



CURRICULUM VITAE

Robert Wade Siggins II, Ph.D.

Date: 01/16/2026

School: Medicine

Department/Program: Physiology

Current Title: Associate Professor, Research

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Initial Appointment at LSUHSC Date: 09/01/2010

Current Academic Rank: Associate Professor, Research

Date of Appointment to Current Rank: 08/01/2023

Education:

Undergraduate

1995-1999; Bachelor of Arts in History and Bachelor of Science in Biological Sciences, Molecular Biology Emphasis, Chemistry Minor, University of Southern Mississippi, Hattiesburg, MS

Graduate/medical

2002-2006; Doctor of Philosophy in Physiology Louisiana State University Health Sciences Center, New Orleans, LA

Post-doctoral fellowships

2006-2007; Cardiovascular Research Center, New York Medical College, Valhalla, NY

2007-2010; Comprehensive Alcohol Research Center, Department of Physiology Louisiana State University Health Sciences Center, New Orleans, LA

Academic, Professional, and Research Appointments:

2023-present **Associate Professor-Research Track**, Department of Physiology, Louisiana State University Health Sciences Center, New Orleans, LA

2016-2023 **Assistant Professor-Research Track**, Department of Physiology, Louisiana State University Health Sciences Center, New Orleans, LA

2013-2016 **Assistant Professor-Tenure Track**, Department of Physiology, Louisiana State University Health Sciences Center, New Orleans, LA

2010-2013 **Instructor**, Department of Physiology, Louisiana State University Health Sciences Center, New Orleans, LA

Awards and Honors:

2010	Junior Investigator Award, Research Society on Alcoholism
2009	Junior Investigator Award, Research Society on Alcoholism
2009	Travel Award, RSA/ISBRA Satellite Meeting
2009	Travel Award, Alcohol and Immunology Research Interest Group Meeting
2008	American Federation for Medical Research, SAFMR SSCI Trainee Award
1999	Magna Cum Laude, University of Southern Mississippi
1998-1999	President's List
1995-1998	Dean's List
1995-1999	Sam E Woods Presidential Scholar, University of Southern Mississippi

TEACHING EXPERIENCE AND RESPONSIBILITIES

Teaching is a major activity in the Department of Physiology, which conducts courses across all the schools at LSUHSC-NO. As a physiologist by training, I am capable of teaching all aspects of physiology to multiple audiences. My teaching activities range from basic physiology for the dental hygiene and nursing programs, to more advanced physiology for the Doctor of Dental Surgery and Medical Students. Being a Full Member of the Graduate Faculty, I also lecture on a variety of subjects including cell biology and experimental methods for graduate students. One course, for which I serve as course director is Perspectives on Alcohol Research (PAR; PHYSIO289). This course is an integral component for the Biomedical Alcohol Research Training Program (T32 AA07577), and it serves as a primary training component for conveying general knowledge regarding alcohol research that all researchers in this field should have, but don't necessarily receive in their specialized laboratory environment. Additionally, this course bridges the two important aspects of teaching: didactic lecture and mentoring. Apart from didactic coursework, I have also mentored or co-mentored trainees across the entire educational gamut from high school students to postdoctoral fellows.

Course/Clerkship/Residency or Fellowship/CME Directorships

2023-present: Course Co-director, PHYSIO 110 Experimental Design & Analysis

2016-present: Course Co-director, DENT 1115 Human physiology for dental students

2015-present: Course Director, PHYSIO 289 Perspectives on Alcohol Research

2015-2017: Course Director, DHY 3202 General and Oral Physiology for Dental Hygiene

2014: Course Director, PHYSIO 289 Modern Breakthroughs in Biomedical Research

2012-2023: Section Director for Gastrointestinal Physiology, PHTH 7120 Physiological sciences/Biological systems

2012-2013: Course Co-director, HLSC 3410 Nursing Pathophysiology

Revised: August 2024

Formal Course Responsibilities

2023-present: Lecturer, PHYSIO 110 Experimental Design & Analysis (8 contact hours / Spring semester)

2021-present: Lecturer, INTER200 Professionalism in Science (1 contact hour / year)

2018-present: Lecturer, PHYSIO 100 Medical Physiology (10 contact hours / Spring semester)

2018-present: Lecturer, MCLIN 237 Disease and Therapy of the Gastrointestinal System (1.5 contact hours / Spring semester)

2018-present: Lecturer, INTER 122 Cell and Molecular Biology (2.5 contact hours / year)

2015-present: Lecturer, DENT 1115 Human physiology for dental students (10-20 contact hours / Spring semester)

2012-present: Lecturer, PHTH 7120 Physiological sciences/Biological systems (14 contact hours / Spring semester)

2011-present: Lecturer, HLSC 3410 Nursing Pathophysiology (2-6 contact hours / Fall and Spring semester)

2010-present: Lecturer, DHY 3202 General and Oral Physiology for Dental Hygiene (2-32 contact hours / Spring semester)

2008-present: Lecturer, PHYSIO 289 Perspectives on Alcohol Research (32 contact hours / Fall and Spring semesters)

2008: Lecturer, PHYSIO 212 Cardiovascular Physiology (2 contact hours / Fall semester)

2008: Lecturer, Theory and Application of Cutting-edge Technology for Biomedical Research (3 contact hours / Summer semester)

