral and Central Circuits for Airway Protective Behaviors

OT2OD023854-03

\$721,148 (direct awarded to my lab)

3.6 calendar months

The major goal of this grant was to determine the key sensory molecules mediating protective behaviors, such as cough and mucus secretion, in neuroplastic states. The overarching hypothesis is that ASIC and TRP channels contribute to maladaptive neuroplasticity. This was a large multi-million-dollar award; amount listed is amount allocated to my lab.

Dovetail Genomics (Reznikov - PI) Nov 2017 - July 2018

Oryzomys palustris De Novo Genome Assembly \$8.825 (direct)

The goal of this award was to sequence and assemble a reference quality genome of *Oryzomys palustris*.

NIH/NHLBI (Reznikov - PI) Apr 2012 - June 2016 Neural Pathogenesis of Airway Smooth Muscle Defects in Airway Disease

1K99HL119560-01A1

\$180,000 (direct) 12.0 calendar months

The major goal of this grant was to determine the contribution of defective neural regulation on airway smooth muscle in a porcine model of cystic fibrosis. The overarching hypothesis is that balance of pro-relaxing and pro-contractile neuropeptides is disrupted.

NIH/NHLBI (Abboud - PI) Aug 2010 - Aug 2013 2T32HL007121-36 (Reznikov - trainee)

PATENTS

No. 63/070,124 Aug 25, 2020). Methods to prevent SARS-CoV-2 infection and treat COVID-19.

Ostrov D, Reznikov LR, Norris M. (U.S. Provisional Patent Application Serial

Reznikov LR. (U.S. Provisional Patent Application Serial No. 63/039,195 June 15, 2020). Diminazene aceturate as a treatment for COVID-19.

PEER
REVIEWED
PUBLICATIONS
(60 total)
(4824 citations)
(i10 index 46)
(h-index 32)

- 1. Sponchiado M, Bonilla AL, Mata L, Jasso-Johnson K, Liao YSJ, Fagan A, Moncada V, *Reznikov LR*. 2023. Club Cell CREB regulates the goblet cell transcriptional networks and pro-mucin effects of IL-1B. Front Physiol. 2023 Dec 20;14:1323865. doi: 10.3389/fphys.2023.1323865
- 2. Pelot NA, Vaseghi M, *Reznikov L*, Osborne PB, Conde SV. 2023 Editorial: Multiscale Anatomy and Biophysics of the Autonomic Nervous System: Implications for Neuromodulation. Frontiers in Neuroscience. 2023 Nov 1;17:1289177. doi: 10.3389/fnins.2023.1289177.
- 3. Marciante AB, Lurk C, Mata L, Lewis J, *Reznikov LR*, and Mitchell GS. 2023 Progressive tauopathy disrupts breathing stability and chemoreflexes during presumptive sleep in mice. Frontiers in Physiology, Respiratory Physiology, and Pathophysiology. Sep 21;14:1272980. doi: 10.3389/fphys.2023.1272980. eCollection 2023.
- 4. Madala SK, **Reznikov LR*. 2022. Lung fibrosis finds an unsung hero in neuropeptide Y. American Journal of Respiratory Cell and Molecular Biology. 2022 Dec 1; 67(6): 613-614. *corresponding author.
- 5. Sponchiado M, Liao YSJ, *Reznikov LR*. 2022. Identification of cholinergic cells with chemosensory traits in the porcine uterus. <u>Cell and Tissue Research</u>. Apr;388(1):33-47. doi: 10.1007/S00441-022-03585-1
- 6. *Reznikov LR*. To alkalinize or acidify, that is the question. 2022. <u>Biophysical Journal</u>. 5436-5437. doi: 10.1016/j.bpj.2021.11.012.
- 7. Meyerholz DK, **Reznikov LR*. 2022. Influence of SARS-CoV-2 on airway mucus production: a review and proposed model. Veterinary Pathology. doi: 10.1177/03009858211058837. *corresponding author.
- 8. Bouzek DC, Abou Alaiwa MH, Adam RJ, Pezzulo AP, *Reznikov LR*, Cook DP, Pescozo MA, Eyck PT, Wu C, Gross TJ, Hornick DB, Hoffman HA, Meyerholz DK,

- Stoltz DA. Early lung disease exhibits bacterial-dependent and independent abnormalities in cystic fibrosis pig. <u>American Journal of Respiratory and Critical Care Medicine.</u> 2021. In press. doi: 10.1164/rccm.202102-0451OC.
- 9. Sponchiado MS, Liao YSJ, Atanasova KR, Collins EN, Schurmann V, Bravo, L, **Reznikov LR*. Overexpression of substance P in pigs airways increases MUC5AC through a NF-kb pathway. <u>Physiological Reports</u>. 9(3):e14749. doi:10.14814/phy2.14749. 2021. *corresponding author
- 10. MZH, Xiang L, Liao YSJ, *Reznikov LR*, Du J. The underlying mechanism of modulation of transient receptor potential melastatin 3 by protons. <u>Frontiers in Pharmacology</u>. https://doi.org/10.3389/fphar.2021.632711. 2021.
- 11. *Reznikov LR*. From apples to airways why gravity matters. <u>Experimental Physiology</u> (commissioned). doi: 10.1113/EP089333. Online ahead of print. 2020. *corresponding author
- 12. *Reznikov LR' Norris MH, Vashisht R, Bluhm A, Li D, Liao YSJ, Brown A, Butte A, Ostrov DA*. Identification of antiviral antihistamines for COVID-19 repurposing. Biochemical Biophysical Research Communications. S0006-291X(20)32140-9. doi: 10.1016/j.bbrc.2020.11.095. Online ahead of print. PMCID: PMC7713548. 2020.*corresponding author
- 13. *Reznikov LR. PKCε-sensing in the carotid body a new target for asthma? <u>Journal of Physiology</u> (commissioned). doi: 10.1113/JP281080. Online ahead of print. 2020. *corresponding author
- 14. Liao YSJ, Collins EN, Guevara MV, Schurmann V, Atanasova KR, Bravo L, Sponchiado M, Hoegger MJ, **Reznikov LR*. Airway cholinergic history modifies mucus secretion properties to subsequent cholinergic challenge in diminished chloride and bicarbonate conditions. <u>Experimental Physiology</u>. 105(10):1673-1683. doi: 10.1113/EP088900. 2020. *corresponding author
- 15. Liao YSJ, Kuan SP, Guevara MV, Collins EN, Atanasova KR, Dadural JS, Vogt KM, Schurmann V, Bravo L, Eken E, Sponchiado M, **Reznikov LR*. Acid exposure Impairs mucus secretion and disrupts mucociliary transport in neonatal piglet airways. <u>AJP-Lung.</u> 318(5):L873-L887.doi: 10.1152/ajplung.00025.2020. PMCID: PMC7272746. 2020. *corresponding author
- 16. Kuan SP, Atanasova KR, Guevara MV, Collins EN, **Reznikov LR*. Long-term culturing of porcine nodose ganglia. <u>Journal of Neuroscience Methods</u>. 332:108546. doi: 10.1016/j.jneumeth.2019.108546. PMCID: PMC6954972. 2020. *corresponding author
- 17. Atanasova KR, **Reznikov LR*. Strategies for measuring airway mucus and mucins. Respiratory Research. 20(1):261. doi: 10.1186/S12931-019-1239-z. PMCID: PMC6873701. 2019. *corresponding author
- 18. Kuan SP, Liao YSJ, Davis KM, Messer JG, Zubcevic J, Aguirre JI, **Reznikov LR*. Attenuated amiloride-sensitive current and augmented calcium-activated chloride current in marsh rice rat (*Oryzomys palustris*) airways. <u>iScience.</u>19:737-748. doi: 10.1016/j.isci.2019.08.011. PMCID: PMC6731178. 2019. *corresponding author.

