Curriculum Vitae

WILLIAM J. KENYON, Ph.D.

Professor of Microbiology
Department of Biology
University of West Georgia
Carrollton, GA 30118

Office 283 Biology Building
Phone: 678-839-4033
FAX: 678-839-6548
E-mail: wkenyon@westga.edu

Academic Degrees

1991-1996	Ph.D. in Microbiology The University of Kansas, Lawrence, KS
1987-1991	B.S. in Life Sciences (magna cum laude & honors) University of Missouri-Rolla (Missouri School of Science and Technology), Rolla, MO

Faculty Positions

2018-Present	Professor and Director of Microbiology Programs, Department of Biology, University of West Georgia, Carrollton, GA
2012-2018	Associate Professor, Department of Biology, University of West Georgia, Carrollton, GA
2006-2012	Assistant Professor, Department of Biology, University of West Georgia, Carrollton, GA
2005-2006	Lecturer, Department of Biomedical Sciences, University of South Alabama, Mobile, AL
2005	Adjunct Lecturer, Department of Biology, Spring Hill College, Mobile, AL

Postdoctoral Fellowships and Teaching Assistantships

2003-2006	Co-PI on NIH-AREA grant, Department of Biomedical Sciences, University of South Alabama, Mobile, AL
2000-2003	Postdoctoral Fellow, Department of Biomedical Sciences, University of South Alabama, Mobile, AL
1996-2000	Postdoctoral Fellow, School of Biological Sciences, Division of Molecular Biology and Biochemistry, University of Missouri-Kansas City, Kansas City, MO
1991-1996	Graduate Teaching Assistant, Department of Microbiology, The University of Kansas, Lawrence, KS

Teaching History and Interests

2006-Present ***Department of Biology, University of West Georgia, Carrollton, GA***
(An asterisk indicates courses which are dual-listed at the graduate level.)

Upper-Level Courses for Biology Majors
Microbiology (BIOL 3310)
Cell and Molecular Biology (BIOL 3134)
Bacterial Genetics (BIOL 4315/5315)*
Applied and Environmental Microbiology (BIOL 4321/5321)*
Advanced Medical Microbiology (BIOL 4325)*
Bacterial Pathogenesis (BIOL 4728/5728)*
Emerging Pathogens (BIOL 4730/5730)*
Senior Biology Seminar (BIOL 4984)

Lower-Level Courses for Biology Majors
Principles of Biology I (BIOL 1107)

Lower-Level Courses for Pre-Nursing Majors
Medical Microbiology and Medical Microbiology Laboratory (BIOL 2030 & 2030L)

Lower-Level Courses for Non-Science Majors
The Unseen World of Microbes (BIOL 1015)

Research and Master's-Level Courses for Biology Majors
Independent Study (BIOL 4981)
Advanced Undergraduate Biology Research (BIOL 4983)
Biological Internship (BIOL 4986)
Procaryotic Biology (BIOL 6325)
Graduate Independent Study (BIOL 6981)
Directed Readings (BIOL 6982)
Graduate Research (BIOL 6983)
Graduate Seminar (BIOL 6984)
Comprehensive Exam (BIOL 6995)
Thesis (BIOL 6999)

2005-2006 ***Department of Biomedical Sciences, University of South Alabama, Mobile, AL***
Medical Microbiology Laboratory

2005 ***Department of Biology, Spring Hill College, Mobile, AL***
Microbiology and Microbiology Laboratory

1991-1996 ***Department of Microbiology, The University of Kansas, Lawrence, KS***
Introductory Microbiology Laboratory and Fundamentals of Microbiology Laboratory

Research History and Interests

2018-Present Cellulose Degradation Strategies in the Bacterial Genus *Cellulomonas*
Department of Biology, University of West Georgia, Carrollton, GA

2006-2018 The Starvation-Stress Responses of Salmonellae and other Enterobacteria &
Cellulose Degradation Strategies in the Genus *Cellulomonas*
Department of Biology, University of West Georgia, Carrollton, GA

2000-2006 The Starvation-Stress Response of *Salmonella enterica* Serovar Typhimurium
Advisor: Dr. Michael Spector
Department of Biomedical Sciences, University of South Alabama, Mobile, AL

1996-2000 The Role of Epstein-Barr Virus Glycoproteins in Membrane Fusion and Viral Entry into Host Epithelial Cells and B Lymphocytes
Advisor: Dr. Lindsey Hutt-Fletcher
School of Biological Sciences, Division of Molecular Biology and Biochemistry,
University of Missouri-Kansas City, Kansas City, MO

1993-1994 Bioremediation of Petroleum Hydrocarbons (State of Kansas DOE/EPSCoR Trainee)
Advisor: Dr. Clarence S. Buller
Department of Microbiology, The University of Kansas, Lawrence, KS

1991-1996 Structure and Function of a Capsular Polysaccharide from *Cellulomonas flavigena* strain KU
Advisor: Dr. Clarence S. Buller
Department of Microbiology, The University of Kansas, Lawrence, KS

1990-1991 Purification and Analysis of Cyclic β-(1,2)-Glucans from *Rhizobium trifolii* TA-1
Advisor: Dr. Donald Siehr
Department of Chemistry, University of Missouri-Rolla, Rolla, MO

1989-1991 Aquaculture of *Tilapia*: Monitoring of pH, Dissolved Oxygen, and Ammonia Levels
Advisor: Dr. Nord Gale
Department of Life Sciences, University of Missouri-Rolla, Rolla, MO

Peer-Reviewed Publications

(Underlined names indicate student co-authors whom I have mentored.)

1. Kenyon WJ (in preparation) Antibiotic resistance profiles of *Cellulomonas* species.

2. Kenyon WJ (in preparation) Acid and bile resistance of curdlan-encapsulated *Cellulomonas flavigena* (ATCC 53703), a potential probiotic bacterium.