2004-present: Lecturer, HLSC 2410 Nursing Physiology (2-8 contact hours / Fall and Spring semester)

Departmental/Interdisciplinary Teaching Conferences

2019: Course director, Physiology journal club (16 contact hours / Spring semester)

2008: Invited Moderator, Extremes in Physiology (2 contact hours / Summer semester)

Undergraduate, Medical, or Graduate Student Research Projects:

2021: Nabil Esajee, Medical Student

2019: Shekinah Hernandez, PREP Scholar

2019: Johnathan Cuccia, BS Bioengineering/Medical Student

2019: Steven Do, Medical Student

2016: Longsha Liu, High School 2015-2017: Domonique Smith, Masters Candidate

2015: Joseph Bradford, Jr., Undergraduate

2014: Daniel Martinez, Ph.D. Candidate; Linda Li, High School

2012-2013: Garland Michael Upchurch, M.D./Ph.D. Candidate

2012: Jennifer Ramsey, Ph.D. Candidate

Thesis, Clinical Doctoral Projects, and/or Dissertation Committees:

2025-present Clay Jacobs, MD/PhD

2022-2025: Joshua Edavettal, Physiology, MD/PhD

2022-2025: Kourtney Weaver, Physiology, MD/PhD

2020-2025: Justin Smith, Microbiology, Immunology, and Parasitology, PhD

2021-2024: Brianna Bourgeois, Physiology, MD/PhD

2019-2023: Jonquil Poret (Physiology, PhD); Caleb Ardizzone (MIP, PhD)

2019-2021: Krystal Belmonte, Physiology, PhD

2018-2018: Kyle Meredith, Pharmacology, Masters

2017-2018: Katie Adler, Physiology, Masters

2016-2018: Rafiq Nabi (MIP, PhD); Domonique Smith (Physiology, Masters)

2015-2018: Matthew Dean (Genetics, PhD); Alan Mouton (Physiology, PhD)

2014-2017: Stephen Ford, Physiology, MD/PhD

RESEARCH AND SCHOLARSHIP

Grants and Contracts:

Funded

K99AA020312 (NIH/NIAAA). Alcohol-induced Osteoimmunopathies: A Unifying Explanatory Mechanism. 03/01/2011–08/31/2013. Role: Principal Investigator (PI). Total Direct Costs: \$221,496.

K99AA020312 Supplement (NIH/NIAAA). Necessary equipment supplement. 07/26/2012. Role: PI. Total Direct Costs: \$27,850.

R00AA020312 (NIH/NIAAA). Alcohol-induced Osteoimmunopathies: A Unifying Explanatory Mechanism. 09/01/2013–08/31/2017. Role: PI. Total Direct Costs: \$518,697.

P60AA009803 (NIH/NIAAA). LSUHSC-NO Comprehensive Alcohol-HIV/AIDS Research Center. 12/01/2014–11/30/2019. Roles: Co-Investigator (RC3); Co-director (Analytical Core). Direct Costs: \$1,800,000.

Pilot Grant (Alcohol and Drug Abuse Center of Excellence, LSUHSC-NO). Molecular Mechanisms Underlying Ethanol Stimulated B Cell Differentiation in Alcoholic Liver Disease. 06/01/2015–05/31/2016. Role: Co-PI. Budget: \$15,000.

UH2AA026226 (NIH/NIAAA). Precision Medicine Approaches for Alcohol- and HIV-Associated Dysbiosis, Immune Activation, and Cardiometabolic Syndrome. 09/15/2017–08/31/2019. Role: Co-Investigator (Co-I). Total Direct Costs: \$200,750.

U54GM104940 (LA CaTS Pilot Grant). Alcohol Use in People Living with HIV: Impact on Mitochondrial DNA Damage and T-cell Immunosenescence. 12/04/2018–06/30/2020. Role: PI. Budget: \$50,000.

R21AA027199 (NIH/NIAAA). Alcohol-induced Dysbiosis and HIV-associated Pneumonia. 09/01/2019–08/31/2021. Role: Co-I. Direct Costs: \$211,313.

Medical Research Pilot Grant (The Charles and Elizabeth Wetmore Fund). Chronic Suppurative Bronchiectasis, Microbiota-Host Interactions, and Precocious Aging. 07/01/2022–06/30/2023. Role: Co-I. Direct Costs: \$75,000.

P60AA009803 (NIH/NIAAA). LSUHSC-NO Comprehensive Alcohol-HIV/AIDS Research Center. 12/01/2025–11/30/2030. Roles: Co-I (RC4, Analytical Core, & ID Core); Co-associate Director (Analytical Core). Direct Costs: \$1,500,000.