- 19. Yang T, Magee KL, Colon-Perez LM, Larkin R, Liao YSJ, Balazic E, Cowart JR, Arocha R, Redler T, Febo M, Vickroy T, Martyniuk J, *Reznikov LR*, Zubcevic J. Impaired butyrate absorption in the proximal colon, low serum butyrate and diminished entral effects of butyrate on blood pressure in spontaneously hypertensive rats. <u>Acta Physiologica</u>. 18:e13256. Doi: 10.1111/apha.13256. PMCID: PMC7199780. 2019.
- 20. Jiron JJ, Mendieta C, Castillo, EJ, Abraham AM, Messer JG, Malphurs WL, Malinowski C, Grove K, *Reznikov LR*, Zubcevic J, Aguirre JI. Comparison of isoflurane, ketamine-dexmedetomidine and ketamine-xylazine for general anesthesia during oral procedures in rice rats (*oryzomys palustris*). The Journal of the American Association for Laboratory Medicine. 58(1):40-49. PMCID: PMC6351055. 2019.
- 21. *Reznikov LR, Liao YSJ, Gu T, Davis K, Kuan SP, Atanasova KR, Dadural JS, Collins EN, Guevara MV, Vogt KM. Sex-specific airway hyperreactivity and sex-specific transcriptome remodeling in neonatal piglets challenged with intra-airway acid. <u>AJP-Lung</u>.316(1):L131-L143. doi: 10.1152/ajplung.00417.2018. PMCID: PMC6383496. 2019. *corresponding author
- 22. Meyerholz DK, Beck, AP, Goeken A, Leidinger MR, Ofori-Amanfo GK, Brown HC, Businga TR, Stoltz DA, *Reznikov LR*, Flaherty HA. Glycogen depletion can increase the specificity of mucin detection in airway tissues. <u>BMC Research.</u> 11(1):763. PMCID: PMC6203197. 2018.
- 23. Atanasova KR, **Reznikov LR*. Neuropeptides in asthma, chronic obstructive pulmonary disease and cystic fibrosis. <u>Respiratory Research</u>. 19(1):149. doi: 10.1186/S12931-018-0846-4. PMCID: PMC6090699. 2018. *corresponding author
- 24. Dadural JS, *Reznikov LR. Interest in and awareness of French president Emmanuel Macron's "make our planet great again" initiative. Social Sciences. 7(7), 102. 2018. *corresponding author
- 25. *Reznikov LR, Meyerholz DK, Abou Alaiwa MHA, Kuan SP, Liao YSK, Bormann N, Bair, T, Price M, Stoltz, DA, Welsh MJ. Vagal ganglia transcriptome identifies candidate therapeutics for airway hyperreactivity. <u>AJP-Lung.</u> 315(2):L133-L148. PMCID: PMC6139658. 2018. *corresponding author
- 26. **Reznikov LR*, Meyerholz DK, Kuan SP, Guevara M, Atanasova KR, Abou Alaiwa, MHA. Solitary cholinergic stimulation induces airway hyperreactivity and transcription of distinct pro-inflammatory pathways. <u>Lung.</u> 196(2):219-229. PMCID: PMC5975219. 2018. *corresponding author
- 27. Mao SF, Shah AS, Moninger TO, Ostedgaard LS, Lu L, Tang XX, Thornell IM, *Reznikov LR*, Ernst S, Karp PH, Tang P, Keshavjee S, Abou Alaiwa, MH, Welsh MJ. Motile cilia of human airway epithelia contain hedgehog signaling components that mediate noncanonical hedgehog signaling. <u>Proceedings of the National Academy of Sciences</u>. 115 (6): 1370-1375. PMCID: PMC5819449. 2018.

- 28. Meyerholz DK, **Reznikov LR*. Simple and reproducible approaches for the collection of select porcine ganglia. <u>J Neuroscience Methods.</u> 289:93-98. PMCID: PMC5582004. 2017. *corresponding author.
- 29. **Reznikov LR*. Cystic fibrosis and the nervous system. <u>Chest.</u> 151(5):1147-1155. PMCID: PMC5472519. 2017. *corresponding author
- 30. *Reznikov LR*, Meyerholz DK, Ryan AJ, Abou Alaiwa MH, Jaffer O, Michalski AS, Powers LP, Price MP, Stoltz DA, Welsh MJ. Acid-sensing ion channel 1a contributes to airway hyperreactivity in mice. <u>PLOS ONE.</u> 11(11):e0166089. PMCID: PMC5098826. 2016.
- 31. Shah VS, Meyerholz DK, Tang XX, *Reznikov L*, Abou Alaiwa MH, Ernst SE, Karp PK, Wohlford-Lenane CL, Heilmann KP, Leidinger MR, Allen PD, Zabner J, McCray PB, Ostedgaard LS, Stoltz DA, Randak CO, Welsh MJ. Airway acidification initiates host defense abnormalities in cystic fibrosis mice. <u>Science</u>. 351(6272):503-7. PMCID: PMC4852973. 2016.
- 32. Li K, Wohlford-Lenane C, Perlman S, Jewell AK, Gibson-Corley KN, *Reznikov LR*, Meyerholz DK, McCray PB. Middle east respiratory syndrome coronavirus causes multiple organ damage and lethal disease in mice transgenic for human dipeptidyl peptidase 4. <u>Journal of Infectious Diseases</u>. 213(5):712-22. PMCID: PMC4747621, 2016.
- 33. Cook DP, Rector MV, Bouzek DC, Michalski AP, Gansemer ND, *Reznikov LR*, Stroik MR, Ostedgaard LS, Abou Alaiwa MH, Thompson MA, Prakash YS, Krishnan R, Meyerholz DK, Seow C, Stoltz DA. CFTR in sarcoplasmic reticulum of airway smooth muscle: implications for airway contractility. <u>American Journal of Respiratory and Critical Care Medicine</u>. 193(4):417-26. PMCID: PMC4803085. 2016.
- 34. Meyerholz DK, Lambertz A, *Reznikov LR*, Ofori-armanfo G, Karp PH, McCray PB, Welsh MJ, Stoltz DA. Immunohistochemical detection of porcine markers for translational studies of lung diseases in pigs and humans. <u>Toxicologic Pathology</u>. 44(3):434-41. PMCID: PMC4805467. 2016.
- 35. Uc A, Olivier AK, Griffin MA Yao J, Abu-El-Haija M, Buchanan KM, Vanegas Calderon OG, Abu-El-Haija M, Pezzulo AA, *Reznikov LR*, Hoegger MJ, Rector MV, Ostedgaard LS, Taft PJ, Gansemer ND, Ludwig PS, Hornick EE, Stoltz DA, Ode KL, Welsh MJ, Engelhardt JF, Norris AW. Glycaemic regulation and insulin secretion are abnormal in cystic fibrosis pigs despite sparing of islet cell mass. <u>Clin Sci.</u> 128(2):131-42. PMCID: PMC4346161. 2015.
- 36. Du JY, *Reznikov LR*, Welsh MJ. Expression and activity of acid-sensing ion channels in the mouse pituitary. <u>PLoS ONE</u>. 9(12):e115310. PMCID: PMC4266673. 2014.
- 37. Abou Alaiwa MH, *Reznikov LR*, Gansemer N, Sheets K, Horswill A, Stoltz DA, Zabner J, and Welsh MJ. pH modulates the activity and synergism of the airway antimicrobials B-defensin-3 and LL37. <u>Proceedings of the National Academy of Sciences</u>. 30;111(52):18703-8. PMCID: PMC4284593. 2014.
- 38. Du JY, *Reznikov LR*, Price MP, Zha XM, Yuan L, Moninger TO, Wemmie JA, Welsh MJ. Protons are a neurotransmitter that regulates synaptic plasticity in the

