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 fivelfold increases in enrollment over the past five years.
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.