Response to the Report of the Task Force on Graduate Education

Department of Integrative Physiology

The task force report concludes that restructuring is essential for the viability of our graduate program, a perception we share. Restructuring of our MS and PhD graduate programs began in the spring of 2009 as part of the creation of a new Department of Integrated Health Sciences (tentative name) which combines the departments of Integrative Physiology, Leisure Studies, and the Health Promotion track from the department of Health and Sport Studies with support from the Provost and the College of Liberal Arts and Sciences. This merger will unite a critical mass of graduate faculty with shared interests and expertise in human health, ranging from disease prevention and treatment via nutritional and behavioral modification at the whole population level to lab bench investigation of the mechanisms and treatments of disease at the cellular and molecular level. Importantly, similar units at peer institutions (e.g. University of Colorado) are thriving at both the graduate and undergraduate levels and, accordingly, we are on a path to accommodate 1000 undergraduate majors shortly; this growth provides the leverage needed within our college to hire additional tenure track faculty and thereby strengthen the breadth and depth of our graduate program. We plan to recruit faculty with demonstrated expertise in pharmacological, nutritional, or behavioral approaches to the prevention and treatment of modern, chronic diseases which adversely affect both national and international populations, e.g. obesity, diabetes, and neurodegenerative diseases. This will further strengthen the synergies to be achieved from uniting the existing expertise in the physiology of brain injury, aging, and cardiovascular disease from Integrative Physiology, the expertise in disease prevention from the Health Promotion track, and the expertise in therapeutic recreation from Leisure Studies.

Furthermore, we are exploring the feasibility and benefits of strengthening the existing links with the PhD program in Physical Therapy and Rehabilitation Science, as suggested in the report. The PhD programs in Integrative Physiology and Physical Therapy were previously run jointly until 1998 and we have maintained links since our separation (e.g., Drs. Cole and Darling have secondary appointments in Physical Therapy and Rehabilitation Science, and faculty members in both departments regularly serve on comprehensive examination and dissertation committees). The two programs are a natural fit given our common research interests related to the promotion of health through preventive and rehabilitative interventions and the physiology underlying the health benefits of these strategies. Importantly, Dr. Richard Shields, Director of Physical Therapy and Rehabilitation Science, has expressed interest in developing greater cooperation between the two programs. We have also discussed submitting joint grant proposals to fund training of graduate students specifically in these areas as well as developing shared graduate courses.

Joining several programs and building a new Integrated Health Sciences unit that integrates not only the undergraduate but also the graduate programs will require careful planning and cannot be achieved within a short period of time. However, we are confident that the unique opportunities provided by the newly formed unit, together with a more effective collaboration with the graduate program in Physical Therapy and Rehabilitation Science, will substantially strengthen our graduate program over the long-term.

In conclusion, the Department of Integrative Physiology has been proactively exploring restructuring our graduate program to more closely fulfill its mission of preparing academicians for positions in a broad range of departments in colleges and universities. In parallel, we are currently restructuring the undergraduate program to offer new BS and BA degrees in Integrated Health Sciences that we are confident will attract large numbers of undergraduate students and permit us to expand our graduate faculty over the next five years. This will enable growth of the graduate faculty in exciting new areas focusing on translational research related to major diseases, which we believe will attract funding to support innovative research approaches for treatment of such diseases.