- lateral amygdala. <u>Proceedings of the National Academy of Sciences</u>. 11(24):8961-6. PMCID: PMC4066526. 2014.
- 39. *Reznikov LR*, Abou Alaiwa MH, Dohrn CL, Gansemer N, Diekema DJ, Stoltz DA, Welsh MJ. Antibacterial properties of the CFTR potentiator ivacaftor. <u>Journal of Cystic Fibrosis</u>. pii: S1569-1993(14)00044-7. PMCID: PMC4718582. 2014.
- 40. Price MP, Gong H, Parsons MG, Kundert JR, *Reznikov LR*, Bernardinelli L, Chaloner K, Buchanan GF, Wemmie JA, Richerson GB, Cassell MD, Welsh MJ. Localization and behaviors in null mice suggest that ASIC1 and ASIC2 modulate responses to aversive stimuli. <u>Genes, Brain and Behavior.</u> 13(2):179-94. PMCID: PMC3998777, 2013.
- 41. Stoltz DA, Rokhlina T, Ernst SE, Pezzulo AA, Ostedgaard LS, Karp PH, Samuel MS, *Reznikov LR*, Rector MV, Gansemer ND, Bouzek DC, Abou Alaiwa MH, Hoegger MJ, Ludwig PS, Taft PJ, Wallen TJ Wohlford-Lenane C, McMenimen JD, Chen JH, Bogan KL, Adam RJ, Hornick EE, Nelson, IV GA, Hoffman EA, Chang EH, Zabner J, McCray, Jr. PB, Prather RS, Meyerholz DK, Welsh MJ. Intestinal CFTR expression alleviates meconium ileus in cystic fibrosis pigs. J Clinical Investigations. 123(6):2685-93. PMCID: PMC3668832. 2013.
- 42. *Reznikov LR*, Dong Q, Chen JH, Moninger TO, Park JM, Zhang Y, Du JY, Hildebrand MS, Smith RJ, Randak CO, Stoltz DA, Welsh MJ. CFTR-deficient pigs display peripheral nervous system defects at birth. <u>Proceedings of the National Academy of Sciences</u>. 110(8):3083-3088. PMCID: PMC3581923. 2013 (*Selected as cover*)
- 43. *Piroli GG, **Reznikov LR*, Grillo CA, Hagar JM, Fadel JR, Reagan LP. Tianeptine modulates amygdalar glutamate neurochemistry and synaptic proteins in rats subjected to repeated stress. <u>Experimental Neurology</u>. 241:184-93. 2012. (**co first-author*)
- 44. Reagan LP, *Reznikov LR*, Evans AN, Gabriel-Gracia C, Mocaer E, Fadel JR. The antidepressant agomelatine inhibits stress-mediated changes in amino acid efflux in the rat hippocampus and amygdala. <u>Brain Research</u>. 1466:91-8. 2012.
- 45. Change EH, Pezzulo AA, Meyerholz DK, Potash AE, Wallen TJ, *Reznikov LR*, Sieren J, Karp PH, Ernst S, Moninger TO, Gansemer ND, McCray PB, Stoltz DA, Welsh MJ, Zabner J. Sinus hypoplasia precedes sinus infection in a porcine model of cystic fibrosis. <u>Laryngoscope</u>. 122(9):1898-905. PMCID: PMC3449319. 2012.
- 46. Ostedgaard LS, Meyerholz DK, Chen JH, Pezzulo AA, Karp PH, Rohklina T, Ernst SE, Hanfland RA, *Reznikov LR*, Ludwig PS, Rogan MP, Davis GJ, Dohrn CL, Wohlford-Lenane C, Taft PJ, Rector MV, Hornick E, Nassar BS, Samuel M, Zhang Y, Richter SS, Uc A, Shilyansky J, Prather RS, McCray PB, Zabner J, Welsh MJ and Stoltz DA. The Δ F508 mutation causes misprocessing of CFTR in pigs and produces the gastrointestinal and lung disease of cystic fibrosis. <u>Science Translational Medicine</u>. 3: (74): 74ra24. PMCID: PMC3119077. 2011.
- 47. *Rogan MP, **Reznikov LR*, Pezzulo AP, Gansemer N, Samuels M, Prather R, Zabner J, Fredericks DC, McCray PB. Welsh MJ and Stoltz DA. Pigs and humans

- with cystic fibrosis have reduced IGF-1 levels at birth. <u>Proceedings of the National Academy of Sciences</u>. 107 (47): 20571-5. PMCID: PMC2996661. 2010. (**co first-author*)
- 48. Chen JH, Stoltz DA, Karp PH, Ernst SE, Pezzulo AP, Moninger TO, Rector MV, *Reznikov LR*, Lanspach JL, Chaloner K, Zabner J, Welsh MJ. Loss of anion transport without alterations in sodium absorption characterize porcine cystic fibrosis airway epithelia. <u>Cell.</u> 143 (6): 911-23. PMCID: PMC3057187. 2010.
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- 51. *Reznikov LR*, Reagan LP, Fadel JR. Effects of acute and repeated restraint stress on GABA efflux in the rodent basolateral and central amygdala. <u>Brain Research.</u> 1256:61-8. 2009.
- 52. *Reznikov LR*, Reagan LP, Fadel JR. Activation of phenotypically distinct neuronal subpopulations in the rat basolateral amygdala following acute and repeated stress. <u>Journal of Comparative Neurology.</u> 508:458-472. 2008.
- 53. Grillo CA, Tamashiro KL, Piroli GG, Gass JT, *Reznikov LR*, Smith A, Wilson SP, Sakai RR, Reagan LP. Lentivirus-mediated downregulation of hypothalamic insulin receptor expression. <u>Physiology & Behavior</u>. 4:691-701. PMCID: PMC2129218. 2007.
- 54. *Reznikov LR*, Grillo CA*, Piroli GG, Pasumarthi R, Reagan LP, Fadel JR. Acute stress mediated increases in extracellular glutamate levels in the rat amygdala: differential effects of antidepressant treatment. <u>European Journal of Neuroscience</u>. 10:3109-14. 2007. (*co first-author)
- 55. Piroli GG, Grillo CA, *Reznikov LR*, Adams S, McEwen BS, Charron MJ, Reagan LP. Corticosterone impairs insulin stimulated translocation of GLUT4 in the rat hippocampus. <u>Neuroendocrinology</u>. 2:71-80. 2007.
- 56. Reagan LP, Hendry RM, *Reznikov LR*, Piroli GG, Wood GE, McEwen BS, Grillo CA. Tianeptine increases brain-derived neurotrophic factor expression in the rat amygdala. <u>European Journal of Pharmacology</u>. 1-3:68-75. 2007.
- 57. Pasumarthi R, *Reznikov LR*, Fadel J. Activation of orexin neurons by acute nicotine. <u>European Journal of Pharmacology</u>. 1-3:172-6. 2006.
- 58. Winocur G, Greenwood CE, Piroli GG, Grillo CA, *Reznikov LR*, Reagan LP, McEwen BS. Memory impairment in obese zucker rats: an investigation of cognitive function in an animal model of insulin resistance and obesity. <u>Behavioral Neuroscience</u>. 5:1389-95. 2005.
- 59. Grillo CA, Piroli GG, Wood GE, *Reznikov LR*, McEwen BS, Reagan LP. Radioimmunocytochemical analysis of synaptic proteins provides new insight into morphological plasticity in the rat hippocampus. <u>Neuroscience</u>. 2:477-486. 2005.

60. Fadel J, Pasumarthi R, Reznikov LR. Stimulation of cortical acetylcholine release by orexin A. Neuroscience. 2:541-7. 2005.

BOOK **CHAPTERS**

Reznikov LR, Reagan LP, Fadel JR. Anatomical and neurochemical correlates of stress in the amygdala. CNS Mechanisms Involved in Learned Autonomic Adjustments. (invited request). Powell, D.A. (ed). Research Signpost Publishers. ISBN 978-81-308-0391-3. 2013.