3. Kenyon WJ (in preparation) The curdlan-producing bacteria: biology and biotechnology. *Applied Microbiology and Biotechnology*

4. Kenyon WJ (in preparation) Curdlan biosynthesis, biofilm formation, and cellular aggregation induced by nitrogen- and phosphorus-starvation in cellulose-grown cultures of *Cellulomonas flavigena* KU (ATCC 53703). *Applied and Environmental Microbiology*

5. Kenyon WJ (2017) The cellulomonads as an alternative source of the bacterial exopolysaccharide curdlan. In: Beta-glucans: applications, effects and research. (ed). Nova Science Publishing, Hauppauge, NY

6. Pittman JR, Kline LC, Kenyon WJ (2015) Carbon-starvation induces cross-resistance to thermal, acid, and oxidative stress in *Serratia marcescens*. *Microorganisms* 3:746-758

7. Spector MP, Kenyon WJ (2012) Resistance and survival strategies of *Salmonella enterica* to environmental stresses. *Food Research International* 45:455-481

8. Kenyon WJ, Spector MP (2012) Response of *Salmonella enterica* serovars to environmental stresses. In: Stress response of foodborne microorganisms; Advances in Food Safety and Food Microbiology. Wong HC (ed). Nova Science Publishing, Hauppauge, NY

9. Siriwardana LS, Gall AR, Buller CS, Esch SW, Kenyon WJ (2011) Factors affecting the accumulation and degradation of curdlan, trehalose and glycogen in cultures of *Cellulomonas flavigena* strain KU (ATCC 53703). *Antonie van Leeuwenhoek* 99:681-695

10. Kenyon WJ, Humphreys S, Roberts M, Spector MP (2010) Periplasmic peptidyl-prolyl isomerases SurA and FkpA play an important role in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium. *Antonie van Leeuwenhoek* 98:51-63

11. Kenyon WJ, Nicholson KL, Guillaume E, Pallen MJ, Spector MP (2007) σ^S-Dependent carbon-starvation induction of pbpG (PBP 7) is required for the starvation-stress response in *Salmonella enterica* serovar Typhimurium. *Microbiology* 153:2148-2158

12. Kenyon WJ, Thomas SM, Johnson E, Pallen MJ, Spector MP (2005) Shifts from glucose to certain secondary carbon-sources result in activation of the extracytoplasmic sigma factor σ^E in *Salmonella enterica* serovar Typhimurium. *Microbiology* 151:2373-2383

13. Kenyon WJ, Esch SW, Buller CS (2005) The curdlan-type exopolysaccharide produced by *Cellulomonas flavigena* KU forms part of an extracellular glycocalyx involved in cellulose degradation. *Antonie van Leeuwenhoek* 87:143-148

14. Humphreys S, Rowley G, Stevenson A, Kenyon WJ, Spector MP, Roberts M (2003) Role of periplasmic peptidylprolyl isomerases in *Salmonella enterica* serovar Typhimurium virulence. *Infection and Immunity* 71:5386-5388

15. Kenyon WJ, Buller CS (2002) Structural analysis of the curdlan-like exopolysaccharide produced by *Cellulomonas flavigena* KU. *Journal of Industrial Microbiology and Biotechnology* 29:200-203

16. Kenyon WJ, Sayers DG, Humphreys S, Roberts M, Spector MP (2002) The starvation-stress response of *Salmonella enterica* serovar Typhimurium requires σ^E-, but not CpxR-regulated extracytoplasmic functions. *Microbiology* 148:113-122

17. Wang X, Kenyon WJ, Li QX, Mullberg J, Hutt-Fletcher LM (1998) Epstein-barr virus uses different complexes of glycoproteins gH and gL to infect B lymphocytes and epithelial cells. *Journal of Virology* 72:5552-5558

18. Kenyon WJ (1996) Structure and function of a capsular polysaccharide from *Cellulomonas flavigena* strain KU. Ph.D. dissertation. Department of Microbiology, The University of Kansas, Lawrence, KS

Research and Teaching Conferences Attended

2018 1st Annual UWG Biology Expo, Department of Biology, University of West Georgia, Carrollton, GA
2016 Annual UWG Research Day/Big Night Research Forum, Carrollton, GA
2015 101st American Society for Microbiology Southeastern Branch Meeting, Kennesaw, GA
2015 Annual UWG Research Day/Big Night Research Forum, Carrollton, GA
2014 Georgia-Alabama Louis Stokes Alliance for Minority Participation (LSAMP) Scholars Symposium, Atlanta, GA
2012 98th American Society for Microbiology Southeastern Branch Meeting, Athens, GA
2012 112th General Meeting of the American Society for Microbiology, San Francisco, CA
2010 96th American Society for Microbiology Southeastern Branch Meeting, Montgomery, AL
2010 Science Technology Engineering & Mathematics (STEM) Institute, Carrollton, GA
2007 93th American Society for Microbiology Southeastern Branch Meeting, Auburn, AL
2007 Annual UWG Research Day/Big Night Research Forum, Carrollton, GA
2006 106th General Meeting of the American Society for Microbiology, Orlando, FL
2004 104th General Meeting of the American Society for Microbiology, New Orleans, LA
2003 89th American Society for Microbiology Southeastern Branch Meeting, Athens, GA
2003 103rd General Meeting of the American Society for Microbiology, Washington, DC
2002 88th American Society for Microbiology Southeastern Branch Meeting, Gainesville, FL
2002 Gordon Research Conference on Microbial Stress Responses, Salve Regina, RI
2001 101st General Meeting of the American Society for Microbiology, Orlando, FL
1999 24th International Herpesvirus Workshop, Cambridge, MA
1998 9th Annual Intercampus Virology Meeting, Platte River State Park, NE
1997 22nd International Herpesvirus Workshop, San Diego, CA
1996 96th General Meeting of the American Society for Microbiology, New Orleans, LA
1992 American Society for Microbiology Missouri Valley Branch Meeting, Lawrence, KS

Selected Poster Presentations at Research Conferences

(Underlined names indicate student co-authors whom I have mentored and asterisks indicate awards.)

