TEXAS STATE VITA

I. Academic/Professional Background

A. Name and Title

Name: Dr. Robert J C McLean Title: Regents' Professor

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
PHD	1986	University of Calgary	Biology	The Role of Ureolytic Bacteria in Infectious Urinary Stone Production
BSC	1978	University of Guelph	Microbiology	

C. University Experience

Position	*University*	*Comments*	*Dates*
Homer E Prince Microbiology Professor	Texas State University		2013 - Present
Regents' Professor	Texas State University System		2012 - Present
University Distinguished Professor	Texas State University		2012 - Present
Professor	Texas State University		2004 - Present
Assistant Director, Faculty Development	Texas State University. San Marcos	Organize and lead series of workshops for first-year faculty career development	August 2017 - May 2019
Adjunct Graduate Faculty	University of Texas – San Antonio		2011 - 2013
Visiting Scholar	University of Texas		2010 - 2013
Visiting Scholar	University of Texas		2008
Associate Professor	Texas State University		1998 - 2004
Adjunct Graduate Faculty	Midwestern State University		2002 - 2003
Visiting Scholar	Texas A&M University		2000
Assistant Professor	Southwest Texas		1993 - 1998

Position	*University*	*Comments*	*Dates*
	State University		
Adjunct Professor	Queen's University		1993 - 1994
Assistant Professor	Queen's University., Canada		1988 - 1993
Postdoctoral Fellow	University of Guelph., Canada		1986 - 1988

II. TEACHING

A. Teaching Honors and Awards:

Award / Honor Recipient: Alpha Chi Favorite Professor, Alpha Chi National Honors Society - Texas State University.
2022

Award / Honor Recipient: Favorite Professor, Alpha Chi National Honors Society.
November 18, 2022

Award / Honor Recipient: College Achievement Award for Teaching, College of Science and Engineering, Texas State University.
August 2022

Award / Honor Recipient: Favorite Professor, Alpha Chi National Honor Society.
November 6, 2018

Award / Honor Recipient: Favorite Professor, Alpha Chi Honors Society, Southwest Texas State University.
2002

B. Courses Taught:

Texas State University:

BIO 2400 - MICROBIOLOGY

BIO 3440 - MICROBIOLOGY

BIO 4166 - MED MICRO LAB

BIO 4299 - UNDERGRAD RES

BIO 4350G - MEDICAL MICROBIOL

BIO 4350 - TOPICS IN BIOLOGY

BIO 4440 - PATHOGEN FUNGI

BIO 4445 - PATH MICROBIO

BIO 4446 - MICROBIAL ECOLOGY

BIO 4447 - MICROBIAL PHYSIOLOGY

BIO 4447 - MICROBL PHYS & GEN

BIO 5110M - MICROBIOLOGY

BIO 5110 - SEMINAR

BIO 5114 - RESEARCH EXPER

BIO 5166 - MED MICRO LAB

BIO 5199B - THESIS

BIO 5214 - RESEARCH EXPER

BIO 5299B - THESIS

BIO 5314 - RESEARCH EXPER

BIO 5350G - MEDICAL MICROBIOL

BIO 5350 - TOPICS IN PHYSIOLG

BIO 5366 - MED MICROBIOLOGY

BIO 5390 - PROB IN BIO SCI

BIO 5399A - THESIS

BIO 5399B - THESIS

BIO 5445 - PATH MICROBIO

BIO 5599B - THESIS

BIO 5999B - THESIS

BIO 7102 - SEMINAR AQ RES

BIO 7199A - DISSERTATION

BIO 7214 - RESEARCH EXPER

BIO 7302 - PROBS AQ RES

BIO 7303 - RESEARCH

BIO 7314 - RESEARCH EXPER

BIO 7399A - DISSERTATION

BIO 7399A - DISSERTN AQUA RES

BIO 7410 - AQ MICROB ECOLOGY

BIO 7447 - MICROBIAL PHYSIOLOGY

BIO 7447 - MICROBL PHYS & GEN

BIO 7599A - DISSERTATION

BIO 7699A - DISSERTATION

BIO 7699A - DISSERTN AQUA RES

BIO 7999A - DISSERTATION

Arizona State University:

LIA 194 - Living in Space: Know Before You Go - ASU Discovery Seminar

Queen's University, Kingston ON, Canada:

Micr 120 - Introductory Microbiology

Micr 433 - Microbial Diversity

Micr 930 - Graduate Bacteriology

University of Guelph:

65 320 - Microbial Ecology

University of Lethbridge:

Microbiology (guest lecturer)

C. Directed Student Learning (i.e. theses, dissertations, exit committees, etc.):

Supervisor / Chair, Master's Thesis, "Polymicrobial Biofilm Growth During Spaceflight", Status: In Progress. (January 2023 - Present). Biology, Texas State University.
Student(s): Taylor Ranson, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Computer analysis of microbial corrosion during spaceflight", Status: In Progress. (September 2022 - Present). Biology, Texas State University.
Student(s): Evan Ortiz, Graduate, MS.

Supervisor / Chair, Exit Exam, Status: Completed. (August 2023 - December 2023). Biology, Texas State University.
Student(s): Alexis Hailey, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Whole Genome Analysis of Escherichia coli and Pseudomonas aeruginosa Mixed Culture Biofilms Grown for 117 days in Spaceflight", Status: Completed. (August 2021 - November 10, 2023). Biology, Texas State University.
Student(s): Aron Valdez, Graduate, MS.

Supervisor / Chair, Exit Exam, Status: Completed. (January 2023 - July 2023). Biology, Texas State University.
Student(s): Priti Ambokar, Graduate, MS.

Co-Advisor, Master's Thesis, "Development of Cement-Free Bioconcrete: A Pilot Study", Status: Completed. (May 2022 - July 2023). Ingram School of Engineering, Texas State University.
Student(s): Maryam Ghadami, Graduate, MS.

Co-advisor, Master's Thesis, "Characterization the Metal Stress Response in Pseudogymnoasus destuctans", Status: Completed. (August 2022 - April 12, 2023). Biology, Texas State University.
Student(s): Saika Anne, Graduate, MS.

Supervisor / Chair, Master's Thesis, "The Effects of Anaerobic Growth on Quorum Sensing, Cobalt Inhibition, and Biofilm Formation in Chromobacterium violaceum", Status: Completed. (August 2021 - April 6, 2023). Biology, Texas State University.
Student(s): Charlotte Packard, Graduate, MS.

Member, Master's Thesis, "An investigation of potential factors that may contribute to immunological variation in the hard-coral Astrangia poculata", Status: Completed. (November 2021 - December 2022). Biology, Texas State University.
Student(s): Isabella Changsut, Graduate, MS.

Supervisor / Chair, Applied Research Project, "Effect of central metabolism mutations on Escherichia coli biofilm formation", Status: Completed. (September 2021 - December 2022). Biology, Texas State University.
Student(s): Taylor Ranson, Undergraduate, BS.

Additional Comments: In process of writing a manuscript

External examiner - PhD thesis, Dissertation, "Antipathogenic Properties of Selected South African Medicinal Plants to Combat Multidrug-Resistant Bacteria", Status: Completed. (July 2022 - August 14, 2022). Biochemistry, Genetics and Microbiology, University of Pretoria, South Africa.
Student(s): Itumeleng Baloyi, Doctoral, PhD.

Supervisor / Chair, Project, "Role of outer membrane vesicle in struvite crystal formation", Status: Completed. (May 2020 - April 2022). Biology, Texas State University.
Student(s): Erin Brown, Undergraduate.

Supervisor / Chair, Master's Thesis, "Characterization of a Novel Bacterium that Preferentially Grows in Low Fluid Shear Modeled Microgravity", Status: Completed. (January 2020 - April 2022). Biology, Texas State University.
Student(s): Calvin Tran, Graduate, MS.

Additional Comments: Entered dental school (DMD program) at Tufts University, Boston MA

Supervisor / Chair, Project, "Flag-tagging CviR protein in Chromobacterium violaceum", Status: Completed. (September 2020 - December 2, 2021). Biology, Texas State University.
Student(s): Lily Crowns, Undergraduate.

Supervisor / Chair, Master's Thesis, "The Effect of Debaryomyces hansenii on Clostridioides difficile Sporulation", Status: Completed. (September 2019 - July 15, 2021). Biology, Texas State University.
Student(s): Julia Widmer, Graduate, MS.

Additional Comments: Admitted to medical school, class of 2022, Ross University

Member, Dissertation, "Competition of Frankia populations for nodulation and development in soils", Status: Completed. (2017 - June 18, 2021). Biology, Texas State University.
Student(s): Spandana Vemulapally, Doctoral, PhD.

Supervisor / Chair, Master's Thesis, "Synergistic Effects of Monoculture Biofilm Dispersion and Antibiotic Treatment", Status: Completed. (August 2019 - April 2021). Biology, Texas State University.

Student(s): Shelbie Powers, Graduate, MS.

Additional Comments: Entered medical school (MD program) at University of Houston

Member, Master's Thesis, "Impact of Nitrite on Goldfish (Carassius auratus) Microbiomes and Probiotic Design", Status: Completed. (November 12, 2018 - April 2021). Biology, Texas State University.
Student(s): Whitney Ortiz, Graduate, MS.

Supervisor / Chair, Dissertation, "Biofilm Growth and Control in Spaceflight", Status: Completed. (August 2016 - December 2020). Biology, Texas State University.
Student(s): Starla Thornhill, Doctoral, PhD.

Additional Comments: Completed qualifying exam on Feb 2, 2018; had authored 4 publications to date (1 paper and 1 chapter from MS work); 1 review and 1 book chapter from PhD. Defended thesis on Oct 30, 2020.

Supervisor / Chair, Project, "Inhibition of Proteus mirabilis swarming", Status: Completed. (September 2019 - May 2020). Biology, Texas State University.
Student(s): Luke Alsbrooks, Undergraduate.

Supervisor / Chair, Project, "Inhibition of Proteus mirabilis swarming", Status: Completed. (September 2019 - April 2020). Biology, Texas State University.
Student(s): Chloe Troupe, Undergraduate.

Supervisor / Chair, Master's Thesis, "Preferential Growth of an Aquatic Bacterium in Low-Shear Modeled Microgravity", Status: Completed. (September 2017 - November 1, 2019). Biology, Texas State University.
Student(s): Quentin DiPasquale, Graduate, MS.

Member, Master's Thesis, Status: Completed. (November 2018 - October 2019). Biology, Texas State University.
Student(s): Phuong Le, Graduate, MS.

Supervisor / Chair, Independent Study, "Biofilms in dental unit waterlines", Status: Completed. (August 2017 - July 2019). Biology, Texas State University.
Student(s): Lindsey Tristan, Graduate, MS.

Additional Comments: Did course-based MS degree

Supervisor / Chair, Independent Study, "Biofilm dispersion and antimicrobial therapy", Status: Completed. (August 2018 - April 2019). Biology.
Student(s): Shelbie Powers, Undergraduate, BS.

Additional Comments: Continued work as MS student

Supervisor / Chair, Master's Thesis, "Effect of anaerobic growth on Chromobacterium violaceum biofilms and quorum signaling", Status: Completed. (August 2017 - April 5, 2019). Biology, Texas State University.
Student(s): Sahar Kianarsi, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Influence of bacterial outer membrane vesicles on struvite crystal growth", Status: Completed. (November 2017 - November 2018). Biology, Texas State University.
Student(s): Ashley Summers, Graduate, MS.

Supervisor / Chair, Independent Study, "Influence of cell signals in biofilm population recruitment", Status: Completed. (September 2017 - May 2018). Biology, Texas State University.
Student(s): Mara Cabungcal, Undergraduate, BS.

Member, Exit Exam, Status: Completed. (2017). Biology, Texas State University.
Student(s): Diarra Hassel, Graduate, MS.

Member, Master's Thesis, "Pathogen detection by microfluidics", Status: Completed. (September 2015 - November 2017). Biology, Texas State University.
Student(s): Kelly Braddock, Graduate, MS.

Additional Comments: Student transferred to Shannon Weigum lab.

Supervisor / Chair, Master's Thesis, "Effects of short chain fatty acids propionate, acetate, and butyrate on the growth of Clostridium difficile in co-culture with an Escherichia coli atoE mutant", Status: Completed. (September 2015 - July 1, 2017). Biology, Texas State University.
Student(s): Kerri White, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Influence of indole and mixed culture growth on Pseudomonas aeruginosa biofilm structure", Status: Completed. (August 2011 - July 1, 2017). Biology, Texas State University.
Student(s): Ernesto Valenzuela, Graduate, MS.

Member, Non Thesis, Status: Completed. (June 2017). Biology, Texas State University.
Student(s): Danielle Wilson, Graduate, MS.

Additional Comments: Course-based MS thesis

Supervisor / Chair, Master's Thesis, "Quorum signal control of biofilm succession", Status: Proposal. (August 2015 - June 15, 2017). Biology, Texas State University.
Student(s): Keith Garcia, Graduate, MS.

Additional Comments: Left program

Supervisor / Chair, Master's Thesis, "Mechanisms of Escherichia coli and Vibrio cholerae fitness when grown in co-culture", Status: Completed. (September 2014 - December 2016). Biology, Texas State University.
Student(s): Candace Longoria, Graduate.