LSUHSC School of Medicine Research Enhancement Program. Alcohol Dysbiosis, Immune Exhaustion & Senescence, Immune Checkpoint Inhibitors, and Colorectal Carcinoma. 08/01/2025–07/31/2026. Roles: Co-I. Direct Costs: \$75,000

R01AA032764 (NIH/NIAAA). Geroprotective Precision Medicine Strategies in PWH that Use Alcohol. 09/25/2025–08/31/2030. Role: MPI. Direct Cost: \$450,502

LSUHSC School of Medicine Research Enhancement Program. Myeloid Sulf expression regulates bone marrow hematopoiesis. 12/16/2025–12/15/2026. Roles: Co-I. Direct Costs: \$67,392

Recent non-funded applications

R01HL181241 (NIH/NHLBI). Myeloid Sulf expression regulates multilineage hematopoiesis. 07/01/2024–06/30/2029. Role: Co-I. Direct Costs: \$598,755

LSU-OLOL-2024-01 (Our Lady of the Lake). The Gut – Lung Axis and Non-Specific Interstitial Pneumonia Severity and Response to Therapy. 08/01/2025–07/31/2026. Role-Co-I. Direct Costs: \$100,000

R33AT013371-01 (NIH/NCCIH). Senoprotective Precision Probiotics Strategies. 08/01/2025–07/31/2026. Role: MPI. Direct Costs: \$350,000

R01DK144949 (NIH/NIDDK). Cardiometabolic risk among people with HIV: role of immune activation and skeletal muscle oxidative metabolism. 07/01/2025–06/30/2030. Role: Co-I. Direct Costs: \$499,999

R21DA065076 (NIH/NIDDK). Cannabis Use and HIV: impact on T cell immunometabolism and immunosenescence. 12/01/2025–11/30/27. Role: Co-I. Total Cost: \$412,500

Major Area of Research Interest:

My research focuses on alcohol-induced immune dysfunction and accelerated immune aging, with emphasis on CD8+ T-cell senescence, mitochondrial immunometabolism, and microbiota-driven systemic inflammation. A major theme of my work is

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understanding how alcohol exposure interacts with HIV-related comorbidities (frailty, chronic inflammation, and impaired host defense) and developing translational models to identify actionable therapeutic targets. More recently, I have expanded these efforts into alcohol-related cancer biology, including pilot work evaluating how alcohol-associated dysbiosis and immune exhaustion/senescence may modify responses to immune checkpoint inhibitor therapy in colorectal carcinoma.

Journal Publications:

Refereed

Published:

1. Bearzi C, Rota M, Hosoda T, Tillmanns J, Nascimbene A, DeAngelis A, Yasuzawa-Amano S, Trofimova I, **Siggins RW**, LeCapitaine N, Cascapera S, Beltrami AP, D'Alessandro DA, Zias E, Quaini F, Urbanek K, Michler RE, Bolli R, Kajstura J, Leri A, Anversa P. Human cardiac stem cells. *Proceedings of the National Academy of Sciences*. 2007;104(35):14068-14073. doi:10.1073/pnas.0706760104. PMID:17709737. IF: 9.1
2. Tillmanns J, Rota M, Hosoda T, Misao Y, Esposito G, Gonzalez A, Vitale S, Parolin C, Yasuzawa-Amano S, Muraski J, De Angelis A, LeCapitaine N, **Siggins RW**, Loredi M, Bearzi C, Bolli R, Urbanek K, Leri A, Kajstura J, Anversa P. Formation of large coronary arteries by cardiac progenitor cells. *Proceedings of the National Academy of Sciences*. 2008;105(5):1668-1673. doi:10.1073/pnas.0706315105. PMID:18216245. IF: 9.1
3. **Siggins RW**, Zhang P, Welsh DA, LeCapitaine NJ, Nelson S. Stem cells, phenotypic inversion, and differentiation. *International Journal of Clinical and Experimental Medicine*. 2008;1(1):2-21. PMID:19079683. IF: (No JCR Impact Factor)
4. Zhang P, Nelson S, Bagby GJ, **Siggins RW**, Shellito JE, Welsh DA. The lineage- c-kit+ Sca-1+ cell response to *Escherichia coli* bacteremia in Balb/c mice. *Stem Cells*. 2008;26(7):1778-1786. doi:10.1634/stemcells.2007-1027. PMID:18483422. IF: 3.6
5. Zhang P, Welsh DA, **Siggins RW**, Bagby GJ, Raasch CE, Happel KI, Nelson S. Acute alcohol intoxication inhibits the lineage- c-kit+ Sca-1+ cell response to *Escherichia coli* bacteremia. *Journal of Immunology*. 2009;182(3):1568-1576. doi:10.4049/jimmunol.182.3.1568. PMID:19155505. IF: 3.4
6. **Siggins RW**, Bagby GJ, Molina PE, Dufour J, Nelson S, Zhang P. Alcohol exposure impairs myeloid dendritic cell function in rhesus macaques. *Alcoholism: Clinical and Experimental Research*. 2009;33(9):1524-1531. doi:10.1111/j.1530-0277.2009.00980.x. PMID:19485975. IF: 3.2
7. Raasch CE, Zhang P, **Siggins RW**, LaMotte L, Bagby GJ, Nelson S. Acute Alcohol Intoxication Impairs the Hematopoietic Precursor Cell Response to Pneumococcal Pneumonia. *Alcoholism: Clinical and Experimental Research*. 2010;34(12):2035-2043. doi:10.1111/j.1530-0277.2010.01291.x. PMID:20659065. IF: 3.2
8. **Siggins RW**, Melvan JN, Welsh DA, Bagby GJ, Nelson S, Zhang P. Alcohol Suppresses the Granulopoietic Response to Pulmonary *Streptococcus pneumoniae* Infection with Enhancement of STAT3 Signaling. *Journal of Immunology*. 2011;186(7):4306-4313. doi:10.4049/jimmunol.1002885. PMID:21357267. IF: 3.4
9. Melvan JN, **Siggins RW**, Bagby GJ, Stanford WL, Welsh DA, Nelson S, Zhang P. Suppression of Stem Cell Antigen-1 Response and Granulocyte Lineage Expansion by Alcohol During Septicemia. *Critical Care Medicine*. 2011;39(9):2121-2130. doi:10.1097/CCM.0b013e31821e89dc. PMID:21602669. IF: 6.0
10. Melvan JN, **Siggins RW**, Stanford WL, Porretta C, Nelson S, Bagby GJ, Zhang P. Alcohol Impairs the Myeloid Proliferative Response to Bacteremia in Mice by