Kenyon WJ, Raglin M, Okafor J, Swint J, Wolf T (2018) Get to know the Biology faculty and research students: the *Cellulomonas* biofilm-planktonic growth cycle. 1st Annual Biology Expo, Department of Biology, University of West Georgia, Carrollton, GA

King JR, Jackson DA, Fielder BL, Stewart BK, Williams SN, Kenyon WJ (2016) Resistance of *Serratia marcescens* to the antiseptic chlorhexidine. Department of Biology, University of West Georgia. Research Day/Big Night research forum, University of West Georgia, Carrollton, GA

Siriwardana LS, Kenyon WJ (2015) Disaggregation of curdlan-encapsulated *Cellulomonas flavigena* (ATCC 53703) during carbon-starvation in minimal media. Department of Biology, University of West Georgia. 101st Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Kennesaw State University, Kennesaw, GA

King JR, Marshall AA, Kenyon WJ (2015) Characterization of *Escherichia coli* lipoprotein genes *slp* and *yeaY* as potential members of the starvation-stress response. Department of Biology, University of West Georgia. Research Day/Big Night research forum, University of West Georgia, Carrollton, GA

Schermer SR, King JR, Kenyon WJ (2014) Carbon-source transitions resulting in activation of the extracytoplasmic-function sigma-factor RpoE in *Salmonella enterica* serovar Typhimurium. Department of Biology, University of West Georgia. Georgia-Alabama Louis Stokes Alliance for Minority Participation (LSAMP) Scholars Symposium, Clark Atlanta University, Atlanta, GA

Pittman JR, Oliver JB, Angriani K, Kenyon WJ (2012) *Salmonella enterica* serovar Typhimurium and *Serratia marcescens* display phenotypic differences in responding to starvation stress. Department of Biology, University of West Georgia. 98th Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Athens, GA

*Angriani K, Kenyon WJ (2012) Utilization of alternative carbon sources by clinical and environmental strains of *Serratia marcescens*. Department of Biology, University of West Georgia. 112th General Meeting of the American Society for Microbiology, San Francisco, CA. ***Student Travel Grant awarded to K. Angriani through the American Society for Microbiology Undergraduate Research Fellowship (ASM-URF)**

*Siriwardana LS, Weaver AR, Gall AR, Hargrove BD, Kenyon WJ (2010) The glucose-storage carbohydrates trehalose, curdlan and glycogen function as reserve compounds for *Cellulomonas flavigena* ATCC 53703. Department of Biology, University of West Georgia. 96th Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Montgomery, AL. ***ASM Graduate Student Travel Grant awarded to L. S. Siriwardana**

Siriwardana LS, Weaver AR, Gall AR, Hargrove BD, Kenyon WJ (2010) The glucose-storage carbohydrates trehalose, curdlan and glycogen function as reserve compounds for *Cellulomonas flavigena* ATCC 53703. Department of Biology, University of West Georgia. 2010 Celebration of Graduate Student Research and Research Day/Big Night, University of West Georgia, Carrollton, GA

Pittman JR, Kenyon WJ (2008) The starvation-stress response of pigmented and non-pigmented *Serratia marcescens* strains. Department of Biology, University of West Georgia. 69th Annual Meeting of the Association of Southeastern Biologists, Spartanburg, SC

Pittman JR, Adebisi L, Spector MP, Kenyon WJ (2007) Starvation-stress response (SSR) phenotypes of pigmented and non-pigmented *Serratia marcescens* strains. Department of Biology, University of West Georgia and Department of Biomedical Sciences, University of South Alabama. 93rd Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Auburn, AL

Pittman JR, Kenyon WJ (2007) Starvation-induced resistance of *Serratia marcescens* to heat and acid stress. Department of Biology, University of West Georgia. Annual Celebration of Graduate Student Research, University of West Georgia, Carrollton, GA

Adebisi L, Waters R, Burns K, Kenyon WJ (2007) Starvation-induced heat-tolerance in several species of enterobacteria isolated from soil. Department of Biology, University of West Georgia. Research Day/Big Night, University of West Georgia, Carrollton, GA

Kenyon WJ, Ravendran K, Pejatovic I, Rieck S, Spector MP (2006) Mechanism of LamB-mediated σ^E activation in *Salmonella enterica* serovar Typhimurium. Department of Biomedical Sciences, University of South Alabama. 106th General Meeting of the American Society for Microbiology, Orlando, FL

Kenyon WJ, Thomas S, Johnson E, Spector MP (2004) The extracytoplasmic function sigma factor σ^E of *Salmonella enterica* serovar Typhimurium is activated in response to carbon-source shifts that induce specific transport proteins associated with the outer-membrane. Department of Biomedical Sciences, University of South Alabama. 104th General Meeting of the American Society for Microbiology, New Orleans, LA

Kenyon WJ, Spector MP (2003) Molecular characterization of the *stiC/pbpG* region and its role in the starvation-stress response of *Salmonella enterica* serovar Typhimurium. Department of Biomedical Sciences, University of South Alabama. 103rd General Meeting of the American Society for Microbiology, Washington, DC

*Nicholson KL, Kenyon WJ, Spector MP (2002) Molecular cloning and characterization of the *stiC/pbpG* region of the *Salmonella* chromosome. Department of Biomedical Sciences, University of South Alabama. 88th Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Gainesville, FL. ***ASM President's Award to K. L. Nicholson**

Khan R, Kenyon WJ, Spector MP (2002) The role of the *aidB* gene in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium. Department of Biomedical Sciences, University of South Alabama. 88th Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Gainesville, FL

Johnson EL, Kenyon WJ, Spector MP (2002) The effect of carbon-source shifts on σ^E activation in *Salmonella enterica* serovar Typhimurium. Department of Biomedical Sciences, University of South Alabama. 88th Annual Meeting of the Southeastern Branch of the American Society for Microbiology, Gainesville, FL

