Executive Summary of Most Significant Contributions to Teaching and Education

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Overall faculty roles: In one sentence, list your faculty roles (teaching, research, patient care, administration) and approximate time allocation to each (%).

I teach 6 courses with graduate and undergraduate students in human gross anatomy, 2 undergraduate neuroanatomy courses, and am the director of a 1yr BMS Masters program with 50 students. 85% Teaching, 10% Service, 5% Research

Changes in role(s) over time: In one sentence, describe any major changes in teaching roles over the past 2 or 3 years.

No major changes in teaching roles over the past 3 years

Important contributions to education: Identify educator role (domain) in parentheses and list contribution in a phrase. Describe what was done, how well it was done, and its impact in 3-7 sentences. Use only as many as are appropriate to your teaching (n = 2-5).

• To the degree possible, highlight activities that occurred during the time period under review.
• You will expand on each of these using the domain specific templates (Detailed Role Description).
• Especially early in their careers, few faculty will be active in more than 2 domains. However, you may have multiple examples in a domain.
• Note that (1a) Teaching and at least one additional Detailed Role Description (e.g. 2 Mentoring/Advising) are required.
• Your Executive Summary should NOT exceed 2 pages total.

First important contribution to education: Teaching
(TEACHING) Contribution: Case-based learning instituted in 6 graduate/undergraduate courses throughout Biomedical Sciences. We have developed innovative ways of introducing case-based learning in the classroom. We use a 4-step approach to teach students how to solve novel problems by applying any and all previously knowledge but emphasizing current content. In most coursework this 4-step process was introduced 4 years ago, and the presentation of this is continually refined over time. Its impact has been measured by student pre and post surveys, as well as overall student performance in the course. Students have reported that learning the 4-step approach is transferable in other courses on campus and has made a positive impact on their learning experience at this university. Early data suggests students who learn to use this approach perform better on class exams.

Second important contribution to education
(Director/Advisor of MSB Program) Contribution: Manage all aspects of student retention, advising, admissions, and budget for the 1-year master’s program in Biomedical Sciences. We have instituted a program to increase retention, specifically targeting minority and underrepresented students. We have also refined our admissions to be a more holistic process. We have successfully instituted a collaboration with Rocky Vista College of Osteopathic Medicine creating a pipeline for graduates of our program to enter directly into professional school. We continue to refine coursework and increase extracurricular opportunities to make advising more effective. The impact of all of these changes has increased retention in our graduate program and increased our diversity. Due to the success of the program, I was invited to review 3 other graduate programs over the last 3 years to provide outside consulting ensuring the success of those programs.

Third important contribution to education
(Director of Human Anatomy) Contribution: Manage program with 2 faculty, one instructor, a lab coordinator, 4 graduate teaching assistants, and over 50 teaching assistants annually as well as oversee all aspects of curriculum and facilities. Because of the increased interest and need to increase the size of the anatomy program to support university enrollment goals, we have successfully acquired funding for a new anatomy building on campus. This will allow us to add a second graduate dissection course increasing the overall anatomy program from 550 to 800 students annually. This has been a 6 year commitment. We have hired new faculty and staff members to help facilitate this growth. Additionally, we have started a groundbreaking virtual reality program that will integral to all of the new human anatomy curriculum in the new building. The impact of these new acquisitions is unknown as of yet, but the increased student interest is compelling.
### Fourth important contribution to education

(Anatomy Camp and K-12 Outreach Director): Oversee scheduling, curriculum, and staffing for outreach events reaching nearly 12,000 k-12 students including our on-campus high school anatomy camp. The current outreach program has grown exponentially to its current state. We have collaborations with the Fort Collins Museum of Discovery, Denver Museum of Nature and Science, and our outreach center in Todos Santos Mexico. The goal of this outreach program is to engage kids in science and health through hands-on anatomy exercises. We have created nearly 20 interactive and experiential learning stations providing a fun environment for kids to learn about health and their body. In addition, we created a summer camp for high school kids who are looking for a college-level academic summer experience. In this camp we challenge students by using cadaveric and case-based learning, while providing hands-on learning experiences. The impact of the outreach program has been profound. We are currently tracking student college choices and majors to measure interest in STEM.

### Fifth important contribution to education