- Inhibiting the Stem Cell Antigen-1/ERK Pathway. *Journal of Immunology*. 2012;188(4):1961-1969. doi:10.4049/jimmunol.1102395. PMID:22238460. IF: 3.4
11. Shi X, **Siggins RW**, Stanford WL, Melvan JN, Basson MD, Zhang P. Toll-Like Receptor 4/Stem Cell Antigen-1 Signaling Promotes Hematopoietic Precursor Cell Commitment to Granulocyte Development during the Granulopoietic Response to *E. coli* Bacteremia. *Infection and Immunity*. 2013;81(6):2197-2205. doi:10.1128/IAI.01280-12. PMID:23545304. IF: 2.8
 12. **Siggins RW**, Hossain F, Rehman T, Melvan JN, Zhang P, Welsh DA. Cigarette smoke alters the hematopoietic stem cell niche. *Medical Sciences*. 2014;2(1):37-50. doi:10.3390/medsci2010037. PMID:28868162. IF: (No JCR Impact Factor)
 13. **Siggins RW**, Molina P, Zhang P, Bagby GJ, Nelson S, Dufour J, LeCapitaine NJ, Walsh C, Welsh DA. Dysregulation of Myelopoiesis by Chronic Alcohol Administration during Early SIV Infection of Rhesus Macaques. *Alcoholism: Clinical and Experimental Research*. 2014;38(7):1993-2000. doi:10.1111/acer.12433. PMID:24942272. IF: 3.2
 14. Bagby GJ, Amedee AM, **Siggins RW**, Molina PE, Nelson S, Veazey R. Alcohol and HIV Effects on the Immune System. *Alcohol Research: Current Reviews*. 2015;37(2):287-297. PMID:26695751. IF: (No JCR Impact Factor)
 15. Souza-Smith F, **Siggins RW**, Molina PE. Mesenteric lymphatic-perilymphatic adipose crosstalk; role in alcohol-induced perilymphatic adipose tissue inflammation. *Alcoholism: Clinical and Experimental Research*. 2015;39(8):1380-1387. doi:10.1111/acer.12796. PMID:26147204. IF: 3.2
 16. Katz PS*, **Siggins RW***, Porretta C, Armstrong ML, Zea AH, Mercante DE, Parsons C, Veazey RS, Bagby GJ, Nelson S, Molina PE, Welsh DA. Chronic alcohol increases CD8+ T-cell immunosenescence in simian immunodeficiency virus-infected rhesus macaques. *Alcohol*. 2015;49(8):759-765. doi:10.1016/j.alcohol.2015.09.003. PMID:26603633. IF: 2.9
 17. Simon L, **Siggins RW**, Winsauer P, Brashear M, Ferguson T, Mercante D, Song K, Vande Stouwe C, Nelson S, Bagby G, Amedee A, Molina PE. Simian Immunodeficiency Virus Infection Increases Blood Ethanol Concentration Duration After Both Acute and Chronic Administration. *AIDS Research and Human Retroviruses*. 2018;34(2):178-184. doi:10.1089/AID.2017.0195. PMID:29037050. IF: 1.1
 18. Duplanty AA, **Siggins RW**, Allerton T, Simon L, Molina PE. Myoblast mitochondrial respiration is decreased in chronic binge alcohol administered simian immunodeficiency virus-infected antiretroviral-treated rhesus macaques. *Physiological Reports*. 2018;6(5). doi:10.14814/phy2.13625. PMID:29504290. IF: 1.9
 19. Welsh DA, Ferguson T, Theall KP, Simon L, Amedee A, **Siggins RW**, Nelson S, Brashear M, Mercante D, Molina PE. The New Orleans Alcohol Use in HIV Study: Launching a Translational Investigation of the Interaction of Alcohol Use with Biological and Socioenvironmental Risk Factors for Multimorbidity in People Living with HIV. *Alcoholism: Clinical and Experimental Research*. 2019;43(4):704-709. doi:10.1111/acer.13980. PMID:30748025. IF: 3.2
 20. Souza-Smith FM, Simon L, **Siggins RW**, Molina PE. Alcohol-Induced Mesenteric Lymphatic Permeability: Link to Immunometabolic Modulation of Perilymphatic Adipose Tissue. *International Journal of Molecular Sciences*. 2019;20(17):E4097. doi:10.3390/ijms20174097. PMID:31443389. IF: 4.9
 21. Samuelson DR, **Siggins RW**, Ruan S, Amedee AM, Sun J, Zhu QK, Marasco WA, Taylor CM, Luo M, Welsh DA, Shellito JE. Alcohol consumption increase susceptibility to pneumococcal pneumonia in a humanized murine HIV model