Kenyon WJ, Spector MP (2002) Differential roles and regulation of *htrA*, *surA*, and *fkpA* in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium. Department of Biomedical Sciences, University of South Alabama. 2002 Gordon Research Conference on Microbial Stress Responses, Salve Regina, RI

Kenyon WJ, Spector MP (2001) Extracytoplasmic stress response pathways and the starvation-stress response of *Salmonella enterica* serovar Typhimurium: comparison of the σ^E and Cpx pathways. Department of Biomedical Sciences, University of South Alabama. 101st General Meeting of the American Society for Microbiology, Orlando, FL

*Kenyon WJ, Buller CS (1996) The effects of nutrient supply and osmotic stress on the levels of trehalose, curdlan, and glycogen in *Cellulomonas flavigena* KU. Department of Microbiology, University of Kansas. 96th General Meeting of the American Society for Microbiology, New Orleans, LA. ***ASM Graduate Student Travel Grant awarded to W. J. Kenyon**

Selected Seminar Presentations

2017 "The curdlan glycocalyx of *Cellulomonas*: a potential role in the digestion of cellulose"
Departmental Seminar
Department of Biology, University of West Georgia, Carrollton, GA

2015 "Mechanistic studies of DNA repair"
Popular Lectures on 2015 Nobel Prizes
College of Science and Mathematics, University of West Georgia, Carrollton, GA

2014 "Regulation of transcription in bacteria: the *lac* operon of *Escherichia coli*"
Department of Biology
Benedictine College, Atchison, KS

2011 "*Salmonella* superpowers unleashed by starvation stress"
Molecular and Cellular Biology Research Club Seminar
Department of Biology, University of West Georgia, Carrollton, GA

2007 "How bacteria cope with a low carbohydrate diet"
Graduate School Luncheon
University of West Georgia, Carrollton, GA

2006 "The extracytoplasmic starvation-stress response of *Salmonella enterica* serovar Typhimurium"
Department of Biology
University of West Georgia, Carrollton, GA

2005 "Mechanism of σ^E activation in response to starvation-stress in *Salmonella*"
Interdepartmental Research Forum
College of Medicine, University of South Alabama, Mobile, AL

2004 "Regulation of the starvation-stress response of *Salmonella enterica* serovar Typhimurium by the alternative sigma factors σ^S and σ^E"
USDA Agricultural Research Station
Cornell University, Ithaca, NY

2003 "σ^E-Regulated starvation-stress response genes of *Salmonella enterica* serovar Typhimurium"
Annual Meeting of the Southeastern Branch of the American Society for Microbiology
University of Georgia, Athens, GA

2003 "The extracytoplasmic, σ^E-regulated starvation-stress response of *Salmonella*"
Interdepartmental Research Forum
College of Medicine, University of South Alabama, Mobile, AL

2002 "Starvation-stress response loci of *Salmonella enterica* serovar Typhimurium"
Interdepartmental Research Forum, College of Medicine
University of South Alabama, Mobile, AL

2001 "Role of the alternative sigma factor σ^E in the starvation-stress response of *Salmonella*"
Interdepartmental Research Forum
College of Medicine, University of South Alabama, Mobile, AL

1996 "Structure and function of a capsular polysaccharide from *Cellulomonas flavigena* strain KU"
Ph.D. Dissertation Defense
Department of Microbiology, The University of Kansas, Lawrence, KS

1995 "Structural analysis of a capsular polysaccharide from *Cellulomonas flavigena* strain KU"
Graduate Seminar
Department of Microbiology, The University of Kansas, Lawrence, KS

External Research Grants

2021-2024 Author and Principal Investigator
NIH – Academic Research Enhancement Award for Undergraduate Research (R15 AREA Grant)
National Institute of General Medical Sciences
"The probiotic potential of *Cellulomonas*"
Department of Biology, University of West Georgia
Funds Requested: $300,000 over a 3-year period
(currently in prepartion)

2013 Author and Principal Investigator
NIH – Academic Research Enhancement Award for Undergraduate Research (R15 AREA Grant)
National Institute of General Medical Sciences
"Activation of the RpoE-regulated envelope-stress response (RpoE-ESR) by specific carbon-source transitions in *Salmonella enterica* serovar Typhimurium"
Department of Biology, University of West Georgia
Funds Requested: $250,000 over a 3-year period
Not Funded

2004-2007 Co-Author and Co-Investigator
NIH – Academic Research Enhancement Award for Undergraduate Research (R15 AREA Grant)
National Institute of Allergy and Infectious Diseases
"*Salmonella's* RpoE(σ^E)-regulated starvation-stress response"
Department of Biomedical Sciences, University of South Alabama
Funds Awarded: $150,000 over a 3-year period

College and Institutional Research Grants

2016-2017 Principlal Investigator
Departmental Matching Funds
"The biofilm matrix of *Cellulomonas*: an unexplored resource for biotechnology"
Department of Biology, University of West Georgia
Funds Awarded: $1,000

2016-2017 Author and Principal Investigator
Faculty Research Grant (College of Science and Mathematics)
"Protein Composition of the Curdlan Glycocalyx Produced by the Cellulose-Degrading Bacterium *Cellulomonas flavigena*"
Department of Biology, University of West Georgia
Funds Awarded: $1,200

2016-2017 Author and Principal Investigator
Faculty Research Grant (Office of the Provost and Vice President for Academic Affairs)
"The biofilm matrix of *Cellulomonas*: an unexplored resource for biotechnology"
Department of Biology, University of West Georgia
Funds Awarded: $1,000

2013-2014 Author and Principal Investigator
Faculty Research Grant (College of Science and Mathematics)
"Carbon source transitions resulting in activation of the extracytoplasmic function sigma factor RpoE in *Salmonella*"
Department of Biology, University of West Georgia
Funds Awarded: $1,250