Supervisor / Chair, Master's Thesis, "Inhibition of quorum sensing and biofilm formation in Gram-negative bacteria in the presence of sub- lethal concentrations of cadmium, cobalt and nickel divalent cations", Status: Completed. (September 2014 - December 2016). Biology, Texas State University.
Student(s): Starla Thornhill, Graduate, MS.

Supervisory Committee, Dissertation, "Salmonellae in the intestines of Hypostomus plectostomus in the San Marcos river", Status: Completed. (2015 - July 2016). Biology, Texas State University.
Student(s): Anna Gates, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Inducing Biofilm Dispersion", Status: Completed. (January 2015 - July 2016). Biology, Texas State University.
Student(s): Sara Robertson, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Fitness of Escherichia coli when in mixed culture with Enterococcus faecalis", Status: Completed. (September 2014 - April 2016). Biology, Texas State University.
Student(s): Avry Stoltzman, Graduate, MS.

Supervisor / Chair, Non Thesis, Status: Completed. (2015). Biology, Texas State University.
Student(s): Erik Torkildsen, Graduate, MS.

Supervisory Committee, Dissertation, Status: Completed. (2012 - 2015). Biology, Texas State University.
Student(s): Suvi Savant, Doctoral, PhD.

Member, Dissertation, "Characterization of the pathogenome and phylogenomic classification of enteropathogenic Escherichia coli of the O157:non-H7 serotypes", Status: Completed. (June 25, 2015). Biology, University of Texas at San Antonio.
Student(s): Fatemeh Sanjar, Doctoral, PhD.

Supervisor / Chair, Independent Study, "Effect of dispersing agent on P. aeruginosa biofilms", Status: Completed. (August 2014 - May 2015). Texas State University.
Student(s): Lindsi Clayton, Undergraduate.

Supervisor / Chair, Independent Study, "Antimicrobial plasma gas effects on E. coli oxyR strains", Status: Completed. (September 2014 - April 2015). Biology, Texas State University.
Student(s): Anthony Gibbs, Undergraduate.

Supervisor / Chair, Non Thesis, Status: Proposal. (2014). Biology, Texas State University.
Student(s): Angela Priebe, Graduate.

Additional Comments: Student withdrew.

Supervisor / Chair, Independent Study, "Bacterial biofilms as nutrients for riffle beetles", Status: Completed. (2013 - 2014). Texas State University.
Student(s): Bronte Gonzales, Undergraduate.

Supervisor / Chair, Non Thesis, "Biofilm growth", Status: Proposal. (2013 - 2014). Texas State University.
Student(s): Jeff Priebe, Graduate.

Additional Comments: Student withdrew.

Supervisor / Chair, Master's Thesis, "The effect of indole production on the growth of Escherichia coli when co-cultured with Enterococcus faecalis", Status: Completed. (January 2012 - July 2014). Biology, Texas State University.
Student(s): Shelly Pringle, Graduate, MS.

Supervisor / Chair, Independent Study, "Antimicrobial plasma gas", Status: Completed. (August 2013 - May 2014). Biology, Texas State University.
Student(s): Leigh Maberry, Undergraduate.

Supervisor / Chair, Independent Study, Status: Completed. (2013). Texas State University.
Student(s): Starla Thornhill, Undergraduate.

Supervisor / Chair, Independent Study, "Degradation of pyocyanin by Bacillus pumilus", Status: Completed. (2012 - 2013). Biology, Texas State University.
Student(s): Marshall Logan Warren, Undergraduate.

Supervisor / Chair, Master's Thesis, "Indole inhibition of AHL-mediated quorum signaling is widespread in gram-negative bacilli", Status: Completed. (2011 - 2013). Biology, Texas State University.
Student(s): Benjamin Hidalgo-Romano, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Method development for exploring probiotic-host interaction in a Caenorhabditis elegans model", Status: Completed. (2011 - 2013). Biology, Texas State University.
Student(s): Marwa Al Tameemi, Graduate, MS.

Supervisory Committee, Master's Thesis, "Effect of bacteriophage 92 infection in combination with teicoplanin on mixed-community methicillin-resistant Staphylococcus aureus and Staphylococcus epidermidis biofilms", Status: Completed. (2012 - June 2013). Biology, Texas State University.
Student(s): Jon Riggs, Graduate, MS.

Supervisory Committee, Dissertation, "The Impact of Nickel on LuxI/LuxR-Type Quorum Sensing and Biofilm Formation of Environmental Proteobacterial Species", Status: Completed. (2007 - April 11, 2013). Civil and Environmental Engineering, Rice University.
Student(s): Leticia Vega, Doctoral, PhD.

Supervisor / Chair, Independent Study, "Pseudomonas aeruginosa Mutant Screen for Antibacterial Activity", Status: Completed. (2011 - 2012). Texas State University.
Student(s): Jared Korn, Undergraduate.

Member, Dissertation, "Distribution, diversity and fate of Salmonella in natural biofilms", Status: Completed. (2010 - 2012). Biology, Texas State University.
Student(s): Qiong Sha, Doctoral, PhD.

Supervisor / Chair, Independent Study, "E. coli Metabolism Genes (atoS, agaB) and Biofilm Growth", Status: Completed. (2010 - 2012). Biology, Texas State University.
Student(s): Ashley Orr, Undergraduate.

Supervisor / Chair, Independent Study, "E. coli Metabolism Genes (atoS, agaB) and Biofilm Growth", Status: Completed. (2010 - 2012). Biology, Texas State University.
Student(s): Christopher Muñoz, Undergraduate.

Supervisory Committee, Master's Thesis, "The effect of bacteriophage T4 and PB-1 infection with Tobramycin on the survival of Escherichia coli and Pseudomonas aeruginosa biofilms", Status: Completed. (2010 - 2012). Biology, Texas State University.
Student(s): Lindsey Coulter, Graduate, MS.

Supervisory Committee, Dissertation, "A mechanism for interspecies competition and virulence in Pseudomonas aeruginosa - containing polymicrobial infections", Status: Completed. (2010 - July 2012). Molecular Biosciences, University of Texas.
Student(s): Aishwarya Korgaonkar, Doctoral, PhD.

Supervisor / Chair, Independent Study, "Pseudomonas aeruginosa Indole Degradation Genetic Screen (with S Brown)", Status: Completed. (August 2011 - May 2012). Biology, Texas State University.
Student(s): James Gollihar, Undergraduate.

Supervisor / Chair, Independent Study, "Molecular Diagnosis of Tuberculosis (literature review)", Status: Completed. (2011). Biology, Texas State University.
Student(s): Sabine Dolino, Graduate, MS.

Supervisor / Chair, Independent Study, "AHLase Effect on E. coli Competition in Mixed Culture", Status: Completed. (2009 - 2011). Biology.
Student(s): Amanda Duran, Undergraduate.

Supervisor / Chair, Master's Thesis, "Long term competition in Escherichia coli and Pseudomonas aeruginosa co-culture", Status: Completed. (2009 - 2011). Biology, Texas State University.
Student(s): Nihar Deb Adhikary, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Indole and cAMP Promote Escherichia coli Survival in Mixed Culture", Status: Completed. (2009 - 2011). Biology, Texas State University.
Student(s): Tesfalem Zere, Graduate, MS.

Supervisory Committee, Dissertation, "Plankton dynamics in mesotrophic highland reservoirs of the Colorado River system, Texas", Status: Completed. (2006 - 2011). Biology.
Student(s): Mary Ann Wallace, Doctoral, PhD.

Supervisor / Chair, Independent Study, "E. coli competitiveness in absence of indole with cloned lactonase", Status: Completed. (September 2010 - May 2011). Biology, Texas State University.
Student(s): Kourtney Applegate, Undergraduate.

Supervisor / Chair, Independent Study, "Cross-hybridization of E. coli and P. aeruginosa Gene Chips", Status: Completed. (2009 - 2010). Texas State University.
Student(s): Carlos Perez, Undergraduate.

Supervisor / Chair, Non Thesis, Status: Completed. (2009 - 2010). Biology, Texas State University.
Student(s): Sarah Larroca, Graduate, MS.

Supervisor / Chair, Post-Doctoral, "Mixed culture genes for E. coli growth with P. aeruginosa", Status: Completed. (2009 - 2010). Biology, Texas State University.
Student(s): Weihua Chu.

Supervisor / Chair, Master's Thesis, "Carbon and Clay Nanoparticles Provoke Numerous Responses in Salmonella enterica var. typhimurium and Escherichia coli", Status: Completed. (2008 - 2010). Biology, Texas State University.
Student(s): Alicia Taylor, Graduate, MS.

Supervisory Committee, Master's Thesis, "Bacteriophage multiplication in Escherichia coli and Pseudomonas aeruginosa mixed biofilm communities", Status: Completed. (2008 - 2010). Biology.
Student(s): Matthew Kay, Graduate, MS.

Supervisory Committee, Dissertation, "Insight into a unique carbon resource partitioning mechanism in Aggregatibacter actinomycetemcomitans", Status: Completed. (2007 - 2010). Microbiology, University of Texas.
Student(s): Stacie Brown, Doctoral, PhD.

Supervisor / Chair, Independent Study, "E. coli Mixed Culture Growth", Status: Completed. (April 2010). Biology, Texas State University.
Student(s): Sherille Bradley, Undergraduate.

Supervisor / Chair, Independent Study, "qPCR Optimization In Mixed Cultures", Status: Completed. (2009). Biology, Texas State University.
Student(s): Sarah Larocca, Graduate, MS.

Supervisory Committee, Master's Thesis, "Effect of bacteriophage infection on the viability of Escherichia coli and Pseudomonas aeruginosa in mixed species biofilms", Status: Completed. (2008 - 2009). Biology, Texas State University.
Student(s): Thomas Erwin, Graduate, MS.

Supervisory Committee, Dissertation, "Evaluation of nitrogenase genes as markers in soil microbial community studies", Status: Completed. (2007 - 2009). Biology, Texas State University.
Student(s): Allana Welsh, Doctoral, PhD.

Supervisory Committee, Dissertation, "Saprophytic growth and fate of Frankia strains in soil", Status: Completed. (2007 - 2009). Biology, Texas State University.
Student(s): Babur Mirza, Graduate, PhD.

Supervisory Committee, Master's Thesis, "Diversity of Frankia populations in root nodules of sympatrically grown Alnus species", Status: Completed. (2007 - 2009). Biology, Texas State University.
Student(s): Anita Pokharel, Graduate.

Supervisor / Chair, Master's Thesis, "Potential Of Biofilms To Harbor Largemouth Bass Virus (LMBV)", Status: Completed. (2007 - 2009). Biology, Texas State University.
Student(s): Shubhankar Nath, Graduate, MS.

Supervisor / Chair, Independent Study, "Biomineralization by Pseudomonas aeruginosa Vesicles", Status: Completed. (2008). Texas State University.
Student(s): Gabriel Ortiz, Undergraduate.

Supervisor / Chair, Independent Study, "Phenotype Characterization of nanK Mutant Biofilms", Status: Completed. (2007 - 2008).
Student(s): Lindsey Wiggins, Undergraduate.

Supervisor / Chair, Independent Study, "Use of Resazurin Dye as a Biofilm Indicator", Status: Completed. (2007 - 2008). Biology, Texas State University.
Student(s): Megan Banning, Undergraduate.

Supervisor / Chair, Master's Thesis, "Chemotaxis Response to Cell Signals", Status: Proposal. (2007 - 2008). Biology, Texas State University.
Student(s): Maria Jiminez, Graduate.

Additional Comments: Student withdrew.

Supervisory Committee, Dissertation, "Regulation of biofilm formation and outer membrane protein expression in Vibrio cholerae by iron", Status: Completed. (2004 - 2008). Microbiology, University of Texas.
Student(s): Stephanie Craig, Doctoral, PhD.

Supervisor / Chair, Independent Study, "Quorum Signal Inhibiting Plants in Austin", Status: Completed. (2007). Biology, Texas State University.
Student(s): Amani Khamis, Undergraduate.

Supervisor / Chair, Independent Study, "Quorum Signal Inhibiting Plant Identification", Status: Completed. (2007). Biology, Texas State University.
Student(s): Amani Zayed, Undergraduate.

Supervisor / Chair, Independent Study, "Quorum Signal Inhibition Research (literature review)", Status: Completed. (2007). Texas State University.
Student(s): Heath Keel, Undergraduate.

Supervisor / Chair, Independent Study, "Evaluation of Synthesized Quorum Signal Inhibitors", Status: Completed. (2007). Texas State University.
Student(s): Katie Mallet, Undergraduate.

Supervisor / Chair, Independent Study, "Influence of Teas on Bacterial Quorum Signaling and Biofilms", Status: Completed. (2006 - 2007). Biology, Texas State University.
Student(s): Veronika Huerta, Undergraduate.

