



Faculty/ Student Research

Poster Presentations

Increasing Student Performance and Engagement with Interactive Digital Laboratory Manuals and Study Guides in an Introductory Anatomy & Physiology Course

- **Overview:** First-year anatomy and physiology undergraduates often struggle to optimize lab time and may feel overwhelmed by laboratory practical exams. To address this, customized exercises were developed using the Lt software platform to guide students through laboratory activities. Interactive study guides were also created to better prepare students for lab practicals.
- **Outcomes:**
 - **Increased Lab Practical Averages:** Significant improvements in lab practical exam scores compared to the previous year.
 - **Enhanced Student Engagement:** Students showed increased engagement during lab sessions due to the interactive nature of the materials.
- **Workshop Details:** The process of utilizing Lt and open educational resources to create interactive lab exercises and study guides was demonstrated and practiced in a workshop setting.

LOM (Laboratory Operations Management)

Accepted Presentations

- **Shannon Hogan, Jennifer Krusinger, Niloofar Gholamrezaei, and Diana Perdue.**
 - **Title:** *Inclusive AI-Integration through a Studio Arts Model at a Small Liberal Arts College*
 - **Conference:** 2024 Innovative Education Conference: Inclusive Teaching in an Ever-changing Learning Environment.

Biology

Accepted Presentations

Posters

- **Hannah Morine, Santiago Pedraza Novak, Nia Ramos, Mariama Sanneh, Coriander Tighe, Aria Ulmer, Shannon Hogan.**
 - **Title:** *Development of a Novel Phage Display Protocol to Identify a Peptide Diagnostic for Early-Stage Epithelial Ovarian Cancer*
 - **Conference:** 2023 American Medical Student Association Conference.
 - **Award:** Best Overall Pre-medical: Honorable Mention.

- **Shannon Hogan, Jennifer Marra, Molly Belles, Dexter Jeanty, Laura Kunz.**
 - **Title:** *Virology Laboratory Curriculum Development*
 - **Conferences:**
 - 2020 Wheaton College Women in STEM Conference (postponed).
 - 2019 Next-In Bio.
- **Shari Litch Gray, PhD.**
 - **(2022):** *The Role of Independent Study Using Animal Model Research in Preparing Undergraduates in Biology.*
 - **Conference:** New England Faculty Development Consortium Fall Conference, Worcester, MA.
- **Shari Litch Gray, PhD.**
 - **(2021):** *The Role of Independent Study Using Animal Model Research in Preparing Undergraduates in Biology.*
 - **Conference:** 16th International Zebrafish Society Conference, Montreal, Quebec, Canada.
- **Shari Litch Gray, PhD.**
 - **(2020):** *Role of Independent Study in Preparing Undergraduates in Biology.*
 - **Conference:** AAC&U Massachusetts Chapter of Project Kaleidoscope (PKAL) STEM.
- **Shari Litch Gray, PhD.**
 - **(2020):** *Design of Independent Study Curriculum for Undergraduate Students in the Zebrafish Research Facility at Regis: Sabbatical Summary.*
 - **Event:** Fall Faculty Meeting, Regis College.
- **Kristen Willems, PhD.**
 - **(2024):** *Creating a Pre-Medical Certificate for Undergrads: A Holistic Approach to Pre-Health Advising.*
 - **Conference:** National Association of Advisors for the Health Professions (NAAHP) National Conference, Cincinnati, OH.
- **Kristen Willems, PhD.**
 - **(2020):** *Building a Pre-Med Program at a Small College.*
 - **Conference:** NAAHP National Conference (canceled due to the pandemic).
- **Kristen Willems, PhD.**
 - **(2019):** *Improving the Available Support for Pre-Medical and Pre-Veterinary Students.*
 - **Event:** Regis Fall Faculty Workshop, Weston, MA.
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 - **Conference:** AMSA Annual National Conference, Washington, DC.
- **Shari Litch Gray, PhD.**
 - **(2018):** *Establishment of a Zebrafish Colony and Undergraduate Research Opportunities for Regis Students and Faculty.*
 - **Event:** Regis Fall Faculty Workshop, Weston, MA.

