

***Curriculum Vitae***  
**Terrence J. Ravine, Ph.D.**

- CLS 499 - Senior Honors Project

1999-2001

Adjunct Faculty: University of South Alabama, Keesler Air Force Base, Biloxi, MS

Course taught:

- CLS 490 - Elective Practica

Adjunct Instructor: Mississippi Gulf Coast Community College/Keesler Center, Biloxi, MS

1996-1997,  
1999-2001

Courses taught:

- BIO 1134 - General Biology I
- BIO 1144 - General Biology II

**Invited Lecturer:**

- Alpha Epsilon Delta (AED) - Research Panel Discussion, November 3, 2021.
- Alpha Epsilon Delta (AED) - Research Panel Discussion, March 24, 2021.
- BMD 201 -

2021 (May-July)

- Mentor - Alexandria E. Fay, Department of Biomedical Sciences. Project - Evaluating Reflectance Spectroscopy as a Method to Measure the Amount of Bacterial Pigment Present on Fabric Samples. Office of Undergraduate Research, University of South Alabama, Mobile, AL.

2019 (May-July)

- Mentor - Katelyn N. Rogers, Department of Biomedical Sciences. Project - Developing a Novel Quantitative Assay to Determine the Antibacterial Effectiveness of Chemically Synthesized Molecules Attached to Fabric Surfaces. Project was selected for oral presentation at USA Undergraduate Research Forum, University of South Alabama, Mobile, AL.

### **Directed Research (Undergraduate)**

2021-Present

- Edgar Escalante (Biomedical Sciences) Evaluation of 8-Hydroxyquinoline (8HQ) and its Derivatives to Eliminate Dormant Bacterial Spores.
- Tia Lofton (Biomedical Sciences) Determining Lowest Concentration of Biocidal Dye Required to Control Bacterial Growth.
- Brianna Dixon (Biomedical Sciences) Determining Effects of Differences in Chloride Concentration of Biocide Dyed Fabric Samples
- Anah Hughes/Baily Welch (Biomedical Sciences) Evaluating Antimicrobial Activity of Biogenic Silver Nanoparticles Against Antibiotic Resistant Bacteria.
- Sicily L. Hardy (Biomedical Sciences) Determining Antimicrobial Activity of a Novel Biocide Dye Incorporated Into Fabric.
- Alexandria E. Fay (Biomedical Sciences) Evaluating Reflectance Spectroscopy as a Method to Measure the Amount of Bacterial Pigment Present on Fabric Samples.
- Mark H. Eggers (Biomedical Sciences), Alexandria E. Fay (Biomedical Sciences) Developing a Quantitative Chromogenic Assay to Detect Intermediate Levels of Antibacterial Activity of Fabric Treated with Biocides.
- Makenna A. Howell (Biomedical Sciences). Measuring Antibacterial Effectiveness of Various Biogenic and Chemically Produced Metallic Nanoparticles.

### **Directed Research (High School International Baccalaureate Program)**

2020-2022

- Mentor for Dev V. Mehta, "Bacterial Spores Derived from *Bacillus cereus* Promote Attachment to a Radiation Therapy Immobilization Form". International Baccalaureate Program, Davidson High School, Mobile, AL.

2017-2018

- Mentor for Julie Dees, "Bacterial Growth Inhibition Study Using Natural Oils (Lemon grass, Cinnamon, Tea tree (melaleuca))", International Baccalaureate Program, Davidson High School, choole-ogram,

**University**



## 5. Ravine TJ

**Abstracts/Presentations:**

1. *Contamination of Orthotic Thermoplastic Materials with Antibiotic-resistant Bacteria Associated with Medical Device Biofilms*







Affairs, Interprofessional Research Across the Health-Related Professions Grant, \$4,750, 2018.

6. "Assessing Attachment/Survival Capability of Three Opportunistic Fungal and Bacterial Pathogens on Thermoplastic Immobilization Forms Used During Patient Radiation Therapy" (PI). Awarded by the University of South Alabama Division of Academic Affairs, Interprofessional Research Across the Health-Related Professions Grant, \$3,071, 2017.
7. "*In vitro* Assessment of Human Platelet Aggregation Agonist Arachidonic Acid to Stimulate *Dicytostelium discoideum* Slug Formation" (PI). Awarded by the University of South Alabama Research Council (USARC), \$4,910, 2007.
8. "Cytofluorometric Profiling of Amoebic Plasma Membrane Surface Proteins Using Human Hematopoietic Clusters of Differentiation (CD) Marker Antibodies" (PI). Awarded by the University of South Alabama Research Council (USARC), \$1,200, 2005.