Supervisor / Chair, Master's Thesis, "Role of yjfO, agaB and atoS in Escherichia coli Biofilm Formation and Stress Response", Status: Completed. (2005 - 2007). Texas State University.
Student(s): Mary Weber, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Effects of N-acyl-L-homoserine lactone lactonase on disruption of preformed biofilms, bacterial recruitment, and prevention of biofilms", Status: Completed. (2005 - 2007). Biology, Texas State University.
Student(s): William Boswell, Graduate, MS.

Supervisor / Chair, Independent Study, "Quorum Signal Inhibiting Bacteria in Big Bend National Park", Status: Completed. (2006). Texas State University.
Student(s): Maria Gomez, Undergraduate.

Supervisory Committee, Master's Thesis, Status: Proposal. (2006). Biology.
Student(s): Sam Schwarloze, Graduate, MS.

Supervisor / Chair, Non Thesis, Status: Completed. (2003 - 2006). Texas State University.
Student(s): Pejmon Afshar, Graduate, MS.

Supervisor / Chair, Independent Study, "Characterization of a Bacterial Quorum Sensing Inhibitor from an Aquifer Microorganism", Status: Completed. (2005). Biology, Texas State University.
Student(s): Aparna Mamidi, Undergraduate.

Supervisor / Chair, Independent Study, "Influence of Cryptic Gene, yjfO, on E. coli Biofilms", Status: Completed. (2005). Biology, Texas State University.
Student(s): Patricia Zenker, Undergraduate.

Supervisor / Chair, Independent Study, "Microgravity Enrichment of Planktonic and Biofilm Bacteria From Aquatic Environments", Status: Completed. (2004 - 2005). Texas State University.
Student(s): Sandra Bryant, Undergraduate.

Supervisor / Chair, Master's Thesis, "Detection of an Introduced Bacterial Culture in Greywater Treatment Reactors", Status: Completed. (2003 - 2005). Biology, Texas State University.
Student(s): Allana Welsh, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Identification and Characterization of Bacterial Isolates from Spring Lake, Texas", Status: Completed. (2003 - 2005). Biology, Texas State University.
Student(s): Mubina Merchant, Graduate, MS.

Supervisor / Chair, Honor's Thesis, "The Viral Cure: Bacteriophage as a Treatment Against Biofilm Infection", Status: Completed. (2004). Texas State University.
Student(s): Vanessa Pearson, Undergraduate, BS.

Supervisor / Chair, Independent Study, "Biofilm Community Structure and its Impact On Leaf Fossilization", Status: Completed. (2004). Texas State University.
Student(s): Olivia Gamez, Undergraduate.

Member, Dissertation, Status: Completed. (2003 - 2004). MD Anderson Cancer Center, University of Texas at Houston.
Student(s): Jarah Meador, Doctoral, PhD.

Supervisor / Chair, Master's Thesis, "Differential Gene Expression and Colanic Acid Gene Effects on Biofilm Formation", Status: Completed. (2001 - 2004). Texas State University.
Student(s): Christa Bates, Graduate, MS.

Supervisor / Chair, Independent Study, "Quorum Sensing in Nitrosomonas", Status: Completed. (2003). Biology, Texas State University.
Student(s): Chris Potts, Undergraduate.

Supervisor / Chair, Independent Study, "Endolithic Biofilms in Italian Travertine", Status: Completed. (2003). Biology, Texas State University.
Student(s): Melanie Leal, Undergraduate, BS.

Supervisor / Chair, Independent Study, "Endolithic Biofilms in Italian Travertine", Status: Completed. (2003). Texas State University.
Student(s): Toni Sanger, Undergraduate, BS.

Supervisory Committee, Master's Thesis, "The effect of disinfectants and antivirals on the infectivity and replication of largemouth bass virus", Status: Completed. (2003). Biology, Texas State University.
Student(s): Brian Scott, Graduate, MS.

Supervisory Committee, Master's Thesis, "Molecular identification, phylogeny and systematics of Haemogregarina in turtles", Status: Completed. (2003). Biology.
Student(s): Gina Lobban, Graduate, MS.

Member, Master's Thesis, "Microbial Diversity in Desert Springs", Status: Completed. (2003). Midwestern State University.
Student(s): Rebecca Sink, Graduate, MS.

Supervisor / Chair, Independent Study, "Mutagenesis of a Cryptic Gene Downregulated in E. coli Biofilms", Status: Completed. (2002). Texas State University.
Student(s): April Czermerys, Undergraduate, BS.

Supervisor / Chair, Master's Thesis, "Biofilm-Induced Gene Expression in Chemostat Grown Escherichia coli as Determined by a Gene Array", Status: Completed. (2000 - 2002). Texas State University.
Student(s): Kerry Fuson, Graduate.

Supervisory Committee, Master's Thesis, "Isolation and sequencing of the cDNA encoding a-actinin 3 in rat skeletal muscle", Status: Completed. (2001). Biology.
Student(s): Jack Needham, Graduate, MS.

Member, Master's Thesis, "Cytoskeletal changes in epithelial cells during the symbiotic infection of Euprymna scolopes by Vibrio fischeri", Status: Completed. (2001). Biology.
Student(s): Pamela White, Graduate, MS.

Supervisory Committee, Master's Thesis, "Calcium dynamics in a subtropical impoundment", Status: Completed. (2001). Biology.
Student(s): Thomas Allemand, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Acyl Homoserine Lactone Recruitment of Bacteria Into Biofilms", Status: Completed. (1998 - 2001). Biology, Texas State University.
Student(s): M Katy Windham, Graduate, MS.

Supervisor / Chair, Independent Study, "Acyl Homoserine Lactone Recruitment of Bacteria into Biofilms", Status: Completed. (2000). Biology, Texas State University.
Student(s): Angela Roth, Undergraduate.

Supervisor / Chair, Non Thesis, Status: Completed. (2000). Texas State University.
Student(s): Maricela Arias-Cantu, Graduate, MS.

Member, Master's Thesis, "Bacteriophage T4 replication in an aquatic biofilm", Status: Completed. (2000). Biology, Texas State University.
Student(s): Brian Corbin, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Effect of relA and spoT deletions on Escherichia coli biofilm formation", Status: Completed. (2000). Biology, Texas State University.
Student(s): Grant Balzer, Graduate, MS.

Supervisory Committee, Master's Thesis, "Use of the MTT cell viability assay to determine antiviral activity", Status: Completed. (2000). Biology.
Student(s): Gregory Southard, Graduate, MS.

Supervisor / Chair, Independent Study, "Screening Compounds For Their Ability to Inhibit Biofilms", Status: Completed. (1999 - 2000). Texas State University.
Student(s): Matthew Garner, Undergraduate.

Supervisor / Chair, Non Thesis, Status: Completed. (1999 - 2000). Texas State University.
Student(s): James Jankowski, Graduate, MS.

Member, Master's Thesis, "Bacteriophage T4 replication in an aquatic biofilm", Status: Completed. (August 1998 - May 2000). Biology, Texas State University.
Student(s): Brian Corbin, Graduate, MS.

Additional Comments: Co-supervisor

Member, Dissertation, "Factors and forces involved in the initial events of bacterial adhesion as monitored by atomic force microscopy", Status: Completed. (1999). Chemical Engineering, University of Texas.
Student(s): Anneta Razatos, Doctoral, PhD.

Supervisor / Chair, Honor's Thesis, "Using Transposon Mutagenesis to Analyze Antibiotic Resistance in Pseudomonas aeruginosa Biofilms", Status: Completed. (1999). Texas State University.
Student(s): Amy Primmer, Undergraduate, BS.

Supervisor / Chair, Independent Study, "The Effects of Ultraviolet Radiation on Cryptobiotic Soil Crusts", Status: Completed. (1999). Biology, Texas State University.
Student(s): James Jankowski, Graduate, MS.

Supervisor / Chair, Independent Study, "Undergraduate Microbiology Lab Manual", Status: Completed. (1999). Biology, Texas State University.
Student(s): Lawrence Smith, Graduate, MS.

Supervisor / Chair, Non thesis Masters, Status: Completed. (1997 - 1999). Biology, Texas State University.
Student(s): Lawrence Smith, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Investigation of Bacterial Fragmentation as a Possible Origin of Nanobacteria", Status: Completed. (1997 - 1999). Biology, Texas State University.
Student(s): Sabitha Prabhakaran, Graduate, MS.

Member, Applied Research Project, "Nanobacterial Formation of Kidney Stones", Status: Completed. (1998). Urology, University of Texas Health Science Center in San Antonio.
Student(s): Patricia Parker, Doctoral, MD.

Member, Applied Research Project, "Nanobacteria and Kidney Stones", Status: Completed. (1998). Urology, University of Texas Health Science Center in San Antonio.
Student(s): Scott Spore, Undergraduate, MD.

Supervisor / Chair, Independent Study, "Microbial Resistance to Sodium Azide", Status: Completed. (1998). Texas State University.
Student(s): Jeff Padgett, Graduate, MS.

Supervisory Committee, Independent Study, "Microbiology literature review", Status: Completed. (1998).
Student(s): Karen Lord, Graduate, MS.

Supervisor / Chair, Independent Study, "Leaf Decomposition by Edward's Aquifer Fungi", Status: Completed. (1998). Biology, Texas State University.
Student(s): Leslie Harper, Graduate, MS.

Supervisor / Chair, Non Thesis, Status: Completed. (1998). Texas State University.
Student(s): Leslie Harper, Graduate, MS.

Member, Dissertation, "Nannobacteria and mineral formation". (1997 - 1998). University of Texas.
Student(s): M Rahnis, Graduate.
Additional Comments: Student withdrew from program

Supervisor / Chair, Independent Study, "Diversity of Acyl Homoserine Lactone, Quorum Signaling Molecules in Mixed Population Biofilms". (1997 - 1998). Texas State University.
Student(s): H. Larson, Graduate.

Supervisory Committee, Master's Thesis, "Synergistic effects of pokeweed antiviral protein in combination with guanidine and ribavirin on the replication of Newcastle disease virus", Status: Completed. (1997 - 1998). Biology, Texas State University.
Student(s): Devon Murphy, Graduate, MS.

Supervisory Committee, Master's Thesis, "The external structure of the head of Struthiolipeurus struthionis (Gervais 1844) with particular reference to the clypeus : an investigation of the relationship between the parasite and its host's (Struthio camelus l.) feather", Status: Completed. (1997 - 1998). Biology, Texas State University.
Student(s): Jodie Rappe, Graduate, MS.

Supervisor / Chair, Major professor-course-based Masters, Status: Completed. (1996 - 1998). Biology, Texas State University.
Student(s): Leslie Harper, Graduate, MS.

Supervisor / Chair, Master's Thesis, "The role of rpoS in the formation of Escherichia coli biofilms", Status: Completed. (1996 - 1998). Biology, Texas State University.
Student(s): Jennifer Adams, Graduate.

Supervisor / Chair, Master's Thesis, "Isolation, Culturing and Characterization of Nannobacteria", Status: Completed. (1995 - 1998). Biology, Texas State University.
Student(s): Heidi Knowles, Graduate, MS.

Member, Master's Thesis, "Bacterial Precious Metal Recovery", Status: Completed. (1993 - 1998). Mining Engineering, Queen's University, Kingston, ON.
Student(s): Peter Khu, Graduate, MSc (Eng).

Supervisory Committee. (1997). Texas State University.
Student(s): H.M Sung, Graduate.

Supervisor / Chair, Independent Study, "In Vitro Culture and Preparation of Antigen for Serodiagnosis of Ehrlichia chaffeensis infection", Status: Completed. (1997). Biology, Texas State University.
Student(s): L.K Marengo, Graduate, MS.

Supervisory Committee, Master's Thesis, "Synergistic effect of pokeweed antiviral protein on the replication of influenza A virus and Newcastle disease virus", Status: Completed. (1995 - 1997). Biology, Texas State University.
Student(s): Eric Weaver, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Effects of Nutrient Limitation and Species Composition on Biofilm Development and Susceptibility to Iodine Disinfection", Status: Completed. (1995 - 1997). Biology, Texas State University.
Student(s): Marvin Whiteley, Graduate, MS.

Supervisory Committee, Master's Thesis, "Localization of cytoskeletal elements in teleost retinal pigment epithelium", Status: Completed. (1994 - 1997). Biology, Texas State University.
Student(s): David Zamora, Graduate, MS.

Supervisor / Chair, Honor's Thesis, "Efficiency of Latex Gloves as Barriers to Bacterial and Viral Pathogens", Status: Completed. (1996). Texas State University.
Student(s): Erica Hughes, Undergraduate, BS.

Supervisor / Chair, Honor's Thesis, "Bacterial Biofilm-Associated Infection in Indwelling Medical Devices", Status: Completed. (1996). Texas State University.
Student(s): Hilary Bates, Undergraduate, BS.

Supervisor / Chair, Independent Study, "Stationary Phase Genes and Escherichia coli Biofilms", Status: Completed. (1996). Biology, Texas State University.
Student(s): Erin Brown, Undergraduate.

Supervisor / Chair, Independent Study, "Role of Biofilms as Reservoirs for Coliform Populations in Streams". (1996). Texas State University.
Student(s): T.M Schoeneweis, Graduate.

Supervisory Committee. (1995 - 1996). Texas State University.
Student(s): H.Y Li, Graduate.

