**Affordable Learning Georgia Textbook Transformation Grants**

**Final Report for Mini-Grants**

# General Information

Date: December 18, 2018

Grant Round: 10

Grant Number: M2

Institution Name(s): University of Georgia

Team Members:

DeLoris Wenzel Hesse, Associate Professor, Department of Cellular Biology, University of Georgia, [hesse@uga.edu](mailto:hesse@uga.edu)

Dan McNabney, Senior Lecturer, Department of Cellular Biology, University of Georgia, [daniel.mcnabney@uga.edu](mailto:daniel.mcnabney@uga.edu)

Project Lead: DeLoris Hesse

Course Name(s) and Course Numbers: CBIO2200L and CBIO2210L

Final Semester of Project: Fall 2018

***If applicable to your project:***

Average Number of Students Per Course Section: 140

Number of Course Sections Affected by Implementation of Revised Resources: 4

Total Number of Students Affected by Implementation of Revised Resources: 480 students

# 1. Project Narrative

***Describe the course of your revision or ancillary creation project, including a summary of your project’s purpose, plan, and timeline.***

This project was awarded to enhance an ALG Round 5 grant that was completed in 2015. In 2018, the project team received a technology grant through UGA that allows us to incorporate more “hands-on” analytical laboratory experiences for our students. Doing so required a redesign of the curriculum as well as the laboratory manual we currently use. This ALG mini-grant allowed us to redesign our curriculum and re-write, re-organize, and streamline the components of our curricula and allows us to incorporate inquiry-based physiology laboratory exercises into our curriculum.

Our older laboratory manual was based on a systems approach, as are all other anatomy laboratory manuals that are available through major publishers. Due to a number of constraints and pedagogical concerns, we determined that a regional approach would better support our learning outcomes as well as provide students with a more cohesive and holistic approach to learning anatomy. Such a lab manual is not available commercially. Thus, the redesign of our Anatomy and Physiology curriculum required a complete restructuring of our laboratory curriculum as well as a reorganization of the laboratory manual.

The redesign of the curriculum and laboratory manual began over the summer, and was completed in time to incorporate it into the Fall 2018 curriculum. We have successfully revised and reordered the curriculum in a way that will allow us to better teach anatomy as well as introduce new physiology experiments in the upcoming academic year.

***The original works which were revised or added to, with links. For example, if you revised an open textbook, give the title, author, and link.***

The laboratory manuals that we revised are

* Hesse, DeLoris; Cozart, Deanna; Szymik, Brett; and Nichols, Rob, "UGA Anatomy and Physiology 1 Lab Manual" (2017). *Biological Sciences Open Textbooks*. 13.   
  https://oer.galileo.usg.edu/biology-textbooks/13
* Hesse, DeLoris; Cozart, Deanna; Szymik, Brett; and Nichols, Rob, "UGA Anatomy and Physiology 2 Lab Manual" (2017). *Biological Sciences Open Textbooks*. 14.   
  https://oer.galileo.usg.edu/biology-textbooks/14

***A narrative description of how the project’s plan was carried out.***

Upon learning of this award, the project team met with all Anatomy and Physiology instructors with the intention of gathering input with regard to changes that needed to be accomplished through this grant. During this meeting, it was decided that a complete revision of the API curriculum was necessary, and this revision will require major re-ordering and re-writing of the laboratory manual. Those revisions were made during Summer 2018 and incorporated into our courses during Fall 2018.

***Lessons learned, including anything you would do differently next time.***

The project team was familiar with the limitations of working with the OpenStax editing software, thus we decided that for this project we would create our document in the learning management system used by the University of Georgia. We thought this was a good compromise that permits “in real time” editing of materials. In the future, we plan to host our lab manual on the Departmental server.

# 2. Materials Description

***Describe all the materials you have created or revised as part of this project. These descriptions may be used in the*** [***GALILEO Open Learning Materials***](https://oer.galileo.usg.edu/) ***repository in the official description field.***

The original work that we revised can be found at these links: [https://oer.galileo.usg.edu/biology-textbooks/13/](https://oer.galileo.usg.edu/biology-textbooks/13/;https://oer.galileo.usg.edu/biology-textbooks/14/) and <https://oer.galileo.usg.edu/biology-textbooks/14/>

The materials that have been created through this mini-grant have been uploaded though the portal provided by ALG. These materials are hosted in D2L for our students who are or have been enrolled in our courses.

# 3. Materials Links

***If you are hosting your materials in places other than GALILEO Open Learning Materials, please provide these links in this section. Otherwise, leave blank.***

# 4. Future Plans

***Describe any planned or actual papers, presentations, publications, or other professional activities that you expect to produce that reflect your work on this project.***

We do not have plans to produce any papers from this mini-grant *per se*, but will include the qualitative and quantitative data we have gathered into a larger-scale project that we will complete by Fall 2019. In this paper we will compare student performance in an undergraduate anatomy curriculum that is organized in a regional (versus systemic) approach.

***Describe any plans to revise or add to these materials in the future.***

We have added members to our original team with the intention of incorporating and revising all laboratory manuals used in all anatomy courses taught in the Department. In the future we will provide materials to all sections of Anatomy and Physiology I and II, and Advanced Human Gross Anatomy. This will affect more than 1600 students each year and will result in a significant savings for these students. We will also view all material during the summer and revise as needed.