#### **Extramural Funding:**

1. "Evaluating Patient Immobilization Masks for Bacteria Causing Healthcare-Associated Infections" (Co-PI). American Society of Radiologic Technologists (ASRT) Foundation, Albuquerque, NM. \$10,000, 2024.
2. "Determination of Reactive Oxygen Species (ROS) Formation by Oxyion Air Purifiers and Their Effect on Bacteria" (Co-PI). Sponsored Project, Oxyion, Fresno, CA. \$6,306, 2020-21.
3. "Evaluation of Bacterial Attachment on Four Different Thermoplastic Immobilization Forms Used During Patient Radiation Therapy Treatment" (PI). Support received in the form of a monetary donation and/or material goods valued at \$1,030, 2016.

#### **Honors/Awards:**

1. Outstanding Mentor, University of South Alabama Office of Undergraduate Research, 26<sup>th</sup> Annual USA Undergraduate Research Symposium, October 23, 2024.
2. "Top Prof" Award, Azalea Chapter of Mortar Board National Honor Society, University of South Alabama, 2024.
3. "Top Prof" Award, Azalea Chapter of Mortar Board National Honor Society, University of South Alabama, 2023.
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Pathogens on Radiation Therapy Thermoplastic Immobilization Forms” published in the fall 2017 issue of *Radiation Therapist*, \$1,000 cash prize awarded 1 June 2018.

9. “Top Prof” Award, Azalea Chapter of Mortar Board National Honor Society, University of South Alabama, 2018.
10. Faculty Award for Excellence in Research, College of Allied Health Professions, University of South Alabama, April 2018.
11. Inducted into Alpha Eta, the National Scholastic Honor Society for the Allied Health Professions. April 2018.
12. “Top Prof” Award, Azalea Chapter of Mortar Board National Honor Society, University of South Alabama, 2017
13. Harold Silverman Distinguished Author Award, American Society of Radiologic Technologists (ASRT), for the manuscript: “Risk of Patient Infection from Heating Appliances Used to Produce Thermoplastic Immobilization Devices” published in the fall 2014 issue of *Radiation Therapist*, \$1,000 cash prize awarded 1 June 2015.

#### **Editorial Activities:**

#### **Journals**

1. *Applied Biosciences*, MDPI Publications, Basel Switzerland.
2. *Scientific Reports*, Nature Publishing Group, London UK.
3. *Sustainability*, MDPI Publications, Basel Switzerland.
4. *Healthcare*, MDPI Publications, Basel Switzerland.
5. *Journal of Antimicrobial Agents*, Hilaris Publishing, Brussels Belgium.
6. *International Journal of Environmental Research and Public Health*, MDPI Publications Basel Switzerland.
7. *Antibiotics*, MDPI Publications, Basel Switzerland.
8. *Pathogens*, MDPI Publications, Basel Switzerland.
9. *Toxins*, MDPI Publications, Basel Switzerland.
10. *Access Microbiology*, Microbiology Society, London UK.
11. *Infectious Disease Reports*, MDPI Publications, Basel Switzerland.
12. *Medical Sciences*, MDPI Publications, Basel Switzerland.

#### **Grants (Internal)**

Reviewed 21 Grant Pre-Proposals for Research and Scholarly Development Grant (RSDG), Office of Research and Economic Development, University of South Alabama, Mobile, AL. October 2024.

## Didactic Material (Review/Design)

### 1. Pearson Education (2010-Present)

- Pedagogical expert for both human anatomy & physiology and microbiology disciplines. Independent contributor performing a wide variety of activities including accuracy checks, writing content, review of new and/or revised textbook chapters & laboratory manuals, and interactive web-based instruction (WBI) materials. The latter is performed in support of Pearson Educations' Mastering A&P and Mastering Microbiology learning management sites. Work efforts involve Interactive Physiology (IP) 2.0 and Interactive Labs for Microbiology. Examples include review of alpha/beta module storyboard analysis, question writing, and dynamic learning module development. Developed questions in support of "In the Clinic" videos and "Why This Matters" and Making Connections" units for Marieb & Hoehn, Human Anatomy & Physiology textbook, 10/11 eds and associated laboratory manual. Reviewed/edited "In Focus" in-depth concept figures seen in most chapters of this textbook. Authored the first eGlossary for Marieb & Hoehn, Human Anatomy & Physiology textbook, 12<sup>th</sup> edition.