2011-2012 Author and Principal Investigator
Faculty Research Grant (Learning Resources Committee)
"Differing strategies for cellulose degradation within the genus *Cellulomonas*"
Department of Biology, University of West Georgia
Funds Awarded: $2,600

2010-2011 Author and Principal Investigator
Faculty Research Grant (Learning Resources Committee)
"Diversity in RpoS-controlled phenotypes of clinical and environmental *Serratia marcescens* strains"
Department of Biology, University of West Georgia
Funds Awarded: $1,500

2009-2010 Author and Principal Investigator
Faculty Research Grant (Learning Resources Committee)
"Strain variation in the *Serratia marcescens* starvation-stress response"
Department of Biology, University of West Georgia
Funds Awarded: $1,000

2007-2008 Author and Principal Investigator
Faculty Research Enhancement Award (Office of Sponsored Operations)
"The starvation-stress response of *Serratia marcescens*"
Department of Biology, University of West Georgia
Funds Awarded: $3,000

2007-2008 Author and Principal Investigator
Faculty Research Grant (Learning Resources Committee)
"Starvation-induced resistance of *Serratia marcescens* to environmental stresses"
Department of Biology, University of West Georgia
Funds Awarded: $1,500

Student Research Assistantship Awards

2016-2017 Author and Principal Investigator
Student Research Assistantship Program (Office of Undergraduate Research)
"Protein composition of the extracellular matrix produced by the cellulose-degrading bacterium *Cellulomonas flavigena*"
Department of Biology, University of West Georgia
Funds Awarded: $1,475

2015-2016 Co-Author and Research Mentor
American Society for Microbiology Undergraduate Research Fellowship (ASM-URF)
Jessica R. King and William J. Kenyon
"The RpoE-regulated outer-membrane lipoprotein genes *slp*, *yeaY*, and *yabI* as potential members of the starvation-stress response in *Escherichia coli*"
Department of Biology, University of West Georgia
Funds Reguested: $3,000 student stipend for summer + $800 for conference travel expenses
Not funded

2014-2015 Co-Author and Research Mentor
American Society for Microbiology Undergraduate Research Fellowship (ASM-URF)
Jessica R. King and William J. Kenyon
"Identification of secondary carbon-sources which activate the RpoE-regulated envelope-stress response in *Salmonella enterica* serovar Typhimurium"
Department of Biology, University of West Georgia
Funds Reguested: $4,000 student stipend for summer + $1,000 for conference travel expenses
Not funded

2014 Research Mentor
NSF Georgia-Alabama Louis Stokes Alliance for Minority Participation (LSAMP Program)
Schernett R. Schermer and William J. Kenyon
"Identification of RpoE-activating carbon-sources in *Salmonella enterica* serovar Typhimurium"
Department of Biology, University of West Georgia
Funds Awarded: $1,000 student stipend

2011-2012 Author and Principal Investigator
Student Research Assistantship Program (Office of Student Employment)
"Starvation-inducible genes involved in DNA protection and repair in *Salmonella*"
Department of Biology, University of West Georgia
Funds Awarded: $2,000

2011-2012 Co-Author and Research Mentor
American Society for Microbiology Undergraduate Research Fellowship (ASM-URF)
Kartika Angriani and William J. Kenyon
"Utilization of alternative carbon sources by clinical and environmental *Serratia marcescens* strains"
Department of Biology, University of West Georgia
Funds Awarded: $4,000 student stipend for summer + $800 for conference travel expenses

2009-2010 Author and Principal Investigator
Student Research Assistantship Program (Office of Student Employment)
"Two strategies for cellulose degradation within the genus *Cellulomonas*"
Department of Biology, University of West Georgia
Funds Awarded: $2,100

2008-2009 Author and Principal Investigator
Student Research Assistantship Program (Office of Student Employment)
"Role of the red pigment prodigiosin in the starvation-stress response of *Serratia marcescens*"
Department of Biology, University of West Georgia
Funds Awarded: $2,100

2007-2008 Author and Principal Investigator
Student Research Assistantship Program (Office of Student Employment)
"Starvation-induced resistance of *Serratia marcescens* to environmental stresses"
Department of Biology, University of West Georgia
Funds Awarded: $2,100

2006-2007 Author and Principal Investigator
Student Research Assistantship Program (Office of Student Employment)
"Role of the starvation-stress response (SSR) of *Salmonella* in cross-resistance to disinfectants and antiseptics"
Department of Biology, University of West Georgia
Funds Awarded: $1,200

Service as a Reviewer for Journals

2019 *Biochemie*
2018 *Folia Microbiologica*
2017 *Molecules*
Microorganisms
2016 *Foods*
Polymers
2015 *Canadian Journal of Microbiology*
Journal of Dairy Science
International Journal of Molecular Sciences
2014 *Molecules*
Polymers
FEMS Microbiology Letters
2013 *Archives of Microbiology*
Materials
2012 *PLoS One*

Invited Reviews of Textbooks and Textbook Proposals

2017 Textbook Title: Cell and Molecular Biology: an Integrative Approach
Publisher: Wiley

2014 Textbook Title: Microbial Pathogenesis
Publisher: Garland Science

2011 Textbook Title: Microbiology, a clinical approach
Publisher: Garland Science

Memberships in Professional Organizations and Societies

Current Professional Memberships

American Society for Microbiology (ASM); member since 1992
Southeastern Branch of the American Society for Microbiology (SEASM)

Former Professional Memberships

Sigma Xi Society for Scientific Research
Society for Industrial Microbiology and Biotechnology (SIMB)
Biomedical Sciences Society at the University of South Alabama
Lavoisier Society at the University of Missouri-Kansas City
Missouri Valley Branch of the American Society for Microbiology
The University of Kansas Microbiology Society
Helix Life Science Organization at the University of Missouri-Rolla