Reznikov LR, Fadel JR, Reagan LP. Glutamate-mediated neuroplasticity deficits in mood disorders. In:Costa e Silva JA, Macher JP, Olie JP, editors Neuroplasticity: New Biochemical Mechanisms. (invited request). London: Springer; pp.13-26. 2011.

Piroli GG, Grillo CA, Reznikov LR, Reagan LP. Expression and functional activities of glucose transporters in the central nervous system (invited request). Handbook of Neurochemistry and Molecular Neurobiology.3rd edition. Springer US. 2007.

SELECTED **ABSTRACTS** AND POSTER

Sponchiado M, Fagan A, Mata L, Bonilla AL, Trevizan-Bau P, Prabakaharan S, Reznikov LR. Sex Dependent Regulation of Mucin Gene Transcription and Goblet Cell Secretion Machinery Following Intra-Airway IL-13 in Mice with Conditional Loss of Club Cell Creb1. The American PRESENTATIONS Physiological Society Summit. Accepted Abstract. 2024.

> Sponchiado M, Bonilla AL, Mata L, Liao YSJ, Fagan A, Moncada V, Reznikov LR. Club cell CREB regulates the goblet cell transcriptional network and pro-mucin effects of IL-1B in male murine airways. Gordon Research Conference. Mucus, Cilia, Mucociliary Interactions. 2023.

> Beck S, Mata L, Reznikov LR. Structural remodeling of the basolateral amygdala in ovalbuminsensitized asthmatic mice: Preliminary Study Findings. Phi Zeta Research Day. University of Florida College of Veterinary Medicine. 2023.

> Jasso-Johnson K, Mata L, Bonilla AL, Reznikov LR. Modulation of the Brain-Derived Neurotropic Factor (BDNF) pathway increases mucin production in human airway cells: Preliminary Study Findings. Phi Zeta Research Day. University of Florida College of Veterinary Medicine. 2023.

Sponchiado M, Bonilla AL, Mata L, Liao YSJ, Fagan A, Moncada V, Reznikov LR. Loss of club cell CREB mitigates IL-1B-mediated muco-obstructive phenotypes in male murine airways. Experimental Biology. 2022.

Sponchiado M, Liao YSJ, Reznikov LR. Evidence of cholinergic cells with chemosensory traits in the porcine uterine epithelia. Society for the Study of Reproduction. Contraceptive Symposium. 2021.

Sponchiado M, Liao YSJ, Atanasova KR, Collins EN, Schurmann V, Bravo L, Reznikov LR. Overexpression of substance P increases MUC5AC through a NF-kB pathway. American Thoracic Society. 2021.

Sponchiado M, Liao YSI, Spate A, Spate L, Cecil RF, Fudge MA, Pfeiffer CA, Whitworth KM, Well KG, Prather RS, Reznikov LR. SPARC: Development of a transgenic pigs expressing mCherry and CRE recombinase fusion proteins under control of the murine choline acetyltransferase promoter. Experimental Biology. 2021.

Sponchiado M, Liao YSJ, Atanasova KR, Collins EN, Schurmann V, Bravo L, Reznikov LR. Overexpression of substance P increases MUC₅AC. North American Cystic Fibrosis Conference.

Collins EN, Liao YSJ, Guevara MV, Schurmann V, Atanasova KR, Reznikov LR. Durable changes to airway mucus secretion following a single cholinergic challenge. Experimental Biology. Kuan SP, Atanasova KR, Liao YSJ, Guevara MV, Pompilus M, Collins EN, Moore J, Febo M, *Reznikov LR*. Amygdalar plasticity in airway disease. Experimental Biology. 2020.

Liao YSJ*, Kuan SP*, Guevara MV*, Collins EN*, Atanasova KR*, Dadural JS, Vogt KM, Schurmann V, *Reznikov LR*. Protective Effect of diminazene aceturate in acid-induced airway obstruction. Experimental Biology. 2020.

Sponchiado M, Liao YSJ, Collins EN, Whitworth KM, Well KG, Prather RS, *Reznikov LR*. Development of pigs with mCherry-CRE recombinase fusion proteins in cholinergic neurons. Experimental Biology. 2020.

INVITED
EXTRAMURAL
ORAL
PRESENTATIONS

- "Preclinical Insights for CFTR modulation in the Brain". Cystic Fibrosis Foundation. Annual PRIME meeting. Bethesda, Maryland USA. 2023.
- PRESENTATIONS "Regulating airway inflammatory responses through conditional loss of cell plasticity proteins." R. Ken Koit College of Pharmacy. University of Arizona. Tucson, Arizona, USA. 2023.
 - **"BDNF Regulation of Airway Mucin."** Gordon Research Conference. Lung Development, Injury and Repair. Waterville Valley, New Hampshire, USA. 2023
 - "Amygdalar Modulation of Airway Pathology in a Murine Model of Allergic Asthma." Informing the Immune Response: The Role of the Autonomic Nervous System with Immunity and Inflammation. American Physiological Society. Long Beach, California. 2023
 - "Central and Peripheral Regulation of Airway Mucus and Airway Hyper-reactivity." Department of Internal Medicine. University of Iowa. Iowa City, Iowa. 2023
 - "Club Cell CREB Regulates the Goblet Cell Transcriptional Network and Pro Mucin Effects of IL-1B in Male Murine Airways." Gordon Research Conference. Cilia, Mucus, and Mucociliary Interactions. Barga, Italy. 2023
 - **"Central and Peripheral Mechanisms of Airway Disease."** Department Medical Pharmacology and Physiology. University of Missouri. Columbia, Missouri. 2022
 - "Central and Peripheral Regulation of Airway Mucus and Airway Hyperreactivity." Department of Pediatrics. University of California San Diego. San Diego, California. 2022
 - "Probing the Airways for Neural Insights." Department of Pediatrics. University of California San Diego, California. 2021
 - "Developing neuroscience tools through genetic engineering in pigs." Talent Development Center. FDA. 2021
 - "Molecules and models for COVID-19." Department of Pulmonary and Critical Care. University of California San Diego. San Diego, California. 2021
 - **"Molecules and models for COVID-19."** Control of Breathing Interest Group.International Virtual Seminar Series organized by Atul Malhotra, UC Health. San Diego, California. 2020

- "Dissecting the airway-nervous system interface in health and disease." Department of Pharmacology. LSU. College of Medicine. New Orleans, LA. 2019.
- "Acute airway acidification modifies mucus secretion and airway transport **Properties.**" Autonomic control of respiration function session. ISAN SPARC. Los Angeles, CA. 2019.
- "Distinct ion transport properties in the airways of the marsh rice rat (*Oryzomys palustris*)." Osmoregulation Ion regulation workshop. American Physiological Society Comparative Physiology section. New Orleans, LA. 2018.
- "Acute airway acidification modifies mucus secretion and airway transport properties." CF Airway Inflammation workshop. NACFC. Denver, CO. 2018.
- "Neural mechanisms of airway hyperreactivity." Neuroplasticity of airway reflexes session. Experimental Biology. San Diego, CA. 2018.
- "The vagal ganglia transcriptome in mice lacking ASIC1a identifies candidate compounds to treat airway hyperreactivity." Department of Pediatrics. University of Indiana. Indianapolis, IN. 2016.
- "The vagal ganglia transcriptome in mice lacking ASIC1a identifies candidate compounds to treat airway hyperreactivity." Health Sciences Center. University of Arizona. Tucson, AZ. 2016.
- "The vagal ganglia transcriptome in mice lacking ASIC1a identifies candidate compounds to treat airway hyperreactivity." University of Florida. Department of Physiological Sciences. Gainesville, FL. 2016.
- "Nervous system phenotypes in pigs with cystic fibrosis." Department of Biological Sciences. Waldorf College. Forest City, IA. 2016.
- "Nervous system phenotypes in pigs with cystic fibrosis." Department of Biological Sciences. Ohio University. Athens, OH. 2016.
- "Nervous system phenotypes in pigs with cystic fibrosis." Department of Cellular and Integrative Physiology. University of Nebraska Medical Center. Omaha, NE. 2015.
- "Nervous system phenotypes in pigs with cystic fibrosis." Kansas State College of Veterinary Medicine. Department of Anatomy and Physiology. Manhattan, KS. 2014.
- "Nervous system phenotypes in pigs with cystic fibrosis." Sanford Children's Health Research Center. Sioux Falls, SD. 2014.
- "Nervous system phenotypes in pigs with cystic fibrosis." Department of Environmental Health Sciences. Johns Hopkins Bloomberg School of Public Health. Baltimore, MD. 2014.
- "Nervous system phenotypes in pigs with cystic fibrosis." University Department of Biomedical Sciences. East Tennessee State University. Johnson City, TN. 2014.

