
Jon H. Lowrance, Ph.D.
Professor
College of Liberal Arts and Sciences: Biology
Lipscomb University
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Academic Background

Ph.D. University of Tennessee Center for the Health Sciences.

Post Doctorate work University of Missouri-Columbia.

M.S. Middle Tennessee State University.

B.S. Lipscomb University.

Memberships

The American Association of Immunologists, 2017-Present

Am. Asso. for the Advancement of Science, 1986-Present

American Society for Microbiology, 1984-Present

Tennessee Academy of Science, 1975-Present

WORK EXPERIENCE:

Academic Experience

Professor of Biology, Lipscomb University (August, 2006 - Present), Nashville, Tennessee.

Chairman of Biology, Lipscomb University (June, 1998 - August, 2008), Nashville, Tennessee.

Associate Professor of Biology, Lipscomb University (August, 1999 - August, 2006), Nashville, Tennessee.

Assistant Professor of Biology, Lipscomb University (June, 1994 - August, 1999), Nashville, Tennessee.

Instructor Nursing Program, Columbia College (August, 1989 - May, 1994), Columbia, Missouri.

Research Assistant, University of Tennessee Health Science Center (June, 1981 - August, 1984), Memphis, Tennessee.

Instructor and Laboratory Coordinator, Lipscomb University (August, 1977 - June, 1981), Nashville, Tennessee.

Microbiology Instructor, Gupton College of Mortuary Sciences (August, 1977 - June, 1979), Nashville, Tennessee.

TEACHING:

Courses Taught

Courses from the Teaching Schedule: Advanced Immunology, Applied Lab Methods: Genetics, Biology Seminar, Biomolecular Laboratory II, Capstone Research, Cell Biology, Histology, Immunology, LUExp: Arts of Self & Story, Microbiology, Microbiology-WC, Research in Biology, ST:Microbial Pathogenesis, Spec Top:Apoptosis, Special Topics in Biology, Virology

Courses taught, but not in the Schedule:

INTELLECTUAL CONTRIBUTIONS:

Grid

Category	BDS	AIS	TLS	Total
Articles in Refereed Journals	7			7
Books, Monographs, Compilations, Manuals, Supplements, Chapters, Cases, Readings	2			2
Presentations of Refereed Papers	2			2
Presentations of Non-Refereed Papers	24	1		25

Refereed Articles

Gresham, H. D., Lowrance, J. H., Caver, T. E., Wilson, B. S., & Linberg, F. P. (2000). Survival of Staphylococcus aureus Inside Neutrophils Contributes to Infection. *Journal of Immunology*, *200*, 3713-3722.

Lowrance, J. H., O'Sullivan, F., Caver, T. E., Waegell, W., & Gresham, H. D. (1994). Spontaneous Elaboration of TGF- β Suppresses Host Defense against Bacterial Infection in Autoimmune MRL/lpr Mice. *J. Experimental Med.*, *180*, 1693-1703.

Baddour, L. M., Lowrance, C., Lowrance, J. H., Albus, A., & Lee, J. C. (1992). Staphylococcus aureus Microcapsule Expression Attenuates Bacterial Virulence in a Rat Model of Experimental Endocarditis. *J. Infect. Dis.*, *165*, 749-753.

Lowrance, J. H., Baddour, L. M., & Simpson, W. A. (1990). The Role of Fibronectin in Streptococcus sanguis Infective Endocarditis. *Journal of Clinical Investigation*, *86*, 7.13.

Christensen, G. D., Baddour, L. M., Madison, B. M., Simpson, W. A., & Lowrance, J. H. (1990). Colonial Morphology of Staphylococci on Memphis Agar: Phase Variation of Slime Production, Resistance to Beta-Lactam Antibiotics, and Virulence. *J. Infect. Dis.*, *161*, 1153-1169.

Weems, J. J., Lowrance, J. H., Simpson, W. A., & Baddour, L. M. (1989). Molecular epidemiology of nosocomial, multiple aminoglycosides resistant Enterococcus faecalis. *J. Antimicrobial Chemotherapy*, *24*, 121-130.

Baddour, L. M., Christensen, G. D., Lowrance, J. H., & Simpson, W. A. (1989). Pathogenesis of Experimental Endocarditis. *Reviews of Infect. Dis.*, *11*, 452-463.