Supervisor / Chair, Master's Thesis, "Parameters Affecting the Conformationof N-acetylneuraminic acid, Escherichia coli K1 Capsular Polysaccharide", Status: Completed. (1994 - 1996). Biology, Texas State University.
Student(s): Mary Kay Koenig, Graduate.

Supervisor / Chair, Course-based MS, Status: Completed. (1994 - 1996). Biology, Texas State University.
Student(s): Tati Schoeneweis, Graduate, MS.

Co-supervisor (with GR Upchurch), Honor's Thesis, "Role of Bacterial Biofilms in Leaf Fossilization", Status: Completed. (1995). Texas State University.
Student(s): Kristi Dunn, Undergraduate, BS.

Supervisor / Chair, Independent Study, "Isolation of Biofilm Forming Bacteria from the Edwards Aquifer". (1995). Texas State University.
Student(s): D. Andrewartha, Undergraduate.

Supervisory Committee. (1995). Texas State University.
Student(s): J. Kemp, Graduate.

Supervisory Committee. (1995).

Student(s): L. Nunn, Graduate.

Supervisory Committee. (1993 - 1995). Texas State University.
Student(s): J. Leuzinger, Graduate.

Member, Master's Thesis, "Silver-platinum Multilayer Thin Films as Antimicrobial Coatings for Catheters", Status: Completed. (1992 - 1995). Physics, Queen's University, Kingston, ON.
Student(s): Peter Vincent, Graduate, MSc (Eng).

Supervisor / Chair, Honor's Thesis, "Precautions in Dentistry against HIV Spread", Status: Completed. (1994). Texas State University.
Student(s): Mario Delgado, Undergraduate, BS.

Supervisor / Chair, Independent Study, "Colonization Behavior of Urinary and Gastrointestinal Escherichia coli isolates". (1994). Texas State University.
Student(s): D. McCarty, Undergraduate.

Supervisor / Chair, Independent Study, "Influence of Metal ions on Bacterial Capsule Structure". (1994). Texas State University.
Student(s): P.A White, Graduate.

Supervisor / Chair, Independent Study, "Production of Acapsular mutants of Proteus mirabilis". (1994). Texas State University.
Student(s): R. Routh, Undergraduate.

Supervisory Committee. (1994). Texas State University.
Student(s): K. Quinonez, Undergraduate.

Member, Master's Thesis, "The Effects of Synergistic and Antagonistic Combinations of Guanidine HCl and Pokeweed Antiviral Protein on the Replication of a Guanidine-Resistant Poliovirus Mutant", Status: Completed. (1993 - 1994). Biology, Texas State University.
Student(s): K. McFarlane, Graduate.

Member, Master's Thesis, "Development of Inductively-Coupled Plasma-Mass Spectrometry for Soil Analysis", Status: Completed. (1991 - 1994). Chemistry, Queen's University, Kingston, ON.
Student(s): Anthony Persaud, Graduate, MS.

Supervisor / Chair, Honor's Thesis, "Bacterial Enhancement of Gold Recovery", Status: Completed. (1992). Queen's University, Kingston, ON.
Student(s): Peter T Khu, Undergraduate, BSc (Eng).

Supervisor / Chair, Independent Study, "Repeated Use of Bacillus subtilis Cell Walls to Immobilize Copper Ions". (1992). Queen's University, Kingston, ON.

Student(s): A.M Campbell, Undergraduate.

Supervisor / Chair, Master's Thesis, "Isolation and Characterization of the Capsule of Proteus mirabilis and its Role in Kidney Stone Formation", Status: Completed. (1989 - 1992). Microbiology & Immunology, Queen's University, Kingston, ON.
Student(s): Anita Dumanski, Graduate, MS.

Supervisor / Chair, Independent Study, "Use of Bacillus subtilis Cell Walls for Copper Removal from Sea Water". (1991). Queen's University, Kingston, ON.
Student(s): L.E Bickerton, Undergraduate.

Supervisor / Chair, Independent Study, "Media for the Characterization and Isolationof Proteus mirabilis capsule". (1990). Queen's University, Kingston, ON.
Student(s): A.J Dumanski, Undergraduate.

Supervisor / Chair, Independent Study, "Use of Bacillus subtilis cell walls to Selectively Bind Copper from Sea Water". (1990). Queen's University, Kingston, ON.
Student(s): P.T Khu, Undergraduate.

D. Courses Prepared and Curriculum Development:

Microbial Physiology and Genetics (Bio 4447/7447), First Time Course Preparation, Texas State University: 2007 - Present.

Pathogenic Microbiology (Bio 4445/5445), First Time Course Preparation, Texas State University: 1994 - 2014.
Additional Comments: Updated 20 yr. old laboratory and course
Published course notes with bookstore
Assigned royalties to microbiology scholarships

Medical Microbiology (Bio 4350G/5350G), First Time Course Preparation, Texas State University: 2011.
Additional Comments: Developed lecture-only course due to enrollment pressures on Bio 4445/5445.

Microbiology (BIO 3440, now 2400), First Time Course Preparation, Texas State University: 1993 - 2010.
Additional Comments: Updated 20 yr. old laboratory and course Published course notes with McGraw-Hill
Assigned royalties to microbiology scholarships

Topics in Physiology (Bio 5350), First Time Course Preparation, Texas State University: 2006.
Additional Comments: Developed and taught course in microbial physiology and genetics.

Topics in Physiology (Bio 5350), First Time Course Preparation, Texas State University: 1997.

Additional Comments: Developed and taught course in microbial physiology and genetics.

Microbial Ecology (Bio 4446/5446), First Time Course Preparation, Texas State University: 1995 - 1997.

F. Other:

PhD examination, IT Baloyi, Dept. Biochemistry, Genetics, and Microbiology, University of Pretoria, PhD thesis examination, IT Baloyi, University of Pretoria, South Africa. (October 21, 2022).

PhD thesis external examiner, PhD Examination, Tan Kian Hin, University of Malaya, University of Malaya, Malaysia. Kuala Lumpur, Malaysia. (2017).

Student Accomplishments:

Award:

Mentor, Outstanding Graduate Student College of Science. "Designing and Optimizing a Biofilm Experiment for Space Flight." Status: Completed. (April 2019). Biology, Texas State University.
Student(s): Starla Thornhill, Doctoral, PhD.

Mentor, People's Choice Award. "Biofilm Growth and Control in Spaceflight," Texas State University 3 Minute Thesis Competition, Texas State University. Status: Completed. (2017). Texas State University.
Student(s): Starla Thornhill, Doctoral, PhD.

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

1. Books:

b. Textbooks:

Refereed:

Barton, L. L., & McLean, R. J. C. (2019). *Environmental Microbiology and Microbial Ecology*. Hoboken, NJ, USA: John Wiley & Sons, Inc.

c. Edited Books:

Refereed:

McLean, R. J. C., & Decho, A. W. (2002). *Molecular ecology of biofilms*. Wymondham, UK: Horizon Scientific Press.

Veliky, I. A., & McLean, R. J. C. (1994). *Immobilized biosystems theory and practical applications*. Glasgow, Scotland: Blackie Academic and Professional.

d. Chapters in Books:

Refereed:

Yang, J., Thornhill, S. G., Barrila, J., Nickerson, C. A., Ott, C. M., & McLean, R. J. C. (2018). Microbiology of the Built Environment in Spacecraft Used for Human Flight. In *Methods in Microbiology*. New York: Elsevier Publishing. https://doi.org/10.1016/bs.mim.2018.07.002

Thornhill, S. G., & McLean, R. J. C. (2018). Use of Whole-Cell Bioassays for Screening Quorum Signaling, Quorum Interference, and Biofilm Dispersion. In *Quorum sensing methods and protocols* (2nd ed., Vol. 1673, pp. 3–24). Clifton, N.J.: Springer Publishing. https://doi.org/10.1007/978-1-4939-7309-5_1

McLean, R. J. C., & Kirkland, B. L. (2014). Nanostructures and Nanobacteria. In *Nanomicrobiology* (pp. 1–10). Springer New York. https://doi.org/10.1007/978-1-4939-1667-2_1https://doi.org/10.1007/978-1-4939-1667-2_1

Chu, W., Vattem, D. A., Maitin, V., Barnes, M. B., & McLean, R. J. C. (2011). Bioassay of quorum sensing compounds using Agrobacterium tumefaciens and Chromobacterium violaceum. In K. P. Rumbaugh (Ed.), *Quorum sensing methods and protocols* (pp. 3–19). Humana Press.

Chu, W., Vattem, D. A., Maitin, V., Barnes, M. B., & McLean, R. J. C. (2011). Bioassays of quorum sensing compounds using Agrobacterium tumefaciens and Chromobacterium violaceum. In K. P. Rumbaugh (Ed.), *Quorum sensing methods and protocols* (Vol. 692, pp. 3–19). Clifton, NJ: Humana Press. https://doi.org/10.1007/978-1-60761-971-0

McLean, R. J. C., Bryant, S. A., Vattem, D. A., Givskov, M., Rasmussen, T. B., & Balaban, N. (2008). Detection In Vitro of Quorum-Sensing Molecules and Their Inhibitors. In N. Balaban (Ed.), *The Control of Biofilm Infections by Signal Manipulation* (pp. 39–50). Heidelberg: Springer-Verlag.

McLean, R. J. C., Bates, C. L., McGowin, C. L., Barnes, M. B., & Aron, G. M. (2004). Methods for studying biofilms. In M. Ghannoum & G. A. O'Toole (Eds.), *Microbial Biofilms* (pp. 379–413). Washington, DC: American Society for Microbiology.

McLean, R. J. C. (2002). An overview of biofilm molecular ecology. In R. J. C. McLean & A. W. Decho (Eds.), *Molecular ecology of biofilms* (pp. 1–21). Wymondham, UK: Horizon Scientific Press.

Morris, C. E., Barnes, M. B., & McLean, R. J. C. (2002). Biofilms on Leaf Surfaces: Implications for the Biology, Ecology and Management of Populations of Epiphytic Bacteria. In S. E. Lindow, E. L. Hecht-Poiner, & V. J. Elliot (Eds.), *Phyllosphere Microbiology* (pp. 139–155). St. Paul, MN: American Phytopathological Society.

McLean, R. J. C., Nickel, J. ., & Olson, M. . (1995). Biofilm associated urinary tract infections. In H. . Lappin-Scott & J. . Costerton (Eds.) (pp. 261–273). Cambridge, UK: Cambridge University Press.

McLean, R. J. C., & Beveridge, T. J. (1990). Metal binding capacity of bacterial surfaces and their ability to form mineralized aggregates. In H. L. Ehrlich & C. L. Brierley (Eds.), *Microbial mineral recovery* (pp. 185–222). New York: McGraw-Hill.

Non-refereed:

Chu, W., Vattem, D. A., Maitin, V., Barnes, M. B., & McLean, R. J. C. (2011). Bioassays of Quorum Sensing Compounds Using Agrobacterium tumefaciens and Chromobacterium violaceum. In *Methods in Molecular Biology* (pp. 3–19). Humana Press. https://doi.org/10.1007/978-1-60761-971-0_1http://dx.doi.org/10.1007/978-1-60761-971-0_1

McLean, R. J. C., Bryant, S. A., Vattem, D. A., Givskov, M., Rasmussen, T. B., & Balaban, N. (2008). Detection In Vitro of Quorum-Sensing Molecules and Their Inhibitors. In *Springer Series on Biofilms* (pp. 39–50). Springer Berlin Heidelberg. https://doi.org/10.1007/7142_2007_008http://dx.doi.org/10.1007/7142_2007_008

McLean, R. J. C., Nickel, J. C., & Olson, M. E. (1995). Biofilm Associated Urinary Tract Infections. In *Microbial Biofilms* (pp. 261–273). Cambridge University Press.

https://doi.org/10.1017/cbo9780511525353.018http://dx.doi.org/10.1017/cbo9780511525353.018

McLean, R. J. C., Caldwell, D. E., & Costerton, J. W. (1994). Biofilms, Naturally Occurring Communities of Immobilized Cells. In *Immobilized Biosystems* (pp. 289–335). Springer Netherlands. https://doi.org/10.1007/978-94-011-1334-2_5https://doi.org/10.1007/978-94-011-1334-2_5

2. Articles:

a. Refereed Journal Articles:

Koroli, S., Buss, K., Blain, J. M., Nakka, G. S., Hong, M., McLean, R. J. C., … Yang, J. (2024). Draft Genome Sequence of Sphingomonas paucimobilis strain Sph 5, isolated from tap water filtration membrane. *Microbiology Resource Announcements*. Published. https://doi.org/10.1128/MRA.00345-23

Ranson, T. M., Barton, M. E., & McLean, R. J. C. (2023). Influence of Central Metabolism Disruption on Escherichia coli Biofilm Formation. *Canadian Journal of Microbiology*, *69*(11), 432–438. https://doi.org/http://dx.doi.org/10.1139/cjm-2023-0096

Goeres, D. M., Velez-Justiniano, Y.-A., Veno Kjellerup, B., & McLean, R. J. C. (2023). Biofilm and human spaceflight. *Biofilm*. Published. https://doi.org/doi.org/10.1016/j.bioflm.2023.100150