- "Antibacterial properties of CF potentiator ivacaftor." Epidemiology & management of CF pulmonary infections workshop. NACFC. Salt Lake City, UT. 2013.
- "Nervous system phenotypes in cystic fibrosis pigs." CF animal models, the latest and greatest symposium. NACFC. Orlando, FL. 2012.
- "Effects of acute and repeated restraint stress in the rodent amygdala." Department of Psychiatry and Behavioral Neuroscience. University of Chicago. Chicago, IL. 2008
- "Effects of acute and repeated restraint stress in the rodent amygdala." Department of Internal Medicine. University of Iowa. Iowa City, IA. 2008
- "Activation of the GABAergic system in the rat basolateral amygdala following acute restraint stress: neurochemical and neuroanatomical insights." Young Investigator Symposium. International Society of Psychoneuroendocrinology. Madison, WI. 2007.

INVITED
OTHER
ORAL
PRESENTATIONS

- "Local and Central Control of Airway Physiology Under Inflammatory Conditions." Department of Physiological Sciences. University of Florida College of Veterinary Medicine. Gainesville, FL. 2023.
- "Regulation of Airway Mucin in Response to Inflammatory Insults."

 Division of Pulmonary Medicine. University of Florida, Gainesville, FL. 2023.
- "Targeted Disruption of ACE2-SARS-CoV-2 interactions using small Molecules." University of Florida CTSI: Clinical Care & Therapeutics & Vaccines Symposium. 2022.
- **"Hope is love on a mission."** Part of the "A night with no lectures" series University of Florida College of Veterinary Medicine. Gainesville, FL. 2021.
- **"Small molecule candidates for COVID-19 treatment."** Department of Physiology and Functional Genomics. University of Florida. Gainesville, FL. 2020.
- "Targeted disruption of SARS-CoV-2 interactions using small molecules." CTSI. University of Florida. Gainesville, FL. 2020.
- "Neural mechanisms of airway disease." McKnight Brain Institute. University of Florida. Gainesville. FL. 2020.
- "Neural regulation of airway smooth muscle and airway epithelial cells." Center for Rehabilitation and Respiratory Research Retreat. PI Data Blitz Session. University of Florida. College of Public Health. Gainesville, FL. 2020.
- "Airway acidification and asthma." Department of Physiological Sciences. University of Florida. College of Veterinary Medicine. Gainesville, FL. 2019.
- "Dissecting the airway-nervous system interface in health and disease." The Perinatal Biology Outcomes Research Center. University of Florida. Gainesville, FL. 2019.

- "Dissecting the airway-nervous system interface in health and disease." Department of Neuroscience. University of Florida. College of Medicine. Gainesville, FL. 2019.
- "Dissecting the airway-nervous system interface in health and disease." Department of Pharmacology. University of Florida. College of Medicine. Gainesville, FL. 2019.
- "Dissecting the airway-nervous system interface in health and disease." University of Florida College of Medicine Data Blitz. Gainesville, FL. 2019.
- "Acute airway acidification modifies mucus secretion and transport properties." Department of Animal Sciences. University of Florida. Gainesville, FL. 2019
- "Publons." University of Florida National Peer Review Week Peer Review Seminar Gainesville, FL. 2018.
- "How I became interested in science." University of Florida College of Engineering E-week. Gainesville, FL. 2018.
- "Promoting investigator-IACUC understanding." Institutional Animal Care and Use Committee. University of Florida. Gainesville, FL. 2017.
- "Neural mechanisms of airway disease: possibly probable or probably impossible." Department of Physiological Sciences. University of Florida. Gainesville, FL. 2017.
- "Novel nervous system phenotypes in pigs with cystic fibrosis." Neurology 2nd Annual Fall Symposium: Neurogenetics. University of Iowa. Iowa City, Iowa. 2014.

Novel nervous system phenotypes in pigs with cystic fibrosis." Physiology Workshop Seminar Series. University of Iowa. Iowa City, IA. 2012.

- "White matter anomalies in cystic fibrosis." Cardiovascular Center Seminar Series. University of Iowa. Iowa City, IA. 2010.
- "Activation of distinct neuronal phenotypes in the rat basolateral amygdala following acute and repeated stress." Data Blitz Session. 3rd Annual GA/SC Neuroscience Consortium. Columbia. SC. 2008.

EDITORIAL
ACTIVITIES
EDITORIAL
ACTIVITIES

Guest Associate Editor, Frontiers in Neuroscience	Nov 2022 - present
Autonomic section Special Issue	
Associate Editor, Frontiers in Neuroscience	Apr 2022 - present
Autonomic section	
Reviewing Editor, Frontiers in Molecular Biosciences	Feb 2021 - present
Cellular Biochemistry section	
Guest Associate Editor, Frontiers in Pharmacology	Dec 2020 - Jan 2021
Reviewing Editor, Experimental Physiology	Jan 2019 - present
Editorial Board Member, Physiology and Behavior	July 2019 - present

JOURNAL REVIEWING Journal of Physiology | Frontiers in Cell and Developmental Biology | Chest | Cell Reports | Respiratory Research Neurobiology of Stress | Frontiers in Neuroscience | BMC Genomics | ACTIVITIES (200+ peer reviews; see Web of Science for verification) Neuroscience and Biobehavioral Reviews | Journal of Cystic Fibrosis | Experimental Physiology | Proceedings of the National Academy of Sciences | Frontiers in Medicine | Biomaterials Science | Current Medicinal Chemistry | Biomedicine & Pharmacology | Journal of Pain Research | Neuroscience and Biobehavioral Reviews | British Journal of Pharmacology | Physiology and Behavior | International Journal of Molecular Sciences Scientific Reports | Science Advances | PLOS One | Journal of Neuroscience Research | Journal of Applied Microbiology | Atmosphere | BMJ Open Respiratory Research | International Journal of Environmental Research and Public Health | International Journal of Nanomedicine | International Journal of Chronic Obstructive Pulmonary Disease | Journal of Clinical Medicine | Journal of Thoracic Disease | Journal of Pediatric Genetics | Cell Biology International | Patient Preference and Adherence | Allergologia et Immunopathologia | Pulmonary Research and Respiratory Care Journal | Pulmonary Pharmacology and Therapeutics | Frontiers in Molecular Biosciences | JCI Insight | Frontiers in Physiology | Science of Total Environment | American Journal of Respiratory Cell and Molecular Biology | Frontiers in Pharmacology | Frontiers in Immunology | Journal of Neuroinflammation |

GRANT REVIEWING ACTIVITIES

American Heart Association

Second Century Early Faculty Independence Award Reviewer (ad hoc)

Jan - Feb 2024

The Wellcome Trust UK

Jul - Aug 2023

Reviewer (ad hoc)

University of Washington Cystic Fibrosis Research Development ProgramReviewer (*ad hoc*)

June 2023

United Kingdom Research and Innovation Medical Research Council

Reviewer (ad hoc) Nov 2022 - Dec 2022

Lung Cellular & Molecular Biology

July 2022 - present

Member

NIH Study section

Cystic Fibrosis Canada

Oct 2021 - present

Reviewer (ad hoc)