- mediated by intestinal dysbiosis. *Alcohol*. 2019;80:33-43. doi:10.1016/j.alcohol.2018.08.012. PMID:30213614. IF: 2.9
22. Maffei VJ, Ferguson TF, Brashear MM, Mercante DE, Theall KP, **Siggins RW**, Taylor CM, Molina P, Welsh DA. Lifetime alcohol use among persons living with HIV is associated with frailty. *AIDS*. 2020;34(2):245-254. doi:10.1097/QAD.0000000000002426. PMID:31714352. IF: 3.1
 23. Mouton AJ, El Hajj EC, Ninh VK, **Siggins RW**, Gardner JD. Inflammatory cardiac fibroblast phenotype underlies chronic alcohol-induced cardiac atrophy and dysfunction. *Life Sciences*. 2020;245:117330. doi:10.1016/j.lfs.2020.117330. PMID:31962130. IF: 5.1
 24. Ferguson TF, Theall KP, Brashear M, Maffei VJ, Beauchamp A, **Siggins RW**, Simon L, Mercante D, Nelson S, Welsh DA, Molina PE. Comprehensive Assessment of Alcohol Consumption in People Living with HIV (PLWH): The New Orleans Alcohol Use in HIV Study. *Alcoholism: Clinical and Experimental Research*. 2020;44(6):1261-1272. doi:10.1111/acer.14336. PMID:32441814. IF: 3.2
 25. Maffei VJ, **Siggins RW**, Luo M, Brashear MM, Mercante DE, Taylor CM, Molina P, Welsh DA. Alcohol Use Is Associated with Intestinal Dysbiosis and Dysfunctional CD8+ T-Cell Phenotypes in Persons with HIV. *Journal of Infectious Diseases*. 2020;223(6):1029-1039. doi:10.1093/infdis/jiaa461. PMID:32725203. IF: 4.5
 26. Gu M, Samuelson DR, Taylor CM, Molina PE, Luo M, **Siggins RW**, Shellito JE, Welsh DA. Alcohol-associated intestinal dysbiosis alters mucosal-associated invariant T-cell phenotype and function. *Alcoholism: Clinical and Experimental Research*. 2021;45(5):934-947. doi:10.1111/acer.14589. PMID:33704802. IF: 3.2
 27. McTernan PM, Katz PS, Porretta C, Welsh DA, **Siggins RW**. A Novel FACS-Based Workflow for Simultaneous Assessment of RedOx Status, Cellular Phenotype, and Mitochondrial Genome Stability. *BioChem*. 2021;1(1):1-18. doi:10.3390/biochem1010001. PMID:35937039. IF: (No JCR Impact Factor)
 28. Gu M, Samuelson DR, de la Rua NM, Charles TP, Taylor CM, Luo M, **Siggins RW**, Shellito JE, Welsh DA. Host innate and adaptive immunity shapes the gut microbiota biogeography. *Microbiology and Immunology*. 2022;66(6):330-341. doi:10.1111/1348-0421.12963. PMID:35067963. IF: 1.8
 29. Zifodya JS, Ferguson TF, **Siggins RW**, Brashear MM, Kantrow SP, Nelson S, Shellito JE, Molina PE, Welsh DA. Cross sectional analysis of the effect of alcohol on pulmonary function in a cohort of men and women living with HIV. *Alcohol*. 2022;101:45-51. doi:10.1016/j.alcohol.2022.03.001. PMID:35306109. IF: 2.9
 30. McTernan PM, Levitt DE, Welsh DA, Simon L, **Siggins RW**, Molina PE. Alcohol Impairs Immunometabolism and Promotes Naïve T Cell Differentiation to Pro-Inflammatory Th1 CD4+ T Cells. *Frontiers in Immunology*. 2022;13:839390. doi:10.3389/fimmu.2022.839390. PMID:35634279. IF: 5.9
 31. McTernan PM, **Siggins RW**, Catinis A, Amedee AM, Simon L, Molina PE. Chronic Binge Alcohol and Ovarian Hormone Loss Dysregulate Circulating Immune Cell SIV Co-Receptor Expression and Mitochondrial Homeostasis in SIV-Infected Rhesus Macaques. *Biomolecules*. 2022;12(7):946. doi:10.3390/biom12070946. PMID:35883501. IF: 4.8
 32. Levitt DE, Simon L, Lin HY, **Siggins RW**, Ferguson TF, Molina PE, Welsh DA. Alcohol Use, Physical Activity, and Muscle Strength Moderate the Relationship Between Body Composition and Frailty Risk Among People Living with HIV. *Alcoholism: Clinical and Experimental Research*. 2022;46(11):2041-2053. doi:10.1111/acer.14941. PMID:36124866. IF: 3.2
 33. **Siggins RW**, McTernan PM, Simon L, Souza-Smith FM, Molina PE. Mitochondrial Dysfunction: At the Nexus between Alcohol-Associated Immunometabolic