Castro, C. L., Velez-Justiniano, Y.-A., Stahl-Rommel, S., Nguyen, H. N., Almengor, A., Dunbar, B., … Castro-Wallace, S. L. (2023). Genome Sequences of Bacteria Isolated from the International Space Station Water Systems. *Microbiology Resource Announcements*. Published. https://doi.org/10.1128/mra.00158-23

Yang, J., Barrila, J., Ott, C. M., King, O., Bruce, R., McLean, R. J. C., & Nickerson, C. A. (2021). Longitudinal characterization of multispecies microbial populations recovered from spaceflight potable water. *Npj Biofilms Microbiomes*, *7*, 70. https://doi.org/10.1038/s41522-021-00240-5

McLean, R. J. C., & Brown, E. T. (2020). Potential Influences of Bacterial Cell Surfaces and Nano-Sized Cell Fragments on Struvite Biomineralization. *Crystals*, *10*(8), 706. https://doi.org/10.3390/cryst10080706http://dx.doi.org/10.3390/cryst10080706

Zea, L., McLean, R. J. C., Rook, T. A., Angle, G., Carter, D. L., Delegard, A., … Velez Justiniano, Y. A. (2020). Potential biofilm control strategies for extended spaceflight missions. *Biofilm*, *2*, 100026. https://doi.org/10.1016/j.bioflm.2020.100026http://dx.doi.org/10.1016/j.bioflm.2020.100026

Zhu, W., Zhou, S., Chu, J., McLean, R. J. C., & Chu, W. (2020). Prebiotic, immuno-stimulating and gut microbiota-modulating effects of Lycium barbarum polysaccharide. *Biomedicine and Pharmacotherapy*, *121*, 109591. https://doi.org/10.1016/j.biopha.2019.109591

Zhang, B., Zhuang, X., Gao, L., McLean, R. J. C., & Chu, W. (2019). Recombinant AHL-lactonase AiiAQSI-1 attenuates Aeromonas hydrophila virulence factors, biofilm formation and reduces mortality in Crucian Carp. *Marine Drugs*, *17*, 499. https://doi.org/doi:10.3390/md17090499

Thornhill, S. G., Kumar, M., Vega, L. M., & McLean, R. J. C. (2017). Cadmium ion inhibition of quorum signalling in Chromobacterium violaceum. *Microbiology (Reading, England)*, *163*(10), 1429–1435. https://doi.org/10.1099/mic.0.000531

Pringle, S. L., Palmer, K. L., & McLean, R. J. C. (2017). Indole production provides limited benefit to Escherichia coli during co-culture with Enterococcus faecalis. *Archives of Microbiology*, *199*(1), 145–153. https://doi.org/10.1007/s00203-016-1289-2

Stephan, K., McLean, R. J. C., DeLeon, G., & Melnikov, V. (2016). Effect of feed-gas humidity on nitrogen atmospheric-pressure plasma jet for biological applications. *Technology and Health Care*, *24*(6), 943–948. https://doi.org/10.3233/THC-161226

Chu, W., & McLean, R. J. C. (2016). Quorum Signal Inhibitors and Their Potential Use against Fish Diseases. *Journal of Aquatic Animal Health*, *28*(2), 91–6. https://doi.org/10.1080/08997659.2016.1150907

Robertson, S. R., & McLean, R. J. C. (2015). Beneficial biofilms. *AIMS Bioengineering*, *2*(4), 437–448. https://doi.org/10.3934/bioeng.2015.4.437

Hidalgo-Romano, B., Gollihar, J., Brown, S. A., Whiteley, M., Valenzuela, Jr, E., Kaplan, H. B., … McLean, R. J. C. (2014). Indole inhibition of N-acylated homoserine lactone-mediated quorum signalling is widespread in Gram-negative bacteria. *Microbiology (Reading, England)*, *160*(11), 2464–73. https://doi.org/10.1099/mic.0.081729-0

Coulter, L. B., McLean, R. J. C., Rohde, R. E., & Aron, G. M. (2014). Effect of bacteriophage infection in combination with tobramycin on the emergence of resistance in Escherichia coli and Pseudomonas aeruginosa biofilms. *Viruses*, *6*(10), 3778–86. https://doi.org/10.3390/v6103778https://api.elsevier.com/content/abstract/scopus_id/84908237470

McLean, R. J. C. (2014). Normal bacterial flora may inhibit Candida albicans biofilm formation by Autoinducer-2. *Frontiers in Cellular and Infection Microbiology*, *4*, 117. https://doi.org/10.3389/fcimb.2014.00117

Taylor, A. A., Aron, G. M., Beall, G. W., Dharmasiri, N., Zhang, Y., & McLean, R. J. C. (2014). Carbon and clay nanoparticles induce minimal stress responses in gram negative bacteria and eukaryotic fish cells. *Environmental Toxicology*, *29*(8), 961–8. https://doi.org/10.1002/tox.21824

Vega, L. M., Alvarez, P. J., & McLean, R. J. C. (2014). Bacterial signaling ecology and potential applications during aquatic biofilm construction. *Microbial Ecology*, *68*(1), 24–34. https://doi.org/10.1007/s00248-013-0321-1http://dx.doi.org/10.1007/s00248-013-0321-1

Vega, L. M., Mathieu, J., Yang, Y., Pyle, B. H., McLean, R. J. C., & Alvarez, P. J. J. (2014). Nickel and cadmium ions inhibit quorum sensing and biofilm formation without affecting viability in Burkholderia multivorans. *International Biodeterioration and Biodegradation*, *91*, 82–87. https://doi.org/10.1016/j.ibiod.2014.03.013https://api.elsevier.com/content/abstract/scopus_id/84898616563

McLean, R. J. C., & Kakirde, K. S. (2013). Enhancing metagenomics investigations of microbial interactions with biofilm technology. *International Journal of Molecular Sciences*, *14*(11), 22246–22257. https://doi.org/10.3390/ijms141122246

McLean, R. J. C., & Pringle, S. L. (2013). Identifying bacterial menu choices from the host buffet during infections. *Journal of Bacteriology*, *195*(22), 4989–4990. https://doi.org/10.1128/JB.01040-13https://api.elsevier.com/content/abstract/scopus_id/84887261360

McLean, R. J. C., Lam, J. S., & Graham, L. L. (2012). Training the biofilm generation - A Tribute to J. W. Costerton. *Journal of Bacteriology*, *194*(24), 6706–6711. https://doi.org/10.1128/JB.01252-12https://api.elsevier.com/content/abstract/scopus_id/84870710349

Chu, W., Zere, T. R., Weber, M. M., Wood, T. K., Whiteley, M., Hidalgo-Romano, B., … McLean, R. J. C. (2012). Indole production promotes Escherichia coli mixed-culture growth with Pseudomonas aeruginosa by inhibiting quorum signaling. *Applied and Environmental Microbiology*, *78*(2), 411–419. https://doi.org/10.1128/AEM.06396-11https://api.elsevier.com/content/abstract/scopus_id/84855718021

Kay, M. K., Erwin, T. C., McLean, R. J. C., & Aron, G. M. (2011). Bacteriophage ecology in Escherichia coli and Pseudomonas aeruginosa mixed biofilm communities. *Applied and Environmental Microbiology*, *77*(3), 821–9. https://doi.org/10.1128/AEM.01797-10

Taylor, A. A., Bryant, S. A., & McLean, R. J. C. (2011). Overcoming the challenges associated with laboratory preparation with the help of students, *43*(1), 10–11.

McLean, R. J. C., & McLean, M. A. (2010). Microbial survival mechanisms of relevance to panspermia. *Journal of Cosmology*, *7*, 1802–1820.

McLean, R. J. C. (2010). Planetary protection and missions between Earth and Mars. *Journal of Cosmology*, *12*, 3842–3845.

Nath, S., Aron, G. M., Southard, G. M., & McLean, R. J. C. (2010). Potential for largemouth bass virus to associate with and gain protection from bacterial biofilms. *Journal of Aquatic Animal Health*, *22*(2), 95–101. https://doi.org/10.1577/H09-046.1

Weber, M. M., French, C. L., Barnes, M. B., Siegele, D. A., & McLean, R. J. C. (2010). A previously uncharacterized gene, yjfO (bsmA), influences Escherichia coli biofilm formation and stress response. *Microbiology (Reading, England)*, *156*(Pt 1), 139–47. https://doi.org/10.1099/mic.0.031468-0

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3. Conference Proceedings:

a. Refereed Conference Proceedings:

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10. Other Works in Print:

Corrections:

McLean, R. J. C., Lam, J. S., & Graham, L. L. (2013). *Training the Biofilm Generation-a Tribute to J. W. Costerton (vol 194, pg 6706, 2012)*. *JOURNAL OF BACTERIOLOGY* (11th ed., Vol. 195, pp. 2705–2705). https://doi.org/10.1128/JB.00323-13

Obituarys:

Lam, J. S., Graham, L. L., & McLean, R. J. C. (2012). *Obituary for JW Costerton*. *Canadian Journal of Microbiology* (Vol. 58, pp. III–IV).

Other:

McLean, R. J. C., Bates, C. L., Barnes, M. B., McGowin, C. L., & Aron, G. M. (2004). METHODS OF STUDYING BIOFILMS. In *Microbial Biofilms* (pp. 379–413). Wiley. https://doi.org/10.1128/9781555817718.ch20http://dx.doi.org/10.1128/9781555817718.ch20

Garcia, D. M., & McLean, R. J. C. (2001). *NIH Bridges to the Baccalaureate Program at Southwest Texas State University*. Ellicott, MD, USA: Bridges Program Directors' Meeting.
Additional Comments: García, D. M. (PA/CO)

B. Works Not in Print:

1. Papers Presented at Professional Meetings:

Widmer, J. R., Kumar, M., McLean, R. J. C., ASM Texas branch Meeting., "The Effect of Debaryomyces hansenii on Clostridium difficile Sporulation," ASM, Virtual. (November 6, 2020).

2. Invited Talks, Lectures, and Presentations:

McLean, R. J. C., ASU Discovery Seminar Series “Living in Space: Know Before You Go!”, "Biofilms and Biocorrosion of Life Support Systems in Space," Arizona State University, Freshman Research Class, Tempe, AZ, United States. (January 27, 2023).

McLean, R. J. C., Bioengineering Department seminar, "Polymicrobial biofilm growth and control during spaceflight," King Fahd University of Petroleum and Minerals, Dharan, Saudi Arabia. (October 12, 2022).

McLean, R. J. C., Department of Paraclinical Sciences Seminar, "Biofilm growth and control during spaceflight," Department of Paraclinical Sciences, University of Pretoria, Pretoria South Africa, Department of Paraclinical Sciences, University of Pretoria, Pretoria South Africa, Pretoria, South Africa. (April 13, 2022).

McLean, R. J. C., Biology Seminar, New Mexico Tech University, "Polymicrobial Biofilm Growth and Control During Spaceflight," Department of Biology, New Mexico Tech University, Socorro, NM. (October 2021).

McLean, R. J. C., Department of Chemistry and Biochemistry, Texas State University, "Polymicrobial Biofilm Growth and Control During Spaceflight," San Marcos, TX. (September 2021).

McLean, R. J. C., Biological Sciences seminar, "Polymicrobial Biofilm Growth and Control During Spaceflight," University of North Texas, Dept. Biological Sciences, Denton, TX, United States. (March 2021).

McLean, R. J. C., Montana Biofilm Science and Technology Meeting, "NASA Biofilms in Space session," NASA, Montana State University, Bozeman, MT. (July 18, 2019).

Additional Comments: Resulted in NASA research announcement preparation for biofilm work related to life support systems on long-term flights to the moon and Mars. Also resulted in publication (Zea et al., Biofilms 2: 100026, 2020)

McLean, R. J., Nature Conference on the Microbiology of Human Spaceflight, "Spaceflight Biofilm Testing and Preferential Growth of a Freshwater Bacterium in Microgravity," NASA, Johnson Space Center, Houston. (June 28, 2019).

McLean, R., University of Texas at Arlington, Dept. Biology, "Mixed Culture Bacterial Interactions in Biofilm and Planktonic Communities," University of Texas at Arlington, Arlington, TX. (October 4, 2018).

McLean, R., St. Louis University, Dept. Biomedical Science, "Biofilms and Quorum Sensing," St. Louis University, St. Louis, MO. (September 28, 2018).

McLean, R. J. C., Trinity University, Department of Biology, San Antonio, TX. (2017).

McLean, R. J. C., American Society for Gravitational and Space Research, "Polymicrobial Biofilms: A Widespread Mode of Bacterial Growth," American Society for Gravitational and Space Research, Biofilm Symposium, Seattle, WA, United States. (October 25, 2017).

McLean, R. J. C., San Marcos Baptist Academy, San Marcos, TX. (2016).

McLean, R. J. C., Missouri Valley Branch, American Society for Microbiology, University of Nebraska, Lincoln, NE. (2015).

McLean, R. J. C., Texas Branch, American Society for Microbiology, Sam Houston State, Huntsville, TX. (2015).