American Heart Association

July 2021 - Nov 2021

Signaling 1 Fellowship Reviewer (ad hoc)

Department of Defense

Apr 2021 - June 2021

Respiratory Health Reviewer (*ad hoc*)

National Institutes of Health

Apr 2021 - June 2021

Lung Cellular, Molecular, and Immunobiology

Reviewer (ad hoc)

American Heart Association

Dec 2020 - March 2021

Signaling - Basic Science

Reviewer (ad hoc)

Department of Defense

June 2020 - July 2020

Respiratory Health Reviewer (ad hoc)

Cystic Fibrosis Europe

Mar 2020

Reviewer (ad hoc)

European Cystic Fibrosis Society

Mar 2020

Reviewer (ad hoc)

National Institutes of Health

Dec 2019 - Feb 2020

Respiratory Integrative Biology and Translational Research

Reviewer (ad hoc)

American Heart Association

Aug 2019 - Oct 2019

Molecular Signaling Reviewer (ad hoc)

Department of Defense

Jul 2019 - Sep 2019

Lung Injury
Reviewer (ad hoc)

Cystic Fibrosis Canada

Dec 2018 - Jan 2020

Reviewer

Cure Sanfilippo Foundation

Aug 2017 - present

Reviewer

European Cystic Fibrosis Society

Feb 2015

Reviewer (ad hoc)

Coordinator

TEACHING

Co-Course Coordinator/Director

Fall 2023

AND INSTRUCTION

Physiological Sciences Seminar Series (VEM6932). 1 credit hour

University of Florida College of Veterinary Medicine

Fall 2023

Problems in Veterinary Medical Sciences (VME6905). 3 credit hours

University of Florida College of Veterinary Medicine

Invited Lecturer

Spring 2022

Breathing and Airway Defense: Implication for Rehabilitation (PHT6935C). 3 credit

hours

University of Florida College of Public Health and Health Professionals

Course Director: Dr. Gordon Mitchell

Invited Lecturer Fall 2021

Human Translational Physiology (BMC3521). 3 credit hours

University of Florida College of Medicine

Course Director: Dr. Erin Bruce

Invited Lecturer Fall 2020

NAVLE Review of Pharmacology

University of Florida College of Veterinary Medicine

Class of 2021

Invited Lecturer Fall 2020

Human Translational Physiology (BMC3521). 3 credit hours

University of Florida College of Medicine

Course Director: Dr. Erin Bruce

Invited Lecturer Spring 2020

Breathing and Airway Defense: Implication for Rehabilitation (PHT6935C). 3 credit

University of Florida College of Public Health and Health Professionals

Course Director: Dr. Gordon Mitchell

Invited Lecturer Fall 2019

Neuroscience Seminar (GMS774). 1 credit hour

University of Florida College of Medicine

Course Director: Dr. Jeremy McIntyre

Course Coordinator/Director

Fall 2019

Engineering Research (EGN4912). 1 credit hour

University of Florida College of Engineering

Student trainee: Veronica Schurmann

Course Coordinator/Director and Primary Lecturer

Fall 2017 - present

Veterinary Pharmacology (VEM5171). 3 credit hours, 130+ students

University of Florida College of Veterinary Medicine

Average mean student evaluation of 4.8/5. I currently teach 22/42 lectures.

Course Coordinator/Director

Spring 2018

Physiological Sciences Seminar Series (VEM6932). 1 credit hour

University of Florida College of Veterinary Medicine

Lecturer Fall 2016

Veterinary Pharmacology (VEM5171). 3 credit hours

College of Veterinary Medicine

Course Director: Dr. Tom Vickroy

Invited Lecturer Fall 2016

Introduction to Research for Pulmonary Fellows

University of Iowa Department of Internal Medicine

Course Director: Dr. Mahmoud Abou Alaiwa

Lecturer and Laboratory Instructor

Neurobiology (BIOL3656)

University of Iowa Department of Biology

Course Director: Dr. Michael Dailey

Lecturer and Laboratory Instructor

Neurobiology (BIOL3656)

University of Iowa Department of Biology

Course Director: Dr. Michael Dailey

Laboratory Instructor

Medical Neuroscience (MED286)

University of Iowa Department of Cell Biology and Anatomy

Course Directors: Drs. Justin Sipla and Martin Cassell

Lecturer and Laboratory Instructor

Neurobiology (BIOL3656)

University of Iowa Department of Biology

Course Director: Dr. Michael Dailey

Lecturer Spring 2014

Evolution (BIOL3172)

University of Iowa Department of Biology

Course Director: Dr. Maurine Neiman

Invited Lecturer Fall 2007

Introduction to Methods in Biomedical Sciences Graduate Student Course

University of South Carolina School of Medicine

Course Director: Dr. Marlene Wilson

Laboratory Instructor

Fundamental Neuroscience Graduate Student Course

University of South Carolina School of Medicine

Course Director: Dr. James Augustine

MENTORING AND TRAINING

TRAINING ACTIVITIES

International STEM Mentor Mar 2018 - Oct 2019

and National 1000 Girls 1000 Futures, New York Academy of Sciences

STEM U Mentor Oct 2018 - Oct 2019

New York Academy of Sciences (program ended)

STEM Mentor Sep 2017 - Oct 2018

Spring 2016

Spring 2015

Spring 2014

Spring 2014

Fall 2007

United Technologies

New York Academy of Sciences (program ended)

University Research Faculty Mentor

NIH MARC May 2021 - present

Research Faculty Mentor

SF2UF Bridge to Baccalaureate Aug 2020 - present

Mentor Aug 2018 - May 2021

University of Florida Minority Mentoring Program (UMMP)

College Research Mentor Apr 2018 - present

University of Florida College of Medicine Summer Neuroscience Internship Program

Faculty Faculty Mentor Committee Member Dec 2023 - present

and Yasin Seven

Postdoctoral Assistant Professor

Mentees University of Florida College of Veterinary Medicine

Faculty Mentor Committee Member Aug 2023 - present

Emma Schachner Assistant Professor

University of Florida College of Veterinary Medicine

Primary Advisor Oct 2023 - present

Pedro Trevizan-Bau Gator Neuroscholar

University of Florida College of Veterinary Medicine Project: Sympathetic regulation of airway inflammation

Primary Advisor Aug 2022 - July 2023

Kalene Jasso, PhD Postdoctoral Scholar

University of Florida College of Veterinary Medicine

Project: BBS proteins in airway inflammation

Primary Advisor Oct 2019 - Oct 2022

Mariana Sponchiado, DVM, PhD

Postdoctoral Scholar

University of Florida College of Veterinary Medicine

Project: Development of pigs with reporter proteins in neurons

Primary Advisor May 2017 - Apr 2019

Kalina Atanasova, DVM, PhD Assistant Research Scientist

University of Florida College of Veterinary Medicine

Project: Neural regulation of airway physiology in pigs and mice

*currently a senior scientist in the College of Pharmacy at University of Florida

Research Mentor July 2015 - Oct 2015

Michael S. Hoffman, MD, PhD

Pulmonary Fellow

University of Iowa College of Medicine

Project: Neural control of human and porcine airway epithelia function.