Lowrance, J. H., Hasty, D. L., & Simpson, W. A. (in press, 1988). Adherence of Streptococcus sanguis to conformationally specific determinants on fibronectin. *Infection and Immunity*.

Book Chapters

Non-Refereed

Christensen, G. D., Baddour, L. M., Hasty, D. L., Lowrance, J. H., & Simpson, W. A. (1990). Phenotypic Variation in the Pathogenesis of Experimental Endocarditis Caused by Staphylococcus epidermidis. *Pathogenesis of Wound and Biomaterial-Associated Infections*. Springer-Verlag London..

Christensen, G. D., Baddour, L. M., Hasty, D. L., Lowrance, J. H., & Simpson, W. A. (1989). . Microbial and Foreign body factors in the pathogenesis of medical device infections. *Infections Associated with Indwelling Medical Devices*. ASM Press.

Presentation of Refereed Papers

Local

Ritchie, J. & Lowrance, J. H. (2016-2017). *Chimeric Antigen Receptor T-Cell (CAR T) Therapy as a Novel Treatment*. Lipscomb University Student Scholar Symposium, Nashville, Tennessee.

Lowrance, J. H., Holley, J. M., & Corso, J. N. (2016-2017, April). *Short Chain Fatty Acid Regulation of Toll-Like Receptor Mediated Inflammatory Pathways in Colorectal Epithelial Cells*. Lipscomb University Student Scholar Symposium, Nashville, Tennessee.

Presentation of Non-Refereed Papers

Local

Cunningham, S. & Lowrance, J. H. (2018-2019). *NOD2 Mutations in Crohn's disease*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Edmonds, S. & Lowrance, J. H. (2018-2019). *Expression of TLR4 in Cancerous and Non-cancerous Colorectal Epithelial Cell Lines in Response to Short Chain Fatty Acids*. Invited presentation at Lipscomb University Student Scholars Symposium, Nashville, Tennessee.

Hibma, J. L. & Lowrance, J. H. (2018-2019). *Short Chain Fatty Acid Regulation of Toll-Like Receptor 4 in Colorectal Epithelial Cells*. Invited presentation at Lipscomb University Student Scholars Symposium, Nashville, Tennessee.

McCormack, K. A. & Lowrance, J. H. (2018-2019). *Presence of TLR4 in Primary Gingival Cells from Buccal Washes*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Seal, J. T. & Lowrance, J. H. (2018-2019). *Trisomy 21 as a Mechanism to Increase the Likelihood of Leukemia in Early Childhood*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Watson, M. & Lowrance, J. H. (2018-2019). *Molecular Profiling of Ehrlichia chaffeensis and Borrelia burgdorferi in Davidson and Wilson County, Tennessee*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Lowrance, J. H., Ankenbauer, K. E., & Kemper, K. J. (2017-2018). *The Localization of the TLR 4/MD2 Complex in Colonic Epithelial Cells after Stimulation with SCFAs*. Invited presentation at Lipscomb University Student Scholars Symposium, Nashville, Tennessee.

Lowrance, J. H. & Vasseur, C. (2017-2018). *TLR 4 Associated GPR41 Expression Due to SCFA Stimulation*. Invited presentation at Lipscomb University Student Scholar Symposium, Nashville, Tennessee.

Mahon, C. (2017-2018, April). *Toll-Like Receptor Roles in Periodontal Diseases*. Lipscomb University Biomedical Research Symposium, Nashville, United States of America.

McNaught, J. (2017-2018, April). *Neuronal Degradation a Hallmark of Huntington's Disease*. Lipscomb University Biomedical Research Symposium, Nashville, United States of America.

Byrd, J. & Lowrance, J. H. (2015-2016, April). *BDNF Signal Starvation via TrkB Inhibition in MDA-MB-231 Breast Adenocarcinoma Cells*. Lipscomb University Student Scholars Symposium, Nashville, Tennessee.

Couch, C. & Lowrance, J. H. (2015-2016, April). *Short Chain Fatty Acid Stimulation of TLR-4 in Intestinal Epithelial Cells*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Hancock, T. & Lowrance, J. H. (2015-2016, April). *Comparing Apoptotic Marker Expression Among Breast Cell Lines*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Schultz, J. & Lowrance, J. H. (2015-2016, April). *Dengue Virus Pathogenesis: Genetic Targeting Using RIG-1-like Receptors and IRF-3/7*. Lipscomb University Student Scholars Symposium, Nashville, Tennessee.