### 2. McGraw-Hill (2014-2017)

- Developmental Review Panel (Autonomic Nervous System, Endocrine System, Lymphatic System and Immunity) of VanPutte, Regan, & Russo: *Seeley's Anatomy & Physiology*, 11<sup>th</sup> ed, May 2017.
- Review of LearnSmart Labs "Endocrine Structure and Function", "Digestive System", "Respiratory System" modules, June - July 2014.

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### **Departmental Committees or Responsibilities:**

- Equipment & Compliance Committee, 2019-Present.
- Recruitment & Marketing Committee (Chairperson), 2019
- Promotion & Tenure Committee, Biomedical Sciences, 2018-Present
- Promotion & Tenure Committee (Cardiorespiratory Care, Physical Therapy, & Radiologic Sciences Departments), 2017
- Biomedical Sciences, University Honor's Research Committee Member, 2011-Present
- Biomedical Sciences, New Student Advising/Registration, 2010-2019
- Biomedical Sciences, Faculty Search Committee (as required), 2010-Present
- Biomedical Sciences, Curriculum Development Committee, 2010-2019
- Clinical Laboratory Sciences, Student Advising, 2002-2009.
- Clinical Laboratory Sciences, Southbound Orientation, 2002-2009.
- Clinical Laboratory Sciences, Curriculum Development Committee, 2002-2009.
- Clinical Laboratory Sciences, Admissions Committee, 2002-2009.
- Clinical Laboratory Sciences, Faculty Search Committee, 2003-2009.

### **College Committees or Responsibilities**

- College of Allied Health Professions Research Committee, 2022-Present.
- College of Allied Health Professions Research and Scholarly Activities Task Force, 2020 – 2022.
- Biosafety Officer, Pat Capps Covey College of Allied Health Professions, 2006-Present.
- Biosafety Committee (Co-chair), Pat Capps Covey College of Allied Health Professions, 2020- Present.
- Biosafety Committee (Chair), Pat Capps Covey College of Allied Health Professions, 2006-2020.
- Dean's Advisory Council (Member), Pat Capps Covey College of Allied Health Professions, 2003-2005.

### **University Committees or Responsibilities:**

- University of South Alabama Veterans Affairs Committee, Member, 2019 -2024
- University of South Alabama Recreation Center Advisory Committee, 2015-2019.

### **Other Professional Activities**

- Editorial Board Member, Microbiology, Pearson Education, 2021-Present.
- Advisory Board Member, Anatomy & Physiology, Pearson Education, 2016-2023
- Advisory Board Member, Interactive Physiology (IP) 2.0, Pearson Education, 2015-2023
- Mentor, USA Cardiorespiratory Sciences Senior Year Projects, 2009-2020.

### **Extramural Service Related to Profession or University:**

- Faculty Presenter - Go Explore Math & Science (GEMS), Interactive Display: Solving Medical Mysteries. USA Student Ballroom, November 16, 2024.
- Faculty Presenter- Go Explore Math & Science (GEMS), Interactive Display: Radiation Therapy Meets Medical M2 ( )JEM7Sx 2023 Sural cal M2 ( )JEM7Sx 2023 Sural er6.6 (y)8.9 ( P)1.9 (r)-5

- Faculty Volunteer - Jubilee BEST (Boosting Engineering Science and Technology) regional high school/middle school robotics competition, USA Mitchell, October 2016 - 2020.
- Volunteer/Special Awards Judge - Jubilee BEST (Boosting Engineering Science and Technology) regional high school/middle school robotics competition, USA Mitchell Center, October 24, 2015.
- High School Science Mentor - Involved in all phases of robot design & construction for Jubilee BEST Robotics program. Achieved two back-to-back regional wins in 2011-2012 at USA Mitchell Center competition each year advancing the team to Super-Regionals competition held at Auburn University, August-December 2010-2014.
- Expanding Your Horizons (EYH)/ Girls in Engineering, Math & Science (GEMS) - Presented g -40.38 -12cing pxtt 2012 apandi(en6.7uc)8.8hops2 ( )1.5 (S)1.c 0 Tw 2.vupe