- **Xu C., Xiao D., Su B., Jaime Miguel Saveron, Daniela.**
 - **(2023):** *Longitudinal Changes in Proteomic Biomarkers in Alzheimer's Disease and Cardiovascular Disease.*
 - **Conference:** Gerontological Society of America (GSA) Annual Scientific Meeting, Tampa, FL.
- **Xiao D., Hidden N, Evangelista E., Wang, and Sabolek H..**
 - **(2023):** *The Potential Role of Ephrins and Calbindin in Anterior Cingulate of Alzheimer's Disease.*
 - **Conference:** Society for Neuroscience Meeting, Washington D.C.
- **K. Willems, M. Schmidt, and R. Woodland.**
 - **(2015):** *Pim Kinases Significantly Impact Humoral Immune Responses.*
 - **Conference:** American Association of Immunologists Annual Meeting, New Orleans, LA.

Neuroscience

Accepted Student-Mentored Abstracts and Poster Presentations

(*Indicates undergraduate authorship)

- **C. Thomas*, C. Kozul*, A. Plummer*, J. Szmydynger-Chodobska, A. Chodobski, S. Threlkeld.**
 - **Title:** *Spatial Learning Performance after Mild TBI and Treatment with a Novel Multi-Function Peptide.*
 - **Conference:** NEURON Conference, Feb. 2017.
- **E. Morales*, V. Balan*, J. Duplan*, J. Lewis*, J. Szmydynger-Chodobska, A. Chodobski, S. Threlkeld.**
 - **Title:** *Auditory Processing Improvements after Mild TBI and Treatment with a Novel Multi-Function Peptide.*
 - **Conference:** NEURON Conference, Feb. 2017.
- **E.I. Morales-Cestero*, C. Kozul*, V. Balan*, J. Duplan*, J. Lewis*, J. Szmydynger-Chodobska, A. Chodobski, S.W. Threlkeld.**
 - **Title:** *Effects of CN2097 on Auditory Sensory Processing and Neocortical Volume after Mild TBI.*
 - **Conference:** NEURON Conference, Feb. 2018.
- **M. Bennett*, G. Rosen, H.R. Fitch, S. Threlkeld.**
 - **Title:** *Structural Analysis of Medial Geniculate Nuclei in a Rat Model of Periventricular Nodular Heterotopia.*
 - **Conference:** NEURON Conference, Feb. 2018.
- **S. Laborde*, C. Thomas*, E. Morales*, A. Plummer*, J. Szmydynger-Chodobska, A. Chodobski, S. Threlkeld.**
 - **Title:** *Spatial Learning Improvements after Mild TBI and Treatment with a Novel Multi-Function Peptide.*
 - **Conference:** NEURON Conference, Feb. 2018.
- **P. Seremetis*, E. Morales*, M. Hammond*, K. Polanco*, J. Szmydynger-Chodobska, A. Chodobski, S. Threlkeld.**

- **(2019):** *Effects of Lubricin on Neocortical Volumes Following Traumatic Brain Injury.*
 - **Conference:** NEURON Conference.
- **D. Laflamme*, J. Szmydynger-Chodobska, A. Chodobski, S. Threlkeld.**
 - **(2019):** *Modeling Traumatic Brain Injury: Effects of Controlled Cortical Impact on Spatial Learning and Auditory Sensory Processing in Sprague-Dawley Rats.*
 - **Conference:** NEURON Conference.
- **A.B. Bradford, M. Hernandez*, E. Kearney*, L. Theriault*, Y.P. Lim, B.S. Stonestreet, S.W. Threlkeld.**
 - **(2019):** *Effects of Early Anti-Inflammatory Treatment and Timing of Working Memory Training on Long-Term Cognitive Outcomes in a Model of Neonatal Hypoxia-Ischemia.*
 - **Conference:** Society for Neuroscience, Chicago.
- **A. Felice*, T. O'Brien*, C. Faura*, S.W. Threlkeld.**
 - **(2022):** *Outcomes of IAIP Treatment after Neonatal Hypoxia and Exposure to a Working Memory Task on Basal Dendritic Length in CA1 of Juvenile and Adolescent Rodents.*
 - **Conference:** NEURON Conference, North Haven, CT.
- **M. Mananah*, S. Threlkeld.**
 - **(2022):** *Effects of Lubricin on Neuronal and Glial Populations in Auditory Cortex after Traumatic Brain Injury.*
 - **Conference:** NEURON Conference, North Haven, CT.
- **L. Terceira-Quinonez*, S.W. Threlkeld.**
 - **(2023):** *Effects of Hypoxia-Ischemia in Neonates on Cortex, Corpus Callosum, and Thalamus.*
 - **Conference:** NEURON Conference, North Haven, CT.
- **A. Courteau*, S.W. Threlkeld.**
 - **(2023):** *Effects of Neonatal Hypoxia-Ischemia on Volumes of Anterior Cortex and Ventricles after Treatment with Inter-Alpha Inhibitor Proteins.*
 - **Conference:** NEURON Conference, North Haven, CT.
- **L. Belschner*, S.W. Threlkeld.**
 - **(2023):** *Effects of Hypoxia-Ischemia on Neuronal Spine Density and Dendritic Length in Prefrontal Cortical Neurons.*
 - **Conference:** NEURON Conference, North Haven, CT.
- **D. De Juan*, S.W. Threlkeld.**
 - **(2023):** *Volume Reconstruction and Analysis of Hippocampus and Posterior Cortex in Rats with Neonatal Hypoxia-Ischemia.*
 - **Conference:** NEURON Conference, North Haven, CT.

