

**Title of Grant:** A gross anatomy collaboration to establish clinically relevant content and prepare to pioneer a cadaver-based lab in Anatomy and Physiology

**F2008 – 200P-FF**

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**Abstract:**

A recent trend in anatomical education has been to shift from solely teaching anatomical facts to teaching material that has clinical relevance. In a traditional academic environment, the challenge is to determine what information in our Anatomy and Physiology course is clinically relevant. This professional development opportunity will allow me to function both as a student and a guest instructor in the Gross and Developmental Anatomy course at the University of Virginia School of Medicine, which is taught with an emphasis on clinically relevant anatomy. The experience will also prepare me for our future Anatomy and Physiology cadaver-based course.

**Actual Outcomes:**

There were many beneficial outcomes of this professional development opportunity, some that I predicted, and others I realized as the project progressed. One of the greatest benefits was the chance to become familiar with UVA's dissection manual and dissection procedures. I spent a lot of time familiarizing myself with these procedures before each lab because, from the beginning, it was clear that the medical students expected me to be able to answer questions as well as the more experienced anatomy faculty members.

The major difference between the anatomy lab in our new building at PVCC and the anatomy lab at UVA is that at PVCC we will be using prosections instead of having the students dissecting cadavers during lab sessions. A prosected cadaver is one that has been dissected by the instructors prior to the beginning of each term. As I studied the procedures and assisted students in their dissections of the cadavers, I quickly realized much work needs to be done to modify typical dissections if a cadaver is to be used as a prosection for study of various systems in an Anatomy and Physiology lab course. I began taking notes throughout the course on how to modify the dissections for prosection study. The challenge is to dissect out all various body systems so they can be viewed and explored, while still leaving them all intact.

Another valuable benefit of this project is that I have established a relationship with faculty at UVA who oversee fourth-year student cadaver dissection electives. These faculty members are willing to allow their students to assist in preparing PVCC's prosections to my specifications. A full-body dissection is very time consuming, and to have assistance will ensure that we have dissected cadavers when our building opens in the fall of 2010.

An unexpected beneficial outcome is learning a new way to use "clicker" questions. In the Gross Anatomy course they use clicker questions and first have students answer on their own. The distribution of answers is then shown to the class. Then they project onto the screen the same question, and ask

students to discuss their chosen answer with their dissection group members. This is a wonderful way to get students working in groups in large lecture sections such as the ones that I teach (72 or more students).

During my time attending lectures on developmental anatomy, I was able to determine the most important embryological content to integrate into my Anatomy and Physiology courses. This implementation will begin in the fall semester. Also, I was able to experience lectures given by leading physicians (radiologists, nephrologists, neonatologists) in their fields as to the relevant clinical anatomy that is seen regularly in a health care setting. My original goal was to incorporate this clinical anatomy beginning in the fall semester of 2010, but as I was learning this content I immediately began incorporating this information into my lectures during the fall semester of 2009. The most memorable lecture I attended was on congenital heart defect diagnosis, imaging, and repair. Students often tell me that learning clinical conditions that relate to the anatomy and physiology is beneficial to their retention of the course content.

**Other Colleges:** n/a

**Discussion and Critique:**

My professional development project was rewarding both for me and for my students at PVCC. I was able to learn clinically relevant anatomy at a major medical school and then immediately incorporate this information into my course content for Anatomy and Physiology. I have made solid relationships with the Anatomy faculty at the University of Virginia, which will be useful as PVCC moves forward in the opening of our new science building and anatomy dissection lab.

During this professional development project, I did not participate in the head and neck unit. This project was time consuming, so by not participating in this unit, I was able to keep up with my Anatomy and Physiology teaching at PVCC. In the future I would like to go back and complete the Head and Neck unit.

**Evaluation:**

Because of the nature of this professional development project as preparation for the future there are no evaluation data to show. This project was primarily undertaken in preparation for our new building, which will not be completed until 2010.

**Dissemination:**

My future plans are to share my dissection procedures and lab exercises using cadavers in Anatomy and Physiology with other faculty in the VCCS. This information will be best disseminated at the next VCCS Peer Group Conference.