

Those of us who have taught biology for many years have probably had many opportunities to discuss possible college majors with our students, especially biology. There are many good reasons why biology is a very popular major on most campuses. I think it is worth revisiting why this is so.

The field of biological sciences is absolutely fascinating. Biology easily connects to our everyday lives through the environment, our bodily functions, and our food supply. To me, that makes it one of the easiest subjects to teach, especially if you engage your students in true and active inquiry. There is a lot about biology that we do know: facts, concepts, theories, principles, and unifying themes such as evolution. All of that is interesting enough, but what generates even more interest among students is what we do not yet know. This begs exploration. In some of the hot new subfields such as prions and epigenes, we currently know very little. For example, there appears to be evidence of prions that are associated with disease (see Zaitsev article in November–December 2009 *ABT*) and epigenes that appear to

surround our DNA (see Stein article in April 2012 *ABT*). But why are these particles there, of what are they composed, what do they do, and what are their mechanisms? I suspect these questions will tickle the imagination of almost anyone taking a biology course. The really difficult aspect that impedes research is that both prions and epigenes are so tiny, but that just adds to the curiosity factor. There are sure to be more new and exciting areas of biology in the future that beg investigation.

One benefit of majoring in biology is that it opens doors into all the health professions more than any other major. Such careers would include the traditional professions of medicine (with many specialty areas), dentistry, nursing, optometry, forensics, pharmacy, veterinary science, agriculture, aquaculture, and ranching. Biology is also solid basic education for more content-oriented careers in ecology, forestry, bioengineering, forensics, genetics, neuroscience, epidemiology, physiology, agronomy, vertebrate and invertebrate zoology, botany, parasitology, aquatic biology, molecular biology,

biotechnology, and many, many other areas, all of which can lead to careers in research and teaching in academia. Of course, we cannot forget the very important career of K–12 teacher of biology, for which essentially a major in biology and teacher certification is a universal requirement in this country. It is interesting to note that a full master's degree in biology is required to teach high school in countries such as Germany.

Another very important reason to major in biology is that it is extremely flexible and will allow a smooth transition to many other careers. Some examples are psychology, pharmaceutical sales or service, geology, meteorology, environmental or medical law, criminology, energy alternatives, retail or wholesale work in biologically related businesses, and many others.

So, being a biology major is very interesting, very marketable today, and also very flexible. I hope you are able to share some of these ideas with your students.

DOI: 10.1525/abt.2012.74.6.3