



Special Program and Abstract Issue

Physiology Is Alive and Well. Just Ask an Undergraduate Student

Erica A. Wehrwein



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When you think of a cutting-edge, exciting area of science, do you think of physiology? If not, you should. Physiology is the basis for medicine. Many important medical advances that we take for granted today are direct or indirect results of research conducted by physiologists. But despite the significance of our area of research, some universities are removing physiology from medical school curricula, shutting down physiology departments, or calling them by another name.

Not surprisingly, this causes a great deal of angst among physiologists and is often discussed in our community.

Luckily, physiology is flourishing at the undergraduate level. Despite a smorgasbord of options for college majors in life science disciplines – including bachelor of science degrees in genetics, biochemistry, cell and molecular biology, integrative biology, etc. – more universities have started to offer physiology as a stand-alone undergraduate major instead of offering only a course on physiology. Although the major has existed in a few isolated cases for many years (e.g., University of Arizona and Michigan State University), the past decade has seen many new programs added and the conversion of several programs from kinesiology to human physiology, with 43 programs in the U.S. today. These programs typically have seen three- to fivefold increases in enrollment over the past five years.

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FASEB – In Transition

FASEB is in transition. The FASEB Board began a process of introspection in December 2015 to decide its future. In June 2016, the Board created task forces focusing on governance, membership, campus, and dues. Input to the various task forces is being provided by our FASEB Board representative Hannah Carey as well as a number of other APS members and leaders. Guy Fogleman, the FASEB Executive Director, announced his plans to retire in early 2016 and left FASEB in mid-August. The Board has hired an interim Executive Director who has been charged with evaluating FASEB's programs and activities and to make recommendations on how FASEB should proceed as an organization. Once the interim Executive Director's report is completed and the Task Force Reports are submitted, FASEB will be ready to advertise for and hire a new Executive Director.

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Physiology Is Alive and Well. Just Ask an Undergraduate Student



Undergraduate poster session at EB 2016

Recently, we published a paper on the millennial student view of physiology. We found that:

- 78% of physiology majors have preferences for studying whole-body physiology (with 67% interested in integrative/systems physiology and 11% interested in integrative and cellular physiology);
- Students interested in cell- and molecule-level function are gravitating to other majors such as biochemistry and genetics
- Student interest in integrative physiology is aligned with interest in an applied and holistic view of human health and disease and student aspirations for careers in health care
- Physiology programs are the primary pathway for students heading into medicine, physical therapy and other allied health professions, with 85% to

90% of students in a physiology major stating career aspirations in health care.

Considering these findings, one thing seems clear: millennial undergraduate students intuitively understand that physiology is the basis for medicine. They know that choosing a major in physiology is the best way to learn more about the human body. In my opinion, physiology is alive and well; you just have to know where to look. ●

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This article is reprinted from the I Spy Physiology blog. The blog is geared toward the general public and aims to explain physiology in everyday life. Interested in contributing? Contact communications@the-aps.org.