Student Papers in Peer-Reviewed Journals

- **M. Bennett, A. Chin, H.J. Lee, E. Morales Cestero*, N. Strazielle, J.F. Ghersi-Egea, S.W. Threlkeld, T.A. Schmidt, H.A. Richendrfer, J. Szmydynger-Chodobska, G.D. Jay, A. Chodobski.**
 - **(2020):** *Proteoglycan 4 Reduces Neuroinflammation and Protects the Blood-Brain Barrier after Traumatic Brain Injury.*
 - **Journal:** Journal of Neurotrauma, 38(4): 385-398.
- **A. Bradford, M. Hernandez*, E. Kearney*, L. Theriault*, Y.P. Lim, B.S. Stonestreet, S.W. Threlkeld.**
 - **(2020):** *Effects of Juvenile or Adolescent Working Memory Experience and Inter-Alpha Inhibitor Protein Treatment after Neonatal Hypoxia-Ischemia.*
 - **Journal:** Brain Sciences, 10(12): 999.
- **S.W. Threlkeld, E. Morales Cestero*, A.B. Bradford, J. Marshall, J. Szmydynger-Chodobska, A. Chodobski.**
 - **(2022):** *Deficits in Acoustic Startle Reactivity and Auditory Temporal Processing After Unilateral Traumatic Brain Injury.*
 - **Journal:** Neurotrauma Reports, 3(1): 207-216.
- **D. Xiao, K. Wang, L. Theriault*, E. Charbel*;** Alzheimer's Disease Neuroimaging Initiative.
 - **(2022):** *White Matter Integrity and Key Structures Affected in Alzheimer's Disease Characterized by Diffusion Tensor Imaging.*
 - **Journal:** European Journal of Neuroscience, 56(8): 5319-5331.

Biomedical Engineering

Invited Keynote

- **W. Niu*, H.P. Hsu, S. Myron.**
 - **(2024):** *Effects of Extracorporeal Shock Wave Stimulation on Bone Marrow for Articular Cartilage Reconstruction: A Goat Model.*
 - **Conference:** International Conference on Biotechnology and Bioinformatics, Vancouver, Canada.
 - **Note:** *Indicates oral presenter and corresponding author.

Poster Presentation

- **E.M. Saint Paul#, O. Sergent, G. Christ.**
 - **(2022):** *Muscular Regeneration Analysis of Volumetric Muscle Loss and Hydrogel Treatment.*
 - **Conference:** Annual Meeting of the Biomedical Engineering Society (BMES), San Antonio, TX.
 - **Note:** # Indicates undergraduate authorship.

Chemistry

Presentations

- **E.E. McQuaid, L.A. Bishop.**
 - **(2023):** *Increasing Student Accountability by Fostering Self-Efficacy Through Student Involvement.*
 - **Events:**
 - Regis College Faculty and Staff DEI Lunch and Learn Series, Weston, MA.

- New England Association of Chemistry Teachers Conference, Harvard, MA.
- **E.E. McQuaid.**
 - **(2016):** *Traditional Lecture to Flipped Classroom.*
 - **Conference:** New England Association of Chemistry Teachers Conference, Weston, MA.
 - **(2018):** *Fostering Science Identity of Underrepresented Groups in STEM through Student Involvement.*
 - **Conference:** Boston College 18th Annual Diversity Challenge, Chestnut Hill, MA.
 - **(2019):** *Title III Implementation of Adaptive Technology Software in CH 105: Introduction to General, Organic, and Biochemistry.*
 - **Event:** Regis College Fall Faculty Workshop, Weston, MA.