Academic and Professional Service

Departmental Service

2007-Present Academic Advisor and Career Counselor for UWG Biology majors

2018-2019 Space Allocation Committee
M.S. Non-Thesis Committees: M. Manders, A. Acree

2017-2018 Personnel Committee (Chair)
M.S. Non-Thesis Committees: A. Gavora (Chair), M. Stilley (Chair), C. Cocchiere

2016-2017 Personnel Committee
Teaching Laboratories "Sherpa" for the Biology Building Renovation Project
M.S. Non-Thesis Committees: B. Conner, A. Gavora (Chair), M. Stilley (Chair)

2015-2016 Finance Committee (Chair)
Personnel Committee
Teaching Laboratories "Sherpa" for the Biology Building Renovation Project
M.S. Thesis Committees: K. Decker-Pulice
M.S. Non-Thesis Committees: B. Conner, D. Brooks

2014-2015 Space Allocation Committee (Chair)
Finance Committee
M.S. Non-Thesis Committees: C. Creamer, E. Rowe

2013-2014 Finance Committee
Space Allocation Committee
M.S. Thesis Committees: M. Arroyo, K. Andrews
M.S. Non-Thesis Committees: M. Hill (Chair), M. Smith

2012-2013 Biology Lecturer Search Committee (Chair)
Graduate Curriculum and Instruction Committee (Chair)
M.S. Thesis Committees: A. Milam, P. Grovenstein, K. Andrews, M. Arroyo, H. Abbey
M.S. Non-Thesis Committees: A. Weaver (Chair), B. Moore

2011-2012 Finance Committee (Chair)
Graduate Curriculum and Instruction Committee
M.S. Thesis Committees: M. Purcell, A. Weaver (Chair), P. Gosu (Chair), A. Milam, and P. Grovenstein
M.S. Non-Thesis Committees: B. Hargrove

2010-2011 Finance Committee
M.S. Thesis Committees: A. Weaver (Chair) and P. Gosu (Chair)
M.S. Non-Thesis Committees: E. Harvey

2009-2010 Finance Committee
M.S. Thesis Committees: L. Siriwardana (Chair) and T. Hines
M.S. Non-Thesis Committees: K. Cancro and Erin Harper (Chair)

2008-2009 Undergraduate Curriculum and Instruction Committee (Chair)
Faculty Search Committee for Molecular/Cellular Biologist
M.S. Thesis Committees: A. Effiong, T. Hines, and P. Heard
M.S. Non-Thesis Committees: D. Forest

2007-2008 Undergraduate Curriculum and Instruction Committee
Graduate Curriculum and Instruction Committee
Faculty Search Committee for Microbiologist (microbiology advisor)
Ad-Hoc Cellular and Molecular Biology Curriculum Committee
M.S. Thesis Committees: J. Pittman (Chair), P. Heard, A. Effiong, and T. Hines

2006-2007 Graduate Curriculum and Instruction Committee

College- and University-Level Service

2016-2017 Honors Programs Committee of the Faculty Senate, COSM Representative
2012-2014 College of Science and Mathematics (COSM) Curriculum Committee, Biology Representative
2011-2012 Undergraduate Programs Committee of the Faculty Senate, COSM Representative
2010 UWG Annual Fund Campaign (A-Day) Fund Raising Captain for the Department of Biology
2009 UWG Annual Fund Campaign (A-Day) Fund Raising Captain for the Department of Biology

Community Service and Outreach Activities

2019 Guest speaker at Carrollton Middle School (5th grade), Carrollton, GA: "What Microbiologists Do!"
2017 Abstract reviewer for the 6th Annual Southeast Regional GURC conference at Georgia College & State University, Milledgeville, GA
2016 Presenter for Science Saturdays at the West Georgia Youth Science and Technolgy Center (GYSTC): "The Unseen World of Microbes and Molecules"
2016 Advisor for High School Science Fair participant (Carrollton High School in GA)
2016 Science Advisor and Presenter for Lego Robotics team at Carrollton Middle School, Carrollton, GA
2015 Judge for the West Georgia Regional Science and Engineering Fair in Carrollton, GA
2015 Organizer for presentation by *My Reptile Guys* at Oak Grove Montessori School in Carrollton, GA
2014 Biology advisor for Oak Grove Montessori School in Carrollton, GA
2013 Guest presenter at Oak Grove Montessori School in Carrollton, GA: "Microbes and Molecules"
2013 Biology advisor for Oak Grove Montessori School in Carrollton, GA
2012 Guest presenter at Oak Grove Montessori School in Carrollton, GA: "The Five Kingdoms of Life"
2012 Biology advisor for Oak Grove Montessori School in Carrollton, GA
2012 Science fair co-organizer and advisor for Oak Grove Montessori School in Carrollton, GA
2011 Advisor for High School Science Fair participants (Carrollton and Fayette County High Schools in GA)
2010 Advisor for High School Science Fair participants (Carrollton and Fayette County High Schools in GA)
2010 Judge for the West Georgia Regional Science Fair in Carrollton, GA
2008 Advisor for High School Science Fair participants (Fayette County High School in GA)
2007 Judge for the West Georgia Regional Science Fair in Carrollton, GA
2006 Judge for *Science Olympiad* "Disease Detectives", University of South Alabama, Mobile, AL

Recent Awards and Honors

2018 Above and Beyond Award from UWG Risk Management/Environmental Health & Safety
2016 10-Years-of-Service Award from UWG
2011 5-Years of contributions to the UWG A-Day Campaign from the UWG Red & Blue Society

Graduate and Undergraduate Research and Teaching Mentorships at the University of West Georgia

Graduate Students (Thesis-Track M.S. in Biology)