McLean, R. J. C., University of Texas at San Antonio, Dept. Civil and Environmental Engineering, University of Texas at San Antonio, Dept. Civil and Environmental Engineering, San Antonio, TX. (2015).

McLean, R. J. C., Rio Grande Branch, American Society for Microbiology, University of Texas, El Paso, El Paso, TX. (2014).

McLean, R. J. C., Rio Grande Branch, American Society for Microbiology, New Mexico Tech, New Mexico Tech University, Socorro, NM. (2013).

McLean, R. J. C., Sul Ross State University, Cottle Lecturer, Dept. Biology, Alpine, TX. (2013).

McLean, R. J. C., University of Texas at Tyler, Dept. Biology. (2013).

McLean, R. J. C., Concordia University, Dept. Biology, Austin, TX. (2012).

McLean, R. J. C., Texas Branch, American Society for Microbiology, Fall Meeting, Baylor University, Waco, TX. (2012).

McLean, R. J. C., Texas State University Graduate Conference, Texas State University-San Marcos, San Marcos, TX. (2012).

McLean, R. J. C., University of Texas at San Antonio, Dept. Civil and Environmental Engineering. (2012).

McLean, R. J. C., Binghamton University, Dept. Biological Sciences, Binghamton, NY. (2011).

McLean, R. J. C., Keynote Speaker, Undergraduate Research Conference, Texas State University-San Marcos. (2011).

McLean, R. J. C., Our Lady of the Lake University, Dept. Biology, San Antonio, TX. (2011).

McLean, R. J. C., Rocky Mountain Branch, American Society for Microbiology, Annual Meeting, Boulder, CO. (2011).

McLean, R. J. C., Texas Commission on Environmental Quality, Sewage Facility Training, New Braunfels, TX. (2011).

McLean, R. J. C., Texas Lutheran University, Dept. Biology, Seguin, TX. (2011).

McLean, R. J. C., University of North Texas, Dept. Biological Sciences, Denton, TX. (2011).

McLean, R. J. C., University of Texas at San Antonio, Department of Biology. (2011).

McLean, R. J. C., Sam Houston State University, Department of Biology. (2010).

McLean, R. J. C., American Society for Microbiology, General Meeting, "Educational aspects of biofilms and quorum signals," Philadelphia, PA. (2009).

McLean, R. J. C., Texas Branch, American Society for Microbiology, Fall 2009 Meeting, "Genes involved in E. coli and P. aeruginosa mixed culture growth," Tyler, TX. (2009).

McLean, R. J. C., American Society for Microbiology, Branch Organization Committee Retreat, Washington, DC. (2008).

McLean, R. J. C., Geological Society of America, Annual Meeting, Houston, TX. (2008).

McLean, R. J. C., Texas Branch American Society for Microbiology, Fall Meeting, "Chemical Ecology of Biofilms," Huntsville, TX. (2007).

McLean, R. J. C., "Interview related to Wilson et al., PNAS article on microgravity-enhanced virulence," New Scientist (UK). (2007).

McLean, R. J. C., Baylor College of Medicine, Department of Virology and Microbiology, Houston, TX. (2006).

McLean, R. J. C., Centro Milstein, Ciudad de Buenos Aires, Buenos Aires, Argentina. (2006).

McLean, R. J. C., Interview resulting in article on panspermia in relation to Icarus publication, New Scientist (UK). (2006).

McLean, R. J. C., Magazine interview resulting in article on panspermia in relation to Icarus publication, Science and Theology News. (2006).

McLean, R. J. C., Newspaper interviews resulting in articles on panspermia in relation to Icarus publication, Baltimore Sun, Houston Chronicle, Austin American-Statesman, and San Antonio Express-News. (2006).

McLean, R. J. C., Radio interview and feature on panspermia in relation to Icarus publication, NPR (National Public Radio). (2006).

McLean, R. J. C., Television interview and feature on panspermia, Ivanhoe Broadcast News. (2006).

McLean, R. J. C., Trinity University, Department of Biology, San Antonio, TX. (2006).

McLean, R. J. C., 106th Annual Meeting, American Society for Microbiology, ""“Academic Careers at a Masters’ Institution," Orlando. (2006).

McLean, R. J. C., Presidential Lecture, Texas State University-San Marcos. (2005).

McLean, R. J. C., State University of New York at Buffalo, Dept. Oral Biology, Buffalo, NY. (2005).

McLean, R. J. C., Texas Branch - American Society for Microbiology, ""Balancing Microbiology Careers and Family"," Denton, TX. (2005).

McLean, R. J. C., Texas Branch - American Society for Microbiology, ""Biofilms in the Environment"," Denton, TX. (2005).

McLean, R. J. C., Texas Branch, American Society for Microbiology, Houston, TX. (2004).

McLean, R. J. C., Texas Woman’s University, Department of Biology. (2004).

McLean, R. J. C., Wimberley Junior High, 6th and 8th grade science classes. (2004).

McLean, R. J. C., "PhD external examiner, Richard Kwasi Amankwah, Dept. Mining Engineering," Queen's University, Kingston, Canada. (2004).

McLean, R. J. C., American Society for Microbiology Conference on Polymicrobial Infections, Lake Tahoe, NV. (2003).

McLean, R. J. C., Agriculture Canada, Lethbridge Research Centre, Lethbridge, Canada. (2003).

McLean, R. J. C., Midwestern State University, Department of Biology, Wichita Falls. (2003).

McLean, R. J. C., Prairie Lea High School, Science classes, Prairie Lea, TX. (2003).

McLean, R. J. C., University of Houston, Department of Biology and Biochemistry, Houston. (2003).

McLean, R. J. C., University of Texas, School of Integrative Biology, Austin, TX. (2003).

McLean, R. J. C., University of Pretoria, Department of Microbiology and Plant Pathology, Pretoria, South Africa. (2002).
Additional Comments: MS thesis external examiner (thesis review done electronically)

McLean, R. J. C., Baylor University, Department of Biology, Waco, TX. (2002).

McLean, R. J. C., Oklahoma State University, Department of Microbiology, Stillwater, OK. (2002).

McLean, R. J. C., Palo Alto College, San Antonio, TX. (2002).

McLean, R. J. C., San Marcos High School, San Marcos, TX. (2002).

McLean, R. J. C., Texas A&M University, Department of Medical Microbiology, College Station, TX. (2002).

McLean, R. J. C., University of Oklahoma, Department of Botany and Microbiology, Norman, OK. (2002).

McLean, R. J. C., Brock University, Department of Biological Sciences, St. Catharines, Canada. (2001).

McLean, R. J. C., Cornell University, Section of Microbiology, Ithaca, NY. (2001).

McLean, R. J. C., Florida International University, Department of Biological Sciences, Miami, FL. (2001).

McLean, R. J. C., KTEP (National Public Radio), El Paso, TX. (2001).
Additional Comments: Radio interview on biofilm research

McLean, R. J. C., Queen's University, Department of Microbiology and Immunology, Kingston, Canada. (2001).

McLean, R. J. C., San Antonio College, Department of Chemistry, San Antonio, TX. (2001).

McLean, R. J. C., Southwest Texas State University, Department of Biology, San Marcos, TX. (2001).

McLean, R. J. C., St. Philip's College, Department of Natural Science, San Antonio, TX. (2001).

McLean, R. J. C., University of Texas at El Paso, Department of Biological Sciences, El Paso, TX. (2001).

McLean, R. J. C., Texas Branch, American Society for Microbiology fall meeting, ""Biofilm Research in Texas"," Corpus Christi, TX. (2000).
Additional Comments: Symposium organizer and speaker.

McLean, R. J. C., Phyllosphere 2000, International Conference on Leaf Surface Microbiology, "“The adaptive significance of microbial biofilms”," Berkeley, CA. (2000).

McLean, R. J. C., Texas Branch, American Society for Microbiology, "Bacterial biofilms in earth and space," Fort Worth, TX. (1999).
Additional Comments: Invited speaker and symposium organizer

McLean, R. J. C., Texas Branch, American Society for Microbiology, "“Bacterial biofilms and their growth on earth and in space”," Junction, TX. (1999).

McLean, R. J. C., 99th Annual Meeting, American Society for Microbiology, "“Cell-cell signaling in bacterial biofilms”," Chicago, IL. (1999).
Additional Comments: Symposium Convenor and speaker

McLean, R. J. C., Arizona State University, Departments of Microbiology and Plant Science, Tempe, AZ. (1998).

McLean, R. J. C., Center for Biofilm Engineering and Department of Microbiology, Montana State University, Bozeman, MT. (1998).

McLean, R. J. C., NASA Johnson Space Center – Life Support Division, Houston, TX. (1998).

McLean, R. J. C., Eighth International Symposium on Microbial Ecology, "Biofilm growth and mineral formation," Halifax, Canada. (1998).
Additional Comments: Biofilm Symposium Convener and participant

McLean, R. J. C., Trinity University, Department of Biology, San Antonio, TX. (1997).

McLean, R. J. C., Advanced Sterilization Products, Irvine, CA. (1995).

McLean, R. J. C., Texas A&M University, Faculty of Nutrition, College Station, TX. (1994).

McLean, R. J. C., ""Effects of Microorganisms on Long-term Nuclear Waste Disposal”," Environment Canada, Toronto, CA. (1993).

3. Consultancies:

Government, National Academies of Science, Engineering, and Medicine, Washington, DC, United States. (2021 - 2023).

Additional Comments: Decadal Review of NASA Research Programs in the Physical and Life Sciences

Academic, Montclair State University, Department of Biology, Montclair, NJ. (March 29, 2018).

Additional Comments: Academic Program Review of Biology

4. Workshops:

McLean, R. J. C., Biofilm Workshop, US Army Research Office, DFW Airport, Arlington, TX. (2008).

5. Other Works not in Print:

c. Other Works Not in Print:

Keynote / Plenary Addresses:

McLean, R. J. C., Rocky Mountain Branch, American Society for Microbiology, "Influence of Indole Production on E. coli Mixed Culture Growth," Metro State University, Denver, CO. (2016).

Posters:

Ghadami, M. (Presenter), Shi, X., McLean, R. J. C., 2022 Society of Engineering Science Annual Technical Meeting,, "Application of microbially induced calcium carbonate precipitation in bio mortar.," College Station, TX. (October 2022).

Patents:

McLean, Robert J C, Robinson, Sara Romayne. "Compositions and methods for dispersing biofilms". International. Other Nations: AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR. Number / ID: 17776750.6-1110 PCT/US2017025306. (Date of Application: 2017).

McLean, Robert J C, Robertson, Sara Romayne. "Compositions and methods for dispersing biofilms". United States. Number / ID: 6583-04801. (Date of Application: 2016).

C. Scholarly / Creative Grants and Contracts:

1. Funded External Grants and Contracts:

Lewis, Karen A (Principal), Kerwin, Sean Michael (Co-Principal), McLean, Robert J C (Co-Principal), Chang, Carolyn T (Supporting), David, Wendi M (Supporting). U-RISE at Texas State, National Institutes of Health - National Institute of General Medical Sciences, Federal, $2,238,578.00. (Funded: April 1, 2021 - March 31, 2026). Grant.

Program_Plan_OVERVIEW_20200630FINAL3-1.pdf
NIH_NOA_1T34GM136483-01A1-1.PDF
5T34GM136483-02-Noa (002)-1.pdf
5T34GM136483-03-Noa (003)-1.pdf

Westerhoff, Paul (Principal), Percent Contribution: 80%, Nickerson, Cheryl A (Co-Principal), Percent Contribution: 10%, McLean, Robert J C (Co-Principal), Percent Contribution: 10%. Collaborative Research: ISS: Biofilm Inhibition with Germicidal Light Side-Emitted from Nano-enabled Flexible Optical Fibers in Water Systems, National Science Foundation, Federal, $380,000.00. (Funded: October 1, 2022 - September 30, 2025). Grant.

Additional Comments: NSF/CASIS Collaboration on Transport Phenomena Research on the International Space Station (ISS) to Benefit Life on Earth

McLean, Robert J C (Principal). Polymicrobial biofilm growth and control during spaceflight, NASA, Federal, $405,570.00. (Funded: September 1, 2022 - August 31, 2025). Grant.

McLean, Robert J C (Principal), Nickerson, Cheryl A (Co-Principal), Barrila, J A (Supporting), Ott, C M (Supporting). Polymicrobial biofilm growth and control during spaceflight, NASA, Federal, $865,793.00. (Funded: December 2016 - December 2022). Grant.

Yang, Jiseon (Principal), Percent Contribution: 90%, McLean, Robert J C (Supporting), Percent Contribution: 5%, Diggle (Georgia Tech), Steve (Supporting), Percent Contribution: 5%. Understanding the evolution of microbial interactions during spaceflight, NASA, Federal, $749,999.00. (Funded: September 1, 2019 - August 31, 2022). Grant.

Shi, Xijun (Principal), McLean, Robert (Co-Principal). MINDS: Alternative Materials for Lunar and Martian Construction, NASA, Federal, $2,500.00. (Funded: December 15, 2020 - April 30, 2021). Grant.

McLean, Robert J C. Polymicrobial biofilm growth and control during spaceflight - supplemental funding, NASA, Federal, $58,614.00. (Funded: January 1, 2020 - December 31, 2020). Grant.