- Dysregulation and Tissue Injury. *International Journal of Molecular Sciences*. 2023;24(10):8650. doi:10.3390/ijms24108650. PMID:37239997. IF: 4.9
34. Shi X, Simms KJ, Ewing TJ, Lin YP, Chen YL, Melvan JN, **Siggins RW**, Zhang P. The Bone Marrow Endothelial Progenitor Cell Response to Septic Infection. *Frontiers in Immunology*. 2024;15:1368099. doi:10.3389/fimmu.2024.1368099. PMID:38665923. IF: 5.9
 35. Whitehead AK, Wang Z, Boustany R, Vives RR, Lazartigues E, Liu J, **Siggins RW**, Yue X. Myeloid deficiency of heparan sulfate 6-O-endosulfatases impairs bone marrow hematopoiesis. *Matrix Biology*. 2024;134:107-118. doi:10.1016/j.matbio.2024.10.002. PMID:39368561. IF: 4.8
 36. Deville P, Dennis J, Warren O, Fontenot C, Messa G, Carter JE, Phelan HA, Schoen J, Hobden JA, **Siggins RW**, McTernan PM, Molina PE, Smith AA. A Pilot Study on the Impact of Smoking on Adipose Derived Stem Cell Function in Burn Patients. *Journal of Burn Care & Research*. 2025;iraf005. doi:10.1093/jbcr/iraf005. PMID:39820680. IF: 1.8
 37. Harrison-Bernard LM, Edwards S, **Siggins RW**, Primeaux SD. Effectiveness of an Experimental Design and Analysis Course for First-Year Medical Students. *Med Sci Educ*. 2025;35(4):2001-2010. doi: 10.1007/s40670-025-02401-z. PMID: 41112876. Impact Factor: 1.8.
 38. Zaparte A, Lammons JW, Taylor CM, Luo M, Lin HY, **Siggins RW**, Molina PE, Welsh DA. Sex specific gut bacterial community structure: implications for frailty risk in people with HIV. *GeroScience*. 2025 Oct 16. doi:10.1007/s11357-025-01923-z. Online ahead of print. PMID:41102477. IF: 5.4

H-Index/indices:

1. Google Scholar: 23, accessed 01/16/2026
2. Scopus: 20, accessed 01/16/2026.

Book Chapters:

1. **Siggins RW** and Hornick CA. Endothelial Cell Responses to Physiological and Pathophysiological Environments. In: Anti-Angiogenic Functional and Medicinal Foods. Lasso J, Bagchi D, Shahidi F, eds. CRC Press, 2007:349–364.
2. Leri A, Boni A, **Siggins RW**, Nascimbene A, Hosoda T. Cardiac Stem Cells and Their Niches. In: Cardiac Regeneration and Stem Cell Therapy. Leri A, Anversa P, Frishman W, eds. Blackwell Publishing, 2007:87–94. (Bold face your own name; chronological order, oldest first)
3. **Siggins, RW** and Welsh, DA. (2026) 'Alcohol and respiratory physiology', in Molina, P.E., Edwards, S. and Simon, L. (eds.) Pathophysiological Consequences of Alcohol. Elsevier, pp. 101–115. <https://doi.org/10.1016/B978-0-443-34258-5.00007-4>
4. Souza-Smith, FM and **Siggins, RW**. (2026) 'Alcohol and gastrointestinal physiology', in Molina, P.E., Edwards, S. and Simon, L. (eds.) Pathophysiological Consequences of Alcohol. Elsevier, pp. 121–132. <https://doi.org/10.1016/B978-0-443-34258-5.00011-6>

Scientific Presentations/Published Abstracts/Oral Sessions and Posters:

Published Abstracts/Proceedings

Regional

1. **Siggins RW**, Welsh DA, Nelson S, Bagby GJ, Shellito JE, Zhang P. The Hematopoietic Stem Cell Response to Gram Negative Bacteremia. The Southern Regional Meeting of the SSCI, 02/2008; Oral Presentation.

Scientific Presentations
Oral Sessions

Regional

1. **Siggins RW**, Welsh DA, Nelson S, Bagby GJ, Shellito JE, Zhang P. The Hematopoietic Stem Cell Response to Gram Negative Bacteremia. The Southern Regional Meeting of the SSCI, 02/2008; Oral Presentation.

National

1. **Siggins RW**, Welsh DA, Bagby GJ, Nelson S, Zhang P. Acute alcohol intoxication inhibits the bone marrow lin-c-kit+Sca-1+VEGFR2+ cell response to septicemia. Alcohol and Immunology Research Interest Group Meeting, 11/2009; Oral Presentation.
2. **Siggins RW**, Melvan JN, Bagby GJ, Nelson S, Zhang P. Alcohol Abuse and the Impairment of Hematopoiesis. Research Society on Alcoholism, 06/2010; Oral Presentation.
3. **Siggins RW**, Welsh DA, Bagby GJ, Nelson S, Zhang P, Molina PE. Promotor Methylation in Hematopoietic Progenitor Cells; Alcohol-induced Dysregulated Differentiation. Research Society on Alcoholism, 06/2012; Oral Presentation.
4. **Siggins RW**. Alcohol interference with the continuum; From proliferation to senescence. Gordon Research Conference Alcohol-Induced End Organ Diseases: Redundant Mechanisms of Multi-Organ Injury, 03/2025; Invited Oral Presentation.