Name of Student	*Time in Lab*	*Title of Research Project*
Kristina Andrews	2012	Starvation stress increases resistance to chlorhexidine in *Serratia marcescens*
Anabelle Weaver	2009-2012	Culture conditions affecting curdlan production by *Cellulomonas flavigena* strain KU
Philip Gosu	2010-2012	Variations in hydrogen peroxide resistance among strains of *Serratia marcescens*
Lakmal Siriwardana	2009-2010	The glucose-storage carbohydrates curdlan, trehalose and glycogen function as reserve compounds for *Cellulomonas flavigena*
Joseph Pittman	2006-2008	The starvation-stress response (SSR) of *Serratia marcescens*

American Society for Microbiology Undergraduate Research Fellows (ASM-URF)

Name of Student	*Time in Lab*	*Title of Research Project*
Kartika Angriani	2011-2012	Utilization of alternative carbon sources by clinical and environmental strains of *Serratia marcescens*

NSF Georgia-Alabama Louis Stokes Alliance for Minority Participation (LSAMP Program)

Name of Student	*Time in Lab*	*Title of Research Project*
Shernett Schermer	2014	Identification of RpoE-activating carbon-sources in *Salmonella enterica* serovar Typhimurium

UTeach – NSF Robert Nocye Teacher Scholarship Program

Name of Student	*Time in Lab*	*Title of Research Project*
Taylor Pappas	2015-2016	Preparation of bacteriological growth media for Microbiology (BIOL 3310) laboratory
Keisha Boyle	2015	Preparation of bacteriological growth media for Microbiology (BIOL 3310) laboratory

Undergraduate Student Research Assistants (UWG Student Research Assistantship Program – SRAP)

Name of Student	*Time in Lab*	*Title of Research Project*
Shakara Williams	2016-2017	Protein composition of the extracellular matrix produced by the cellulose-degrading bacterium *Cellulomonas flavigena*
Erica Bennett	2011-2012	Starvation-inducible genes involved in DNA protection and repair in *Salmonella*
Brittany Hargrove	2008-2010	Role of the pigment prodigiosin in the starvation-stress response of *Serratia marcescens*
Kayley Couch	2007-2008	Starvation-induced resistance of *Serratia marcescens* strains to heat and acid stress
Jonathan Oliver	2007-2008	Starvation-induced resistance of *Serratia marcescens* strains to heat and acid stress
Rebecca Waters	2006	Starvation-induced resistance of *Salmonella enterica* serovar Typhimurium to different classes of disinfectants

Undergraduate Students Enrolled in Advanced Undergraduate Biology Research (BIOL 4983)

Name of Student	*Time in Lab*	*Title of Research Project*
Makala Raglin	2018	The biofilm-planktonic growth cycle of *Cellulomonas flavigena*
Joseph Okafer	2018	The biofilm-planktonic growth cycle of *Cellulomonas flavigena*
Jessica King	2016	Starvation-induced resistance to the commonly-used disinfectant/antiseptic chlorhexidine in environmental and clinical isolates of *Serratia marcescens*
Berkley Stewart	2016	Starvation-induced resistance to the commonly-used disinfectant/antiseptic chlorhexidine in environmental and clinical isolates of *Serratia marcescens*
Brittany Fielder	2016	Starvation-induced resistance to the commonly-used disinfectant/antiseptic chlorhexidine in environmental and clinical isolates of *Serratia marcescens*
Shakara Williams	2016	Starvation-induced resistance to the commonly-used disinfectant/antiseptic chlorhexidine in environmental and clinical isolates of *Serratia marcescens*
Autumn Marshall	2014-2015	Role of the RpoE-regulated genes *slp* and *yeaY* in the starvation-stress response of *Salmonella enterica*
Sarah Brady	2014	Role of the RpoE-regulated genes *slp* and *yeaY* in the starvation-stress response of *Salmonella enterica*
Amelia Apperson	2014	A comparison of the cellulolytic activity of *Cellulomonas* species on carboxylmethylcellulose agar

Abraham Martinez	2014-2015	Role of the RpoE-regulated genes *slp* and *yeaY* in the starvation-stress response of *Salmonella enterica*; A comparison of the cellulolytic activity of *Cellulomonas* species on carboxylmethylcellulose agar
Jessica King	2013-2015	Role of the RpoE-regulated genes *slp* and *yeaY* in the starvation-stress response of *Salmonella enterica*; Identification of RpoE-activating carbon-sources in *Salmonella enterica* serovar Typhimurium
Shernett Schermer	2013-2014	Identification of RpoE-activating carbon-sources in *Salmonella enterica* serovar Typhimurium
Kadiatou Diallo	2013	Variations in the catalase activity of clinical and environmental *Serratia marcescens* strains
Tenesha Strong	2013	Variations in the catalase activity of clinical and environmental *Serratia marcescens* strains
Zachariah Bell	2013	Differing strategies for cellulose degradation in the genus *Cellulomonas*
Lakesha Johnson	2012-2013	Variations in hydrogen peroxide resistance among different *Serratia marcescens* isolates
Ashley Anthony	2011-2012	Starvation-inducible genes involved in DNA protection and repair in *Salmonella*
Diana Kissman	2011-2012	Starvation-inducible genes involved in DNA protection and repair in *Salmonella*
Nicole Alam	2011	Isolation of enterobacteria from environmental samples
Tsedey Mekbib	2011	Isolation of enterobacteria from environmental samples
Katrika Agriani	2010-2012	Growth of *Serratia marcescens* strains on alternative carbon sources
Taylor Pike	2010	Production of curdlan from various carbon sources by *Cellulomonas flavigena* KU
Jamaal Adamson	2010	RpoS-regulated phenotypes of clinical and environmental *Serratia marcescens* strains
Aaron Gall	2009	Determination of trehalose, curdlan, and glycogen in culture samples of *Cellulomonas flavigena* KU
LaVarris Byse	2008	Extracellular enzymes produced by *Serratia marcescens* in response to starvation stress
Sheila Adjekuko	2008	Starvation-induced resistance of *Serratia marcescens* to heat and acid stress
Jennine LaCroix	2008	Starvation-induced resistance of *Serratia marcescens* to heat and acid stress
Ramlat Idris	2008	Optimal growth temperature of the opportunistic pathogen *Kluyvera cryocrescens*
Amanda Gould	2008	Biochemical identification of a non-pigmented *Serratia marcescens* soil isolate
Aisha Linge	2007	Starvation-induced resistance of *Serratia marcescens* strains to heat and acid stress
Linda Adebisi	2006-2007	Starvation-induced resistance of *Serratia marcescens* strains to heat and acid stress; Environmental-stress tolerances of a *Citrobacter freundii* soil isolate
Rebecca Waters	2007	Environmental-stress tolerances of a *Pantoea agglomerans* soil isolate
Kishaun Burns	2007	Identification and growth characteristics of an *Hafnia alvei* strain isolated from soil