Laboratory of Dr. Michael Welsh

*currently a pulmonologist at Mercy of Iowa City

Graduate Graduate Committee Member Mar 2024 - present

And Ganlin Qu Professional PhD candidate

Mentees Department of Medicine

Graduate Committee Member Feb 2024 - present

Alexis Slack PhD candidate

Department of Physiological Sciences

Graduate Committee Member Nov 2023 - present

Lexi Riley-DiPaola PhD candidate

Department of Neuroscience

Graduate Committee Member Sept 2023 - present

Nickolas Diodati PhD candidate

Department of Medicine

Graduate Committee Member July 2023 - present

Harrison Clarke PhD candidate

Department of Biochemistry and Molecular Biology

Graduate Committee Member April 2023 - present

Gabriella Robilotto PhD candidate

Physiological Sciences

Primary Advisor Oct 2022 - Apr 2023

Steven Beck, BS PhD candidate

Physiology and Functional Genomics

Primary Advisor Jan 2020 - Aug 2023

Carolina Le-Bert, DVM

PhD candidate

Physiology and Functional Genomics

University of Florida College of Medicine

Project: Cardiopulmonary physiology in large marine mammals

*Graduated with PhD

*currently the supervising veterinarian for the swimmer defense program at King Bay Naval satellite facility

Primary Advisor

Mar 2019 - May 2021

Joshua Dadural

PharmD Candidate

University of Florida College of Pharmacy

Project: Neural control of airway smooth muscle and mucus secretion in pigs

*graduated with PharmD

Primary Advisor

Aug 2019 - Apr 2021

Eda Eken

PharmD Candidate

University of Florida College of Pharmacy

Project: Development of molecular tools for modulation of porcine neurons

*graduated with PharmD

Graduate Committee Member

Aug 2018 - Dec 2021

Melany Madrid

PhD Candidate

Animal Sciences

University of Florida Institute of Food and Agricultural Sciences

Project: Novel antiviral development in humans and swine

*graduated with PhD

Graduate Committee Member

Apr 2018 - Aug 2022

Evelyn Castillo

PhD candidate

Physiological Sciences

University of Florida College of Veterinary Medicine

Project: Periodontal disease in rice rats

*graduated with PhD

Research Mentor

Sep 2014 - Dec 2014

Nicholas Bormann

MD candidate

University of Iowa

Project: Vagal ganglia transcriptome profiling in asthma. Laboratory of Dr. Michael Welsh

*currently a resident in Psychiatry at University of Iowa

^{*}currently a fellow Bristol Meyers Squib

^{*}currently a fellow at UF college of Pharmacy

Research Mentor Summer 2012

Rachel Genova

MD/PhD candidate

Medical Scientist Training Program

University of Iowa

Project: Functional expression of the olfactory signaling pathway in skeletal muscle. Laboratory of Dr. Michael Welsh

*currently a resident in Internal Medicine at University of Iowa

Research Mentor Summer 2011

Jung Min Park

MD/PhD candidate

Medical Scientist Training Program

University of Iowa

Project: Identification of myelin gene transcript abnormalities in cystic fibrosis pigs. Laboratory of Dr. Michael Welsh

*currently a resident in Neurosurgery at Zucker School of Medicine at Hostra/Northwell

Research Mentor Summer 2008

Ashlie Evans

PhD Candidate

University of South Carolina School of Medicine

Project: Investigation of novel antidepressant on amygdalar neurochemistry in stressed rats. Laboratory of Dr. Larry Reagan

*currently a Senior Medical Liason at Amgen

Research Mentor Summer 2007

Isabel Martins

PhD Candidate

Departmento de Biologia Experimental, Faculdade de Medicina

University of Portugal

Project: Brainstem noradrenaline responses in rodent models of pain. Laboratory of Dr. Iim Fadel

*currently an Assistant Professor at the University of Portugal

Undergraduates Primary Advisor

Jan 2024 - present

Shanil Amin Pre medicine

University of Florida

Primary Advisor

June 2021 - May 2022

Victor Moncada Biochemistry

University of Florida

Primary Advisor

May 2021 - present

Amy Fagan Microbiology University of Florida

Primary Advisor

May 2021 - May 2022

Luz Mata

Sociology, pre-medicine University of Florida

Primary Advisor

Aug 2020 - Feb 2023

Angelina Bonilla

Biology

University of Florida

SF2UF mentee

Primary Advisor

Aug 2019 - May 2020

Laura Bravo, B.S.

Chemical Engineering

University of Florida

<u>Honors thesis project (magna cum laude</u>): Neural regulation of mucus secretion and transport in pigs

*currently a food safety and quality associate at General Mills

Primary Advisor

Aug 2019 - May 2020

Maria Maura.

University of Florida MMP Mentor

Primary Advisor

May 2019 - May 2020

Jonai Moore, B.S.

Biology

Bethune-Cookman University, UF SNIP mentee

Senior dissertation project: Neural plasticity in airway disease in mice

*currently a research technician for Fulgent Genetics

Primary Advisor

Nov 2018 - May 2020

Veronica Schurmann, B.S.

Chemical Engineering

University of Florida

*currently a SHEQ Engineer at L'Oreal

Primary Advisor

Jan 2017 - May 2020

Emily Collins, B.S. M.S.

Animal Sciences

University of Florida

Project: Afferent and efferent regulation of airway physiology in mice and pigs *currently an animal technician at NC State

Primary Advisor

Aug 2018 - May 2019

Gianne Miranda

University of Florida MMP Mentor

Primary Advisor

Nov 2017 - May 2019

Maria Guevara, B.S.

Chemical Engineering

University of Florida

<u>Honors Thesis Project (summa cum laude)</u>: Effects of acute airway acidification of mucus transport and lung obstruction in pigs

*currently a PhD candidate at University of Michigan

Primary Advisor

Nov 2017 - May 2018

Kevin Vogt, B.S.

Biochemistry

University of Florida

Project: Effects of airway irritants on airway physiology

*currently a MD candidate at Eastern Virginia Medical School

Primary Advisor

Feb 2017 - Aug 2018

Joshua Dadural, B.S. PharD

International Studies

University of Florida

Project: Effects of sensory nerve perturbation on airway mucus

**performed an independent study in my lab to investigate worldwide initiatives for scientists studying climate change, resulting in 1st author manuscript

*currently at postdoctoral Fellow at Bristol Meyer Squibb

Primary Advisor

June 2017 - Aug 2017

Giselle Edwards, B.S., M.S.

Public Health

Johns Hopkins University

Project: Glutamatergic receptors in asthma.

*currently a Research Assistant at Truth Initiative

Primary Advisor

Nov 2014 - Jan 2015

Christopher Cozzolino, B.S.

College of Liberal Arts & Sciences

University of Iowa

Project: Cloning of porcine mucins. Laboratory of Dr. Michael Welsh

*currently a pharmacist (PharmD) and co-Founder of Uptown Creation

Primary Advisor

Jun 2011 - Jan 2013

Richard Bahner, B.S.

College of Engineering

University of Iowa

Project: Determination of neural innervation defects in cystic fibrosis. Laboratory of Dr. Michael Welsh

*currently a product manager at TikTok

Research Mentor Aug 2004 - Aug 2005

Anita Autry, Ph.D. Honors College

University of South Carolina

Project: Glucocorticoid regulation of glutamate receptors. Laboratory of Dr.

Lawrence Reagan

*currently an Assistant Professor at Albert Einstein College of Medicine

HIGH **Primary Advisor** Aug 2018 - Aug 2005

SCHOOL Taylor Schwab

STUDENTS South Sumter High School, Bushnell, FL.

(1 of 6 shown Project: Sesamol Influence on airway mucus secretion

COMMITTEE, ADMINISTRATIVE SERVICES

due to privacy)

National **Co-Chair** March 2024 - present

Bridging the gap: Extrapulmonary complications not addressed by HEMT? 38th Cystic Fibrosis Conference scheduled to occur in Boston, MA in September. Invited Request.

Co-Chair April 2023 - Nov 2023

What does CFTR do outside of the Lung? 37th Cystic Fibrosis Conference. Phoenix, Arizona. Invited Request.