Poster

1. *National*
Siggins RW, Nelson S, Welsh DA, Bagby GJ, Shellito JE, Zhang P. Alcohol Inhibits the Hematopoietic Stem Cell Response to Bacteremia. Research Society on Alcoholism, 06/2008; Poster Presentation.
2. **Siggins RW**, Nelson S, Bagby GJ, Shellito JE, Dufour J, Welsh DA, Zhang P. The Effects of Alcohol on Myeloid Dendritic Cell Function in Rhesus Macaques. Society of Leukocyte Biology, 11/2008; Poster Presentation.
3. **Siggins RW**, Welsh DA, Bagby GJ, Raasch CE, Happel KI, Nelson S, Zhang P. Acute Alcohol Intoxication Inhibits the Hematopoietic Precursor Cell Response to *Escherichia coli* Bacteremia. Experimental Biology, 04/2009; Poster Presentation.
4. **Siggins RW**, Melvan JN, Bagby GJ, Welsh DA, Nelson S, Zhang P. Alcohol Inhibits Expression of Granulopoietic Transcription Factors in Hematopoietic Precursor Cells Following Bacteremia. Research Society on Alcoholism, 06/2009; Poster Presentation.
5. **Siggins RW**, Welsh DA, Bagby GJ, Nelson S, Zhang P. The Bone Marrow Lin-C-kit+Sca-1+VEGFR2+ Cell Response to Septicemia. American Thoracic Society International Conference, 05/2010; Poster Presentation.
6. **Siggins RW**, Welsh DA, Bagby GJ, Nelson S, Zhang P. Acute Alcohol Intoxication Inhibits the Bone Marrow Lin-c-kit+Sca-1+VEGFR2+ Cell Response to *E. coli* Bacteremia. Research Society on Alcoholism, 06/2010; Poster Presentation.
7. **Siggins RW**, Molina PE, Nelson S, Bagby GJ, Kolls JK, Welsh DA, Zhang P. Alcohol Enhances Osteoclastogenesis and Inhibits Dendropoiesis. Alcohol and Immunology Research Interest Group Meeting, 11/2010; Poster Presentation.
8. **Siggins RW**, Molina PE, Bagby GJ, Nelson S, Kolls JK, Welsh DA, Zhang P. Alcohol Enhances Osteoclastogenesis and Inhibits Dendropoiesis from a Common Upstream Progenitor. Research Society on Alcoholism, 06/2011; Poster Presentation.

9. **Siggins RW**, Piet V, Amedee A, Bagby GJ, Nelson S, Welsh DA, Molina PE. Differential Effects of Alcohol Exposure and SIV Proteins on Mesenchymal Stem Cell Adipo- and Osteogenesis. Research Society on Alcoholism, 06/2012; Poster Presentation.
10. **Siggins RW**, Welsh DA, Zhang P, Molina PE, Bagby GJ, Nelson S, Porretta C. Dysregulation of Myelopoiesis by Chronic Alcohol Administration during Early SIV Infection in Rhesus Macaques. Research Society on Alcoholism, 06/2014; Poster Presentation.
11. **Siggins RW**, Katz PS, Porretta CP, Welsh DA. Chronic Binge Alcohol Decreases Mesenchymal Stem Cell Protective Capacity for Reactive Oxygen Species. Research Society on Alcoholism, 06/2015; Poster Presentation.
12. **Siggins RW**, Ferguson TF, Porretta CP, Molina PE, Welsh DA. Alcohol Consumption Differentially Affects CD8+ T cell Phenotypes in People Living With HIV/AIDS (PLWHA) that is Dependent on Viral Suppression. Research Society on Alcoholism, 06/2017; Poster Presentation.
13. **Siggins RW**, Maffei VJ, Ferguson TF, Porretta CP, Taylor CM, Molina PE, Welsh DA. Alcohol Use Positively Correlates with CD8+ T-cell Exhaustion in People Living with HIV. Research Society on Alcoholism, 06/2018; Poster Presentation.
14. **Siggins RW**, Maffei VJ, Ferguson TF, Porretta CP, Molina PE, Welsh DA. Alcohol Use and Markers of Gut Leak Positively Associate with CD8+ T Cell Exhaustion and Senescence in Persons Living with HIV. Research Society on Alcoholism, 06/2019; Poster Presentation.
15. **Siggins RW**, Lin H, Samuelson DR, Porretta CP, McTernan PM, Molina PE, Welsh DA. High Audit Scores in Persons Living with HIV Lead to Increased Senescent CD8+ T Cells and Greater Expression of Senescence-associated Secretory Phenotype Proteins. Research Society on Alcoholism, 06/2021; Poster Presentation.
16. **Siggins RW**, Lin H, Ferguson T, Welsh DA, Simon L, Molina PE. Relationship of Composite Inflammatory Score with Metabolic Homeostasis Measures in PLWH Enrolled in the New Orleans Alcohol Use and HIV (NOAH) Study. Research Society on Alcoholism, 06/2022; Poster Presentation.

Invited Presentations:

1. **Siggins RW**. Alcohol interference with the continuum; From proliferation to senescence. Gordon Research Conference: Alcohol-Induced End Organ Diseases (Redundant Mechanisms of Multi-Organ Injury). 03/2025. Invited Oral Presentation.
2. **Siggins RW**. PCR and RT-qPCR Molecular Biology. Institute of Neuroimmune Pharmacology, Seton Hall University. 02/2011. Invited Lecture.
3. **Siggins RW**. Mechanisms of Alcohol Disrupted Myelopoiesis. Alcohol Research Group, Stritch School of Medicine, Loyola University. 05/2013. Invited Seminar.
4. **Siggins RW**. Mitohormesis and RedOx Status in T Lymphocytes: Implications for Aging and Inflammation. North America eBiosciences Sales Team Meeting. 08/2015. Invited Seminar.
5. **Siggins RW**. Alcohol & T Cell Immunosenescence. Tulane (Department of Microbiology & Immunology) Envision the Future Seminar Series. 09/2021. Invited Seminar.