Advanced Academy of Georgia Students

Name of Student	*Time in Lab*	*Title of Research Project*
Cameron Kee	2013	Isolation of cellulose degrading bacteria using a new cellulose enrichment culture method

Research Volunteers and "Post-Bac" Students

Name of Student	*Time in Lab*	*Title of Research Project*
Taylor Wolf	2018	The biofilm-planktonic growth cycle of *Cellulomonas flavigena*
Javon Swint	2018	The biofilm-planktonic growth cycle of *Cellulomonas flavigena*
Daniel Jackson	2016	Starvation-induced resistance to the commonly-used disinfectant/antiseptic chlorhexidine in environmental and clinical isolates of *Serratia marcescens*
Clark Taylor	2006	Starvation-induced resistance of *Salmonella enterica* serovar Typhimurium to phenolic compounds

Undergraduate Research Mentorships at the University of South Alabama

Department of Biomedical Sciences Honors Students

Name of Student	*Time in Lab*	*Title of Research Project*
Gowri Srinivas	2003-2005	Role of the RpoS-dependent carbon-starvation-inducible *narU* gene, encoding a nitrite extruder protein, in the starvation-stress response (SSR) of *Salmonella*
Jessa McCarthy	2003-2005	Regulation and role of small heat-shock proteins (sHSP) in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium
Dao Pham	2004	Role of the cold-shock-inducible *lpxP*-encoded palmitoleoyl transferase, involved in fatty acylation of Lipid A, in the starvation-stress response (SSR) of *Salmonella*
Sheena Thomas	2003-2004	The effects of shifts in carbon-sources on the activity of the alternative sigma factor RpoE in *Salmonella enterica* serovar Typhimurium
Rubina Khan	2001-2003	Characterization of the *aidB* gene in alkylation repair during the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium
Mary Patrick	2001-2003	Molecular characterization of the *narU-narZYWV* locus of the *Salmonella* chromosome
Susie Wimpee	2000-2001	The inorganic polyphosphate kinase (*ppk*) gene is not required for *Salmonella's* starvation-stress response (SSR)

National Science Foundation Research Experiences for Undergraduates (NSF-REU) Students

Name of Student	*Time in Lab*	*Title of Research Project*
Kristina Ravendran	2005	DegS-independent activation of the extracytoplasmic function sigma factor RpoE during shifts from growth on glucose to certain secondary C-sources
Jessa McCarthy	2003-2004	Identification and characterization of RpoE-dependent C-starvation inducible genes in *Salmonella enterica* serovar Typhimurium
Kimberly Crabtree	2002-2004	Role of the alternative sigma factor RpoN in the regulation of the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium
Erin Johnson	2001-2003	Effects of carbon-source on RpoE activation in *Salmonella*

University Council on Undergraduate Research (UCUR) Students and NIH-AREA Grant (R15) Students

Name of Student	*Time in Lab*	*Title of Research Project*
Ivana Pejatovic	2005	Investigation of a DegS-independent pathway of RpoE activation during the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium
Jumin Sundae	2005	Role of the phosphohistidine phosphatase SixA, a modulator of the ArcBA signal transduction pathway, in the RpoE-regulated starvation-stress response (SSR) of *Salmonella*
Lam Pham	2005	Role of the *ddg* (*lpxP*)-encoded palmitoleoyl transferase, involved in fatty acylation of Lipid A, in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium
Kristy Nicholson	2001-2005	Molecular cloning and characterization of the *stiC-pbpG* region of the *Salmonella enterica* chromosome
Reshonda Lilly	2004	Cloning and mutagenesis of the *sixA* gene encoding the SixA phosphohistidine phosphatase of *Salmonella enterica* serovar Typhimurium
Vinh Nguyen	2000-2001	The development of a Mu*dJ* (*lac*-Kan^r) chromosomal insertion strain library for the identification and characterization of mutants defective in C-starvation generated polymyxin resistance
Karronno Battle	2000-2001	The role of the OmpR regulatory protein in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium

Visiting Researchers

Name of Student	*Time in Lab*	*Title of Research Project*
Sebastian Rieck	2005	The role of outer-membrane protein OmpC in the activation of the extracytoplasmic function sigma factor RpoE during the starvation-stress response (SSR) of *Salmonella*
Camille Macé	2004	Role of the EAL-domain of YdiV in the starvation-stress response (SSR) of *Salmonella enterica* serovar Typhimurium and its regulation by the alternative sigma factor RpoE

Referees

1. **Dr. Christopher Tabit**
   Professor and Former Chair of Biology
   Department of Biology
   University of West Georgia
   Carrollton, GA 30118
   (678) 839-4016
   ctabit@westga.edu

2. **Dr. Gregory Payne**
   Professor and Current Chair of Biology
   Department of Biology
   University of West Georgia
   Carrollton, GA 30118
   (678) 839-4040
   gpayne@westga.edu

3. **Dr. Michael P. Spector**
   Former Professor & Director of Honors Research (retired)
   Department of Biomedical Sciences
   University of South Alabama
   Mobile, AL 36688
   (251) 445-9274
   mspector@southalabama.edu