Walter, RB (Principal), McLean, Robert J C (Supporting). Bridges to Biomedicine, NIH, Federal, $308,453.00. (Funded: 2014 - 2018). Grant.

Tate, J (Principal), McLean, Robert J C (Supporting). Texas Regional Alliance to Foster Nanotechnology Environment, Health, and Safety Awareness in Tomorrow's Engineering and Technology Leaders, NSF NanoTRA, $199,917.00. (Funded: 2013 - 2014). Grant.

Garcia, Dana M, McLean, Robert J C (Co-Principal). NIGMS – Research-Oriented Bridges to the Baccalaureate, National Institutes of Health, Federal, $514,773.00. (Funded: 1999 - 2003). Grant.

McLean, Robert J C (Co-Principal). Profiling Bacterial Species' Interactions in Mixed Cultures, Texas Higher Education Coordinating Board ARP, $150,000.00. (Funded: 1998 - 1999). Grant.

2. Submitted, but not Funded, External Grants and Contracts:

Peterson, Ryan Loren, Lewis, Lysle, Du, Liqin, McLean, Robert J C. Fluorescence Microscope with Live-cell and high-resolution imaging capabilities, NIH, Federal, $194,590.30. (Funded: April 1, 2024 - March 30, 2025). Grant.
Corrected SF 424-1.pdf

Shi, Xijun (Co-Principal), McLean, Robert J C (Co-Principal). Construction Materials with Recycle Cements, Bio-organisms, Renewable Materials, and Renewable Polymers for Lower Embodied Carbon and Carbon Sequestration, Federal Highway Administration, Federal, $700,000.00. (Submitted: December 2022). Grant.

Whitten, Steven T (Co-Principal), Lewis, Karen A (Co-Principal), Libich, David S (Co-Principal), Oyajobi, Babatunde O (Co-Principal), Spooner, Melinda H (Supporting), Betancourt, Tania (Supporting), Carlos-Shanley, Camila (Supporting), Du, Liqin (Supporting), Fuess, Lauren Elizabeth (Supporting), Huertas Pau, Maria del Mar (Supporting), Irvin, Jennifer A (Supporting), Jacobs, Michael Isaac (Supporting), Kornienko, Alexander Vladimir (Supporting), Kerwin, Sean Michael (Supporting), Lewis, Lysle (Supporting), Lu, Yuan (Supporting), McLean, Robert J C (Supporting), Ngu, Hee Hiong (Supporting), Peterson, Ryan Loren (Supporting), Schilter, David (Supporting), Shen, Xiaoxi (Supporting), Wang, Lu (Supporting), Xue, Xiaoyu (Supporting). Texas Doctoral Bridge Program, National Institutes of Health, Federal, $3,158,966.00. (Submitted: October 10, 2022). Grant.

McLean, Robert J C (Principal), Percent Contribution: 80%, Rohde, Rodney E (Supporting), Percent Contribution: 10%, CLS Program (Supporting), Percent

Contribution: 10%. Identification of short- and long-term polymicrobial interaction mechanisms in modeled microgravity, NASA, Federal, $300,000.00. (Submitted: 2017, Funded: 2018 - 2021). Grant.

Additional Comments: PI, McLean, RJC & Nickerson, C.(Arizona State co-PI). Identification of short- and long-term polymicrobial interaction mechanisms in modeled microgravity. R. Rohde & CLS Students subcontract to direct antibiotic susceptibility testing. Amount: $300.000 (3y)

Huertas Pau, Maria del Mar (Principal), Asiabanpour, Bahram (Co-Principal), Carlos-Shanley, Camila (Co-Principal), Fritts, Sarah Rebecah (Co-Principal), Dutton, Jessica (Co-Principal), Gabor, Caitlin (Co-Principal), Garcia, Dana M (Co-Principal), Kang, Hong Gu (Co-Principal), Lewis, Karen A (Co-Principal), McLean, Robert J C (Co-Principal), Nowlin, Weston Hugh (Co-Principal). Acquisition of a beta-counter and luminometer MicroBeta2 LumiJET for the efficient establishment of advanced physiological studies in animals and plants., USDA-NIFA-EGP- 10.519, Federal, $125,910.00. (Submitted: July 2020, Funded: January 2021 - March 2021). Grant.

Ozbakkaloglu, Togay (Principal), Tate, Jitendra S (Co-Principal), McLean, Robert J C (Co-Principal), Kim, Namwon (Co-Principal), Miyahara, Yoichi (Co-Principal). Acquisition of state-of-the-art multi-functional characterization devices to support research and education in materials science and engineering, Department of Defense: REP HBCU/MI Equipment/Instrumentation, Federal, $505,586.00. (Submitted: August 27, 2020). Grant.

Hunter, Stacy Denise (Principal), Lewis, Karen A (Supporting), McLean, Robert J C (Co-Principal), Sun, Shuying (Supporting). Yoga and hypertension: Effects of practice temperature on mechanistic outcomes, NIH NCCIH, Federal, $411,125.00. (Submitted: November 2019). Grant.

Wistey, Mark A (Principal), Rhodes, Christopher Peter (Co-Principal), Piner, Edwin L (Co-Principal), Theodoropoulou, Nikoleta (Co-Principal), Betancourt, Tania, Garcia, Dana M (Supporting), Beall, Gary W (Supporting), Myers, Thomas H (Supporting), Holtz, Mark W (Supporting), Droopad, Ravindranath (Supporting), Geerts, Wilhelmus J (Supporting), Irvin, Jennifer A (Supporting), Zakhidov, Alexander (Supporting), McLean, Robert J C (Supporting). MRI: Acquisition of Transmission Electron Microscope for Linking Integrated Materials Education and Research (ATELIER), Federal, $1,526,000.00. (Submitted: February 2018). Grant.

3. Funded Internal Grants and Contracts:

McLean, Robert J C, Tesic, Jelena. Automating Microbial Biofilm Corrosion Analysis Using Semantic Segmentation for Enhanced Space Mission Safety, Texas State University, $16,000.00. (Submitted: October 2, 2023, Funded: January 2024 - December 2024). Grant.

Additional Comments:
https://www.txst.edu/research/oera/rep/rep-awardees.html

McLean, Robert J C. Evolutionary Changes in Bacteria Due to Spaceflight, Texas State University, $8,000.00. (Funded: January 2022 - August 2023). Sponsored Research.

4. Submitted, but not Funded, Internal Grants and Contracts:

Shi, Xijun, McLean, Robert J C (Co-Principal), Alkire, Linda (Co-Principal). Biocementation for Lunar and Martian Construction, Texas State University, Texas State University, $29,796.00. (Submitted: February 2022). Grant.

Shi, Xijun, McLean, Robert J C, Alkire, Linda. Living Building Materials for Lunar and Martian construction, Multi-disciplinary Internal Research Grant (MIRG), Texas State University, $29,796.00. (Submitted: January 2021). Sponsored Research.

D. Scholarly / Creative Fellowships, Awards, Honors:

Fellowship Recipient: Fellow, American Academy of Microbiology.
February 16, 2021 - Present

Additional Comments: Dear Dr. Robert McLean,
I am delighted to inform you that you have been elected to Fellowship in the American Academy of Microbiology. The Academy, the honorific leadership group within the American Society for Microbiology, recognizes excellence, originality, service and leadership in the microbial sciences. As a nominee, you were strongly supported by your nominators. After a stringent 2-round review process, the Academy's Sub-Committee on Elections to Fellowship recommended you, and the Governors reviewed and certified the decision to elect you to the Academy. You are among the top 65 fellows who are elected into the Academy this year. Your election to the Academy this year is a mark of distinction. Congratulations!
An official press release listing the 2021 Fellowship class will be posted on the Academy website on February 16th 5:00 pm EST.
You will soon receive by email more information about the Academy. Academy Fellows are eminent leaders in the field of microbiology and are relied upon for authoritative advice and insight on critical issues in microbiology. I look forward to your participation in the Academy's activities.
Sincerely,

Arturo Casadevall, MD, PhD
Chair, Governors of the American Academy of Microbiology

Award / Honor Recipient: Regents' Professor, Texas State University System.
November 16, 2012

F. Media Recognition:

Internet, NASA-TV. (December 2, 2020).

Additional Comments: Part of press release describing Bacterial Adhesion and Corrosion (BAC) experiment that launched on Space X-21 (Dec 6, 2020).

https://images.nasa.gov/details-KSC-20201202-MH-GEB01-0001-CRS_21_Broll_Brain_Organoids_Bacterial_Adhesion_and_Corrosion_Micro_14-3264276

This footage was used in a video during the Prelaunch News Conference and that video was shared by NASA on Twitter:
https://twitter.com/NASA/status/1334972891864055813

Newspaper, Houston Chronicle. (February 24, 2006).

Additional Comments: Covered recovery of a microorganism from the wreckage of the space shuttle Columbia (STS-107), and possible implications in panspermia.

Newspaper, Baltimore Sun. (January 27, 2006).

Additional Comments: Covered recovery of microbial culture from wreckage of space shuttle Columbia (STS-107) and the possible implications in interplanetary spread of life (panspermia).

Newspaper, San Antonio Express-News. (February 2003).

Additional Comments: Covered experiment loss on space shuttle Columbia (STS-107) due to crash during reentry.

Newspaper, San Marcos Daily Record. (February 4, 2003).

Additional Comments: Covered lost microbiology experiment due to crash of space shuttle Columbia (STS-107).

Newspaper, Daily Texan. (October 19, 1999).

Additional Comments: Interviewed for perspective on small bacteria-shaped objects (nannobacteria) that extend the smallest limit of life.

Newspaper, Dallas Morning News. (August 16, 1999).

Additional Comments: Fairly comprehensive article about importance of biofilms. The writer contacted many internationally-recognized scientists studying this form of bacterial growth. I (RJC McLean) was one person interviewed and cited.

Newspaper, Austin American Statesman. (November 12, 1998).

Additional Comments: Covered student microbiology experiment that flew on space shuttle with John Glenn.

Newspaper, Austin American-Statesman. (October 1998).

Additional Comments: Covered pending experiment on space shuttle flight with John Glenn (STS 95).

Newspaper, San Antonio Express-News. (October 30, 1998).

Additional Comments: Covered upcoming student microbiology experiment to be flown on space shuttle with John Glenn (STS-95).

Newspaper, Houston Chronicle. (October 25, 1998).

Additional Comments: Covered upcoming student microbiology experiment to be flown on space shuttle (STS-95) with John Glenn.

Newspaper, San Marcos Daily Record. (October 15, 1998).

Additional Comments: Covered upcoming student microbiology experiment to be flown on space shuttle with John Glenn (STS-95).

TV, KXAN Austin. (November 12, 1998).

Additional Comments: Covered microbiology experiment with students that flew on space shuttle with John Glenn (STS-95)

IV. SERVICE

A. Institutional

1. University:

Chair, Institutional Biosafety Committee. (2008 - September 2021).

Co-Chair, Faculty Development. (June 1, 2017 - May 31, 2020).

Additional Comments: Assistant Director of Faculty Development

Member, Academic Program Review (Philosophy Department). (2016).

Represented Texas State - a non-geography representative, Academic Program Review (Geography Department). (2013).

Member, Nomination Committees for Presidential Awards, Presidential Lecture. (2005 - 2009).

Chair, Nomination Committees for Presidential Awards, Presidential Lecture. (2007).

Member, Nomination Committees for Presidential Awards,Scholarly/Creative Activity. (2005 - 2007).

Member, Nomination Committees for Presidential Awards, Service. (2003 - 2005).

Member, Research Planning Committee. (2003).

Presidential Fellow. (2001 - 2003).

Member, Nomination Committees for Presidential Awards, Scholarly/Creative Activity. (2001 - 2003).

Member, Committee of Inquiry. (2002).

Member, Operations Board, TX State Institute for Environmental and Industrial Science (IEIS. (1995 - 2000).

2. College:

Member, Homecoming Committee College Review Group. (2011 - 2013).

Member, College Promotion and Tenure Task Force. (2007 - 2008).

Member, Homecoming Committee College Review Group. (2005 - 2007).

Member, Homecoming Committee College Review Group. (1996).

3. Department/School:

Member, Budget Committee. (2001 - Present).

Member, Personnel Committee. (1998 - Present).

Member, Faculty Search Committees. (1996 - Present).

Chair, Budget Committee. (2007 - 2013).

Chair, Personnel Committee. (2006 - 2012).

Member, Departmental Senate Liason. (2007 - 2008).

Chair, CEC Scholarship Committee. (2002).

Member, Long term Planning Committee. (2002).

Member, CEC Scholarship Committee. (2000 - 2002).

Chair, Budget Committee. (2001).

Member, Safety Committee. (1998).

Member, Graduate Committee. (1995 - 1998).

Member, Schultze Award Committee. (1994 - 1996).

Member, Curriculum Committee. (1994 - 1995).

Member, Safety Committee. (1993 - 1994).

B. Professional:

Editor, npj Microgravity. (September 2022 - Present).

Additional Comments: Section editor for npj Microgravity (space science journal published by Nature)

Member, NASA-ORAU Fellowship Panel. (2023 - 2024).