Hampton, G. & Lowrance, J. H. (2015-2016, December). *Comparison of Apoptotic Component Expression Between Normal Cells and Breast Cancer Cells, MDA-MB-231 AND MCF-7*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Klein, A. & Lowrance, J. H. (2014-2015, April). *Expression of Toll-Like Receptors in NCM Normal Colon Cell and HT-29 P53 Colon Cancer Cells*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Shin, J. & Lowrance, J. H. (2014-2015, April). *Human Brain Derived Neurotrophic Factor Exon Profile in Breast Cancer Cells MDA-MB-231 and MCF-7*. Lipscomb University Biomedical Research Symposium, Nashville, Tennessee.

Regional

Owens, J. A. & Lowrance, J. H. (2015-2016, September). *Short chain fatty acids stimulation of TLR4 expression in intestinal epithelial cells*. American Society of Microbiology-Kentucky/Tennessee Branch, Murfreesboro, Tennessee.

State

Lowrance, J. H. & McNeil, J. B. (2013-2014). *Exon Profile of Human Brain Derived Neurotrophic Factor (BDNF) in Non-Cancerous Breast Epithelium Using HMEC and MCF-10A Cells Lines*. Tennessee Academy of Science, Tullahoma, Tennessee.

Hall, A., Burch, A., & Lowrance, J. H. (2010-2011). *Brain-Derived Neurotrophic Factor (BDNF) Expression in MDA-MB-231 Cancer Cells*. Tennessee Academy of Science, Nashville, Tennessee.

Maerz, P., Brawner, K., & Lowrance, K. H. (2010-2011). *BDNF Expression in a Prostate Cancer Cell Line*. Tennessee Academy of Science, Nashville, Tennessee.

Pannell, J., Burch, A., Lowrance, J. H., & Gallaher, K. (2010-2011). *Effects of Bio-One on the Nitrogen Fixation Process*. Tennessee Academy of Science, Nashville, Tennessee.

Downs, R. & Lowrance, J. H. (1998-1999). *PCR Analysis of Phase Variation of Type1 Fimbriae in Escherichia coli*. Tennessee Academy of Science, Clarksville, Tennessee.

Finch, L., Luther, M., Holliday, S., Lowrance, J. H., & Clinger, K. (1996-1997). *Growth Conditions Allowing for Expression of Tyrosine Decarboxylase in Chromobacterium violaceum*. Tennessee Academy of Science, Sewanee, Tennessee.

Holliday, S., Clinger, K., & Lowrance, J. H. (1996-1997). *Detection of Tyrosine Decarboxylase Activity in Chromobacterium violaceum*. Tennessee Academy of Science, Clarksville, Tennessee.

SERVICE:

Service to the University

Department Assignments

Chair:

2018-2019: Search committee for new Biology faculty member 2018-2019

Faculty Advisor:

2018-2019 – 2020-2021: Summer Advance Sessions

2015-2016 – 2016-2017: Summer Advance Sessions

Faculty Sponsor:

2018-2019 – 2020-2021: Med Club Sponsor

2017-2018: Med Club

Other Institutional Service Activities:

2017-2018 – 2020-2021: Student Recruiting

2017-2018: Lipscomb Admissions

2016-2017 – 2017-2018: Ecology Field Trip

2016-2017 – 2017-2018: BMS graduate student orientation

University Assignments

Committee Member:

2018-2019: Health Professional Advisory Committee

2018-2019: Committee for the 50th Anniversary of the Tau Phi Social Club of Lipscomb University

2016-2017: Faith and Science Committee

2016-2017: Centering Core Committee

2015-2016 – 2016-2017: Health Professional Advisory Committee

Faculty Sponsor:

2015-2016 – 2016-2017: Med Club

Mentoring Activities:

2016-2017: Joshua Project

2016-2017: Faculty Mentor Alpha Chi National Honor Scholarship Society

Other Institutional Service Activities:

2017-2018 – 2020-2021: First Day We Pray

2016-2017: First Day We Pray 2016-2017

2015-2016: Lipscomb Admissions Events

2015-2016: Recruit students into the Biology programs at Lipscomb University

2015-2016: First Day We Pray

2015-2016: Speaker for the Science and Faith Chapel series

2015-2016: Ward Society Leadership Award

2015-2016: Faculty Mentor Alpha Chi National Honor Scholarship Society

Writing Student Recommendations:

2018-2019 – 2020-2021: Health Advisory Committee

Service to the Profession**Academic Conference: Discussant**

2017-2018: Christian Scholars Conference, Nashville, Tennessee. "Genetics, Genomics, and Information Systems: Recent Findings in the Genome"

Academic Conference: Moderator / Facilitator

2018-2019: Christian Scholars' Conference, Nashville, Tennessee. Convener of a science session "More than Magic: Science, Theology, and Christian Responsibility" by Steve Donaldson

Board Member: PRJ Editorial Review Board

2016-2017: Tennessee Academy of Science, Nashville, Tennessee.

Invited Lecture

2020-2021: Honors Class Lecture.

2019-2020: Honors Class Lecture. Honors Class lecture

2018-2019: The Academy Homeschool Program, Nashville, Tennessee. A lecture on CRISPR Gene Editing to the Academy Home School program.

2017-2018: Honors Class Lecture, Nashville, Tennessee. Guest lecture on "GMOs in Foods and Animals" for Dr. Paul Prill's Honors class.

2016-2017: Honors Class Lecture, Nashville, Tennessee. Guest lecture on "GMOs in Foods and Animals" for Dr. Paul Prill's Honors class.

2015-2016: South Pacific Bible College, Tauranga, New Zealand. Taught a course in Christian Evidences for the South Pacific Bible College.

Member: Committee/Task Force

2018-2019 – 2019-2020: Christian Scholars' Conference, Nashville, Tennessee. Committee member of the Science sessions.

2016-2017 – 2017-2018: Meharry Medical College, Nashville, Tennessee. Committee member for Amanda Williams thesis at Meharry Medical College

2015-2016: Meharry Medical College, Nashville, Tennessee. Member of Amanda William's dissertation committee at Meharry Medical College, Nashville, TN.

Service to the Community

Member of a Committee

2016-2017: Small Group Planning Committee, Part of the Small Group Planning committee for Brentwood Hills Church of Christ

Other Community Service Activities

2019-2020: Habitat for Humanity, Leader of a Brentwood Hills Church of Christ Habitat for Humanity build during April, 2019.

2018-2019 – 2019-2020: Adult Education Assistant Director at Brentwood Hills Church of Christ

2016-2017 – 2019-2020: Elder at Brentwood Hills Church of Christ

2017-2018: Adult Educational Assistant Director at Brentwood Hills Church of Christ

2015-2016 – 2016-2017: Elder at Brentwood Hills Church of Christ

2015-2016: Habitat for Humanity building project, Organized the Brentwood Hills Church of Christ building project with the Greater Nashville Habitat for Humanity. This building project took place in April and May for 4 weekends.

2015-2016: The Bridge Thanksgiving Program, Helped serve Thanksgiving meals to The Bridge Program

Speech / Presentation at a Community Meeting

2017-2018: Morning Star Sanctuary

Faculty Development

Other Professional Development

2016-2017: Lipscomb Brown Bag Seminars. I attended three different sessions.

2016-2017: Insight: A Community Learning Experience for Faculty.

2015-2016: American Society of Microbiology-Kentucky/Tennessee Branch.

Professional Seminars / Workshops

2016-2017: Lipscomb University Summer Celebration. "STRAIGHT TALK TO LEADERS ABOUT THE CHURCH. by Randy Harris

2016-2017: Lipscomb University Summer Celebration. 21st CENTURY APOLOGETICS FOR EQUIPPED CHRISTIAN LEADERS"

2016-2017: BioLogos 2017 Conference: Christ and Creation.

2014-2015: Tennessee Academy of Science.

Technology-Related Training

2016-2017: Blackboard Training. Blackboard training sponsored by Lipscomb University

Honors & Awards

Award

2018-2019: Outstanding Teacher, Lipscomb University. Outstanding Teacher Award 2019

2006-2007: Summer Fellowship, Lipscomb University. John William Baker Summer Fellowship Award

2006-2007: Outstanding Teacher, Lipscomb University. Outstanding Teacher Award for 2006

1997-1998: Outstanding Teacher, Lipscomb University. Outstanding Teacher Award for 1997