Videos, Electronic Media, and Multimedia:

1. **Siggins RW.** Television interview—Health impacts of acute alcohol toxicity in the context of LSU hazing-related alcohol poisoning (Maxwell Gruver case). WDSU-TV (New Orleans, LA). 09/2017.
2. **Siggins RW.** Live television interview—Sleep deprivation and weight gain: hormonal regulation of appetite and metabolism (ghrelin/leptin). FOX 8 WVUE-TV (New Orleans, LA); Liz Reyes. 03/19/2024. URL: https://www.fox8live.com/video/2024/03/19/how-poor-sleep-impacts-two-key-hormones/?fbclid=IwAR0PQwTVQIZor4F86-2ZkL9gh301Z73FOu9HJ3ezLWX8xRJDx737qa7Shs4_aem_AWHGH7Z6U3IC8Q7UchxCsxO3ZuRVmo1Ax9gRaK9z_9qk02yHmJbxH93Elj6HxwNlvehB0ZQTvV6JJcTHBNHfuGq1

Grant Reviewer:

2015 LSUHSC-NO Clinical Research Grants Review Committee.

2017 LSUHSC-NO Internal Grant Review Committee.

2023 LSUHSC-NO Ad hoc reviewer for REF and Bridge grants.

2024 LSUHSC-NO Ad hoc reviewer for REF and Bridge grants.

2024 University of Nebraska Medical Center, Alcohol Center of Research-Nebraska (ACORN). External reviewer for Pilot Grants.

2025 LSUHSC-NO Ad hoc reviewer for LA CaTS Center Pilot Grants.

Editorial Posts and Activities:

Journal Editor or Associate Editor:

2022–present Frontiers in Immunology, Review Editor.

Reviewer:

2010–2018 PLoS One.

2011–present Alcoholism: Clinical and Experimental Therapeutics.

2013–2014 Cellular and Molecular Neurobiology.

2013–2019 Alcohol.

2015–2016 Journal of Visualized Experiments.

2020–present American Journal of Physiology (Cell Physiology).

2020–present Cells.

2020–present Pathogens.

2020–present Vaccines.

2021–present Biochem.

2022–present Biomedicines.

2022–present Frontiers in Immunology.

2022–present Inflammation.

2022–present International Journal of Molecular Sciences (Trusted Reviewer).

2022–present Viruses.

Revised: August 2024

SERVICE AND ADMINISTRATION

University/Institutional Service:

LSUHSC (campus) committees

1. 2025–current Member, Institutional Biosafety Committee (IBC). Reviews and approves research protocols involving recombinant/synthetic nucleic acids, viral vectors, biohazards, and other regulated biological materials; advises investigators on biosafety practices and institutional compliance.
2. 2022–2025 Delegate, Faculty Assembly (LSUHSC). Represents Department of Physiology faculty in monthly meetings; communicates departmental issues to the Assembly and reports back to the department.

School committees

1. 2020–2021 Member, Admissions Committee for Graduate Studies (School of Graduate Studies; Interdisciplinary Program). Reviews applicants, interviews prospective students, votes on admissions.
2. 2021–present Member; Chair (2022–present), Graduate School Research Day Planning Committee (School of Graduate Studies). Organizes annual Graduate Student Research Day: solicits abstracts, recruits judges, selects keynote speaker.
3. 2014–2020 Member, Research Advisory Committee (School of Medicine). Conducted space usage surveys; determined space utilization based on funding sources.

Departmental committees

1. 2021 Faculty Chair, Organizing Committee, Alcohol and Drug Abuse Center of Excellence (ADACE) 15th Biannual Meeting. Developed program, organized symposia, recruited judges, invited keynote speakers.
2. 2021–present Member, Department of Physiology Alumnus Award Selection Committee. Solicits nominations, ranks finalists, submits finalists for department vote.

Hospital committees

Special assignments – ad hoc task forces/working groups, projects, etc.

State/Regional Service:

Professional society committees

Meeting chair or organizer

Leadership role

National Service:

Professional society committees

1. 2009 Program Committee Member, Sixth NIAAA Alcohol Trainee Workshop (New Orleans, LA)

Membership in Professional Organizations:

1. 2014–present Alcohol and Drug Abuse Center of Excellence (ADACE)
2. 2011–present American Physiological Society (APS)
3. 2009–present Research Society on Alcoholism (RSA)
4. 2009–2011 American Association for the Advancement of Science (AAAS)
5. 2008–2009 Southern Society for Clinical Investigation (SSCI)

Community Service Activities:

1. 2018 Liaison, PAL Resource Fair, ADACE Alcohol Outreach. Set up and staffed booth distributing information on substance use disorders.
2. 2012–present Judge, Graduate Student Research Day (6 of last 12 years). Evaluated 3–5 scientific posters using predetermined scoring rubric.
3. 2018–2019 Judge, Medical Student Research Day. Evaluated 3–5 scientific posters using predetermined scoring rubric.
4. 2023 Mentor, Sci-Fly Mentoring Event.