Reviewer / Referee, NSERC, Canada. (2023).

Member, National Academies of Science, Engineering, and Medicine, Washington, DC, United States. (January 2022 - 2023).

Additional Comments: Appointed to decadal review to evaluate and establish NASA future research program for 2023-2033

Editorial Review Board Member, Geomicrobiology Journal. (1999 - 2022).

Member, Texas State University System, Austin, TX, United States. (October 2021 - May 2022).

Additional Comments: Presidential Search Committee

Texas Branch Representative, American Society for Microbiology, Council of Microbial Sciences, Washington, DC. (2017 - 2021).

Editorial Review Board Member, Applied and Environmental Microbiology. (2010 - 2021).

Reviewer / Referee, PloS One. (2008 - 2021).

Attendee / Participant, NASA - MSFC, Huntsville, AL, United States. (November 2020 - November 2021).

Additional Comments: Providing insight into future biofilm and other microbiology experiments that should be considered by NASA for the next decade (i.e. decadal survey by the National Academies). Drafted white paper.

Grant Reviewer and Panelist, NIH - ZRG1 F13-C (20) L Microbiology Fellowships Panel. (2013 - 2020).

Additional Comments: One meeting in 2013; two meetings in 2014; three meetings in 2015 and 2016; two meetings in 2017; one meeting in 2018; two meetings in 2019 (chaired and co-chaired some panel discussions); three meetings in 2020 (chaired some panel discussions).

Grant Reviewer and Panelist, American Society for Microbiology, Career Development Grants for Postdoctoral Women, Washington, DC. (July 1, 2010 - June 30, 2019).

Grant Reviewer, Army Research Office. (2018).

Grant Reviewer, Medical Research Council, United Kingdom. (2018).

Grant Reviewer, NASA - CASIS. (2018).

Grant Reviewer, South Dakota State University, EPSCoR grant. (2018).

Grant Reviewer and Panelist, NIH - ZRG1 MOSS-S (02) Oral Biology, Washington, DC. (2016 - 2018).

Additional Comments: One meeting per year, served as panel co-chair

Grant Reviewer, Swiss National Science Foundation, Switzerland. (2017).

Editorial Review Board Member, Frontiers in Microbiology. (2011 - 2017).

Grant Reviewer, Chilean Antarctic Research Program, Chile. (2016).

Region 6 representative (CO, KS, NE, NM, OK, and TX), American Society for Microbiology, Branch Organization Committee, Washington, DC. (2007 - 2016).

Grant Reviewer and Panelist, NIH - ZRG1 BCMB-A (51) Transformative R01 Roadmap Review. (2015).

Speaker, Missouri Valley Branch - American Society for Microbiology. (2015).

Additional Comments: Invited Speaker, Missouri Valley Branch, spring meeting

Speaker, Texas Branch - American Society for Microbiology. (2015).

Additional Comments: Invited Speaker, Texas Branch ASM, fall meetings

Grant Reviewer, Sam Houston State University, internal grant. (2014).

Grant Reviewer and Panelist, NASA ILSRA Microbial Biology Review Panel. (2014).

Speaker, Rio Grande Branch - American Society for Microbiology. (2014).

Additional Comments: Invited Speaker, Rio Grande Branch ASM, annual meetings

Grant Reviewer and Panelist, NIH - ZRG1 IDM-B (80) S. (2013).

Grant Reviewer and Panelist, NIH - ZRG1 IDM-L (02) S. (2013).

Speaker, American Society for Microbiology. (2013).
Additional Comments: Rio Grande Branch ASM, annual meetings

Grant Reviewer, Swiss National Science Foundation. (2012).

Grant Reviewer, Swiss National Science Foundation, Switzerland. (2012).

Grant Reviewer and Panelist, Canada Foundation for Innovation. (2012).

Speaker, American Society for Microbiology. (2012).
Additional Comments: Invited Speaker, Texas Branch ASM, fall meetings

Grant Reviewer and Panelist, NIH - ZRG1 BCMB-A (51) Transformative R01 Roadmap Review. (2011 - 2012).

Additional Comments: Two meetings

Grant Reviewer and Panelist, NIH - ZRG1 MOSS-S (02) Oral Biology, Washington, DC. (2009 - 2012).

Additional Comments: One meeting in each of 2009, 2010, and 2012; 2 meetings in 2011.

Grant Reviewer and Panelist, NIH - ZRG1 IDM-A. (2004 - 2012).
Additional Comments: 2004, 2005 (3X), 2006 (3X), 2007, 2008 (2X), 2009, 2010 (2X), 2011 (3X), 2012

Grant Reviewer, Louisiana Board of Regents. (2011).

Grant Reviewer and Panelist, NIH - ZRG1 F13-C (20) L Microbiology Fellowships Panel. (2011).

Grant Reviewer and Panelist, US-Israel Binational Science Foundation. (2011).

Speaker, American Society for Microbiology. (2011).
Additional Comments: Invited Speaker, Rocky Mountain ASM branch, Boulder CO

Grant Reviewer, Louisiana Board of Regents. (2010).

Grant Reviewer, Swiss National Science Foundation, Switzerland. (2010).

Reviewer / Referee, PloS Pathogens. (2008 - 2010).

Co-Chair, American Society for Microbiology. (2009).
Additional Comments: Co-chair: Cell-cell signaling ASM Biofilm Conference, Cancun MX

Grant Reviewer, Canadian Institutes of Health Research. (2009).

Grant Reviewer, NSERC, Canada. (2009).

Grant Reviewer, US-Israel Binational Science Foundation. (2009).

Grant Reviewer and Panelist, NIH – ZRG F14-C Biotechnology Fellowship Panel. (2009).

Speaker, American Society for Microbiology. (2009).

Additional Comments: Invited Speaker on Biofilm Education in Microbiology, National Meeting Philadelphia

Consulting, ICET Inc., Norwood, MA. (2007 - 2008).

Editorial Review Board Member, Applied and Environmental Microbiology. (1999 - 2007).

Speaker, American Society for Microbiology. (2006).
Additional Comments: Invited Speaker on Microbiology Academic Careers, National Meeting Orlando

American Society for Microbiology. (2005).
Additional Comments: Invited Speaker on Biofilms and Discussion Host, Texas Branch Fall Meeting.

Grant Reviewer, USDA. (2005).

Grant Reviewer, Welcome Trust, UK, United Kingdom. (2005).

Grant Reviewer and Panelist, Wellcome Trust, UK. (2005).

Grant Reviewer, NSERC, Canada, Canada. (2004 - 2005).

Grant Reviewer, USDA. (2004).

Grant Reviewer and Panelist, NIH - Bacteriology and Mycology Study Section BM-1 ad hoc. (2004).

Grant Reviewer and Panelist, NIH - NIDCR Special Emphasis Panel, Washington, DC. (2004).

Speaker, American Society for Microbiology. (2004).
Additional Comments: Invited Speaker on Graduate Education, Texas Branch Fall Meeting, Houston

Grant Reviewer and Panelist, National Science Foundation grant reviewer. (2003 - 2004).

Grant Reviewer, Sam Houston State University, internal grant. (2003).

Grant Reviewer, Sam Houston State University, internal grant. (2003).

Grant Reviewer, South Dakota State University, EPSCoR grant. (2003).

Grant Reviewer and Panelist, American Chemical Society, Petroleum Research Fund. (2003).

Invited Workshop Participant, American Society for Microbiology. (2003).
Additional Comments: Invited Workshop Participant, Biofilms 2003 meeting, Victoria BC Canada

Speaker, American Society for Microbiology. (2003).
Additional Comments: Invited Speaker, Mixed Infections Conference, Lake Tahoe, NV

Grant Reviewer, National Research Foundation, South Africa. (2002).

Grant Reviewer and Panelist, NIH - GRM Study Section ad hoc teleconference. (2002).

Additional Comments: Grant panel chair

Grant Reviewer and Panelist, NIH - NIDCR Special Emphasis Panel (2 meetings). (2002).

Additional Comments: 2 meetings, one as panel chair

Grant Reviewer and Panelist, NIH - OBM-1 study section ad hoc. (2002).

Grant Reviewer and Panelist, NIH - Bacteriology and Mycology Study Section BM-1 ad hoc (2 meetings). (2001 - 2002).

Grant Reviewer and Panelist, American Society for Microbiology Undergraduate Research Fellowships Panel. (2000 - 2002).

Grant Reviewer and Panelist, NIH - NIDCR Special Emphasis Panel, Washington, DC. (1999 - 2002).

Additional Comments: 1999 - 1 meeting, 2000 - 2 meetings, 2001 - 3 meetings - was panel chair at one meeting, 2002 - 2 meetings - was panel chair at one meeting

Editorial Review Board Member, Bioresource Technology. (1997 - 2002).

Grant Reviewer, USDA. (2001).

Grant Reviewer and Panelist, National Science Foundation grant reviewer. (1994 - 2001).

Round table discussion group leader, American Society for Microbiology. (2000).
Additional Comments: Round table discussion group leader at ASM Biofilm Meeting, Big Sky, MT

American Society for Microbiology. (1999).

Consulting, Sulzer-Carbomedics, Inc. (1999).

Grant Reviewer, National Environment Research Council, United Kingdom. (1999).

Grant Reviewer, USDA. (1999).

Grant Reviewer and Panelist, NIH - NIAID Special Emphasis Panel, Washington, DC. (1999).

Grant Reviewer and Panelist, NIH - NIDCR Special Emphasis Panel, Washington, DC. (1999).

Speaker, American Society for Microbiology. (1999).
Additional Comments: Invited speaker on biofilms at Texas Branch Spring and Fall meetings

Coordinator / Organizer, BioSci - Internet Discussion Group on Biofilms. (1997 - 1999).

Coordinator / Organizer, International Congress on Microbial Ecology. (1998).

Editor, Proceedings of the 8th International Symposium for Microbial Ecology. (1998).

Grant Reviewer, Food and Drug Administration. (1998).

Grant Reviewer and Panelist, FIPSE, US Dept. Education. (1997).

Editor, Cells and Materials. (1994 - 1996).

Consulting, ICET Inc., Norwood. (1995).

Coordinator / Organizer. (1995).

Coordinator / Organizer, Canadian Society of Microbiologists. (1995).

Editor, Canadian Journal of Microbiology. (1995).

Coordinator / Organizer, Canadian Society of Microbiologists / Society for Industrial Microbiology. (1994).

Grant Reviewer, Kidney Foundation of Canada. (1994).

Grant Reviewer, Medical Research Council of Canada. (1993).

Grant Reviewer, Medical Research Council of Canada. (1992).

Grant Reviewer, Kidney Foundation of Canada. (1991).

Grant Reviewer and Panelist, National Sea Grant College Program. (1991).

C. Community:

Member, Wimberley Library long-term planning committee. (2005).

Additional Comments: Long-term planning committee

Volunteer, Assistant Soccer Coach, for sons' soccer teams. (2000 - 2005).

Session Nominating Committee, Wimberley Presbyterian Church. (1999 - 2001).

Volunteer, Cub Scouts Wimberley. (1997 - 2001).

Session Nominating Committee, First Presbyterian Church. (1994 - 1996).

D. Organization Memberships:

American Association for the Advancement of Science (AAAS). (November 2018 - Present).

Sigma Xi. (1999 - Present).

Texas Branch - American Society for Microbiology (Texas Branch ASM). (1995 - Present).

Additional Comments: Branch President from 2003-2005

American Society for Microbiology (ASM). (1983 - Present).

Additional Comments: - nominated for alternate councillor, Division J 1994 (Morphology and Structure) - election unsuccessful
- President-elect, Texas Branch ASM 2001 – 2003
- President, Texas Branch ASM
2003 – 2005
- Secretary, Texas Branch ASM
2005 – 2007
- Region VI Planning Coordinator
2007 – 2016
(ASM Branches in TX, NM, CO, WY, OK, KS, and NE)
-International Committee, Member 2008 – 2012
-National Postdoctoral Award Selection Committee2011 – present
-Goldschmidt Graduate Student Award (Texas) Committee2011 – present

(chair)

International Society for Microbial Ecology. (2000 - 2006).

Canadian Society of Microbiologists (CSM). (1985 - 1996).
Additional Comments: - CSM Council 1992 – 1996
- Vice Chairman, Morphology and Structure Section 1992 – 1994
- Chairman, Morphology and Structure Section 1994 – 1996

Microscopical Society of Canada. (1984 - 1995).

E. Service Honors and Awards:

Award / Honor Recipient: Presidential Distinction for Excellence in Service, College of Science and Engineering, Texas State University.
August 18, 2023

Award / Honor Recipient: Texas Branch ASM: Distinguished Service Award, Texas Branch - American Society for Microbiology.
November 6, 2009

G. Service Professional Development Activities Attended:

Conference Attendance, "The Three I’s, Biosecurity & Research Integrity Conference," Massachusetts Society for Medical Research, Portsmouth, NH, United States. (April 28, 2019 - May 1, 2019).

Additional Comments: National level conference covering issues relative to research compliance (Institutional Biosafety Committee, Institutional Review Board, and Institutional Animal Care and Use Committee) - hence "3 I's"