Co-Chair Dec 2022 - present

American Physiological Society Respiration Section Nominations Committee

Member Aug 2022 - present

American Physiological Society Animal Care and Experimentation Committee

Workshop Chair April 2021 - Nov 2021

Models to Better Understand CF Pathogenesis & Biology. 35th Cystic Fibrosis Conference. Rescheduled from September 2021 in San Antonio, Texas to virtual format in November 2021. Invited Request

Member Iun 2020 - Dec 2022

NIH SPARC Steering Committee: Communications and Outreach *biweekly meetings

Member Dec 2018 - Nov 2020

NIH Early Career Reviewer Program

Member and Abstract Reviewer

Oct 2018 - July 2019

NIH SPARC Steering Committee: Conference Planning

Member Aug 2017 - Aug 2018

NIH SPARC Steering Committee: Map Definition

Regional Judge Feb 2021

Society for Neuroscience Conference

North Central Florida Chapter

Gainesville, FL

Judge Jan 2020

Society for Neuroscience Conference

North Central Florida Chapter

Gainesville, FL

University Faculty Advisor Aug 2022 - Aug 2023

University Rebuilding Together

Undergraduate student organization

University of Florida

Gainesville, FL

Abstract Reviewer April 2022

Center for Integrative Cardiovascular and Metabolic Disease

Early Career Showcase

Basic Science Section

University of Florida

Gainesville. FL

Facilitator April 2022 - May 2022

IACUC improvement committee

University of Florida

Gainesville, FL

Member June 2021 - present

Breathing Research and Therapeutics Center

University of Florida

Gainesville, FL

Panelist Nov 2015

University of Iowa Postdoc Association K Award Workshop

Iowa City, IA

Member July 2006 - July 2007

University of South Carolina Institutional Animal Use and Care Committee

Columbia, SC

College Member Nov 2023- present

Research Advisory Council University of Florida College of Veterinary Medicine Gainesville, FL

Member Nov 2023- present

Chair Search Committee

Department of Infectious Disease and Immunology University of Florida College of Veterinary Medicine Gainesville, FL

Member Sept 2023- Nov 2023

Research Space Policy Task Force

University of Florida College of Veterinary Medicine Gainesville, FL

Judge Feb 2023

Top Dog competition, Class of 2025 Department of Physiological Sciences University of Florida College of Veterinary Medicine

Gainesville, FL

Judge Feb 2023

Top Dog competition, Class of 2026

Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

Class Advisor Aug 2022- present

Class of 2026

University of Florida College of Veterinary Medicine Gainesville, FL

Member July 2022- present

Tenure and Promotions Committee

University of Florida College of Veterinary Medicine Gainesville, FL

Member Sept 2022- Oct 2023

Chair Search Committee

Department of Physiological Sciences

University of Florida College of Veterinary Medicine Gainesville, FL

Judge Feb 2022

Top Dog competition, Class of 2024 Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL Judge Feb 2022

Top Dog competition, Class of 2023 Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

Member April 2022- Dec 2022

Tenure Track Faculty Position Search Committee Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

Member July 2021- present

Fiscal Management Task Force University of Florida College of Veterinary Medicine Gainesville, FL

Member Mar 2021- Aug 2021

LACS Chair Search Committee University of Florida College of Veterinary Medicine Gainesville, FL

Chair Mar 2019 - Jun 2020

Research Committee University of Florida College of Veterinary Medicine Gainesville, FL

Judge Apr 2019

Phi Zeta Research Celebration University of Florida College of Veterinary Medicine Gainesville, FL

Member Oct 2018 - Dec 2019

Physiological Sciences Chair search committee University of Florida College of Veterinary Medicine Gainesville, FL

Member Jul 2018 - Jul 2021

Research Committee University of Florida College of Veterinary Medicine Gainesville, FL

Member Jul 2016 - Jul 2019

Faculty-Student Communications Committee University of Florida College of Veterinary Medicine Gainesville, FL Member Mar 2017 - May 2018

Faculty search committee (Preeminence in regenerative medicine) University of Florida College of Veterinary Medicine Gainesville, FL

Marshal May 2018

Spring Commencement Ceremony University of Florida College of Veterinary Medicine Gainesville, FL

Panelist Apr 2015

Successful Job Search Workshop University of Iowa Graduate College Iowa City, IA

Department and Center

Chair Dec 2022 - present

Strategic Vision for Department Affairs Committee Department of Physiological Sciences University of Florida College of Medicine Gainesville, FL

Member Aug 2022 - present

Graduate Studies Committee Department of Physiological Sciences University of Florida College of Medicine Gainesville, FL

Member June 2022 - present

NeuroGator Scholars Selection Committee McKnight Brain Institute University of Florida College of Medicine Gainesville, FL

Member Sept 2022

Administrative II Support Specialist Committee Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

Member May 2022 - present

Communications Committee Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

Member April 2022 - Aug 2022

Research Track Faculty Position Search Committee Department of Physiological Sciences University of Florida College of Veterinary Medicine Gainesville, FL

July 2019

Summer Neuroscience Internship Program Poster competition Department of Neuroscience University of Florida Gainesville, FL

Member May 2018 - June 2018

Physiological Sciences Administrative Assistant II Search Committee University of Florida Gainesville, FL

Co-Coordinator Aug 2017 - April 2018

Physiological Sciences Seminar Series University of Florida Gainesville, FL

Coordinator Feb 2017 - Mar 2018

Physiological Sciences Blood-borne Pathogen Program University of Florida Department Gainesville, FL

Member Jan 2017 - Dec 2018

Physiological Sciences Betterment Committee University of Florida Gainesville, FL

Member Mar 2017 - Apr 2017

Physiological Sciences Faculty Search Committee University of Florida Gainesville, FL

Judge Mar 2017

Best in Show Research Competition University of Florida Gainesville, FL

Member Mar 2005 - June 2006

Department of Pharmacology, Physiology and Neuroscience Graduate Studies Committee

University of South Carolina

Columbia, SC

Other **Demonstrator** Mar 2023

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Brain Awareness Week Meadowbrook Elementary 1st Grade Gainesville, FL

Host Sep 2019

IMARIS workshop entitled "An introduction to 3D/4D visualization & analysis techniques." Presented by James Shaw, Bitplane Southeast Regional Engineer. University of Florida

Gainesville, FL

Presenter Feb 2018

E-week STEM outreach

University of Florida College of Engineering

Gainesville, FL

Judge Mar 2016

Research Day

University of Iowa Internal Medicine

Iowa City, IA

Group Leader Feb 2014

WISE Girl Scout Badge Day

Pomerantz Center

Iowa City, IA

Judge Feb 2013

Eastern Iowa Science and Engineering Fair. Senior Division

Biological Sciences Subdivision

Cedar Rapids, IA

Judge Mar 2008

USC Region II Science and Engineering Fair

Junior Division

Biological Sciences Subdivision

Columbia, SC

Judge Mar 2007

USC Region II Science and Engineering Fair

Junior and Senior Division, Health and Medicine Subdivision

Columbia, SC

Judge Jan 2007

Hand Middle School Advanced Academic Program

Grades 6-8

Columbia, SC

Participant Oct 2006

Society for Neuroscience Student Focus Group 36th Annual Neuroscience Meeting Invited Request

Judge Mar 2004

USC Region II Science and Engineering Fair

Junior Division

Biological Sciences Subdivision

Columbia, SC

Demonstrator Mar 2001

Roosevelt Elementary School Science Exposition

grades 1-5

Ames, IA

MEMBERSHIPS Associate Feb 2021 - Feb 2022

The Royal Society of Medicine

Member Jan 2020 - Jan 2022

Sigma Xi

Member Jan 2014 - present

The Physiological Society

Member Feb 2018 - Jan 2022

New York Academy of Sciences

Member Jan 2014 - Dec 2023

American Society for Pharmacology and Experimental Therapeutics

Member Jan 2014 - present

American Physiological Society

Member Jan 2014 - present

American Association for the Advancement of Science (AAAS)

Member Mar 2005 - present

Society for Neuroscience

Member Jan 2016 - Jan 2017

American Association of University Women

Member Oct 2006 - Jan 2015

International Society of Psychoneuroendocrinology

Member Aug 2000 - Aug 2002

Women in Science & Engineering

PROFESSIONAL CONSULTING

Expert WitnessBuckley, Seacord, & Justice, PA

Feb 2023 - Dec 2023

Updated 3/21/24