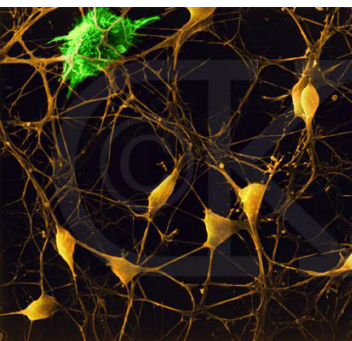




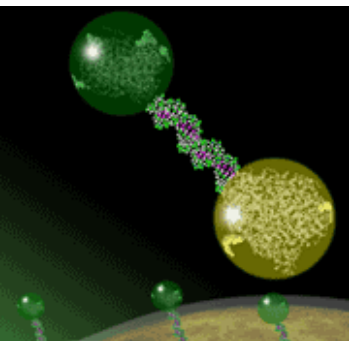
Biophysicist

*By Josh Thompson
Secondary Board Representative*

Although you may not have heard of the relatively new field of science called Biophysics, it has already done much to influence your life. Biophysics applies the principles of physics to biology, using physical sciences to better understand the structure and function of living cells and organisms. Principles of physics that few would connect with the fields of biology and medicine are the specialty of the biophysicist, and their work can encompass things that few would include under a single career field. For example, every thought that you have and every sensation you feel involves the creation of electrical impulses sent through your brain and nervous system. A biophysicist explores how and why this happens and what effects it creates. They get to research some of the smallest organic molecules through x-rays and electron microscopes and apply properties of physics, including quantum mechanics, to cells, tissues, organs, and entire body systems.



If you are wondering how practical this work is, consider this: on the cellular level, biophysicists investigate how molecular particles are changed within cells and how forces such as radiation and x-rays affect cells. Biophysics has also given us a better understanding of the physical forces and stresses applied to our bodies. Just how much stress is applied to our bones and muscles as we go through our daily routines?



The educational requirements to become a biophysicist are varied and largely depend on your interests. If you are an interested high school student, start planning now to take plenty of biology, chemistry, mathematics, and physics courses. After high school, you have to obtain a bachelor's degree, preferably in one of the majors listed above. If you are interested in applied research, in which you would work towards solving a known problem or developing new products, then a master's degree is your next step before entering the career field. For those of you who are really ambitious and want to conduct your own research or seek an administrative position, you can look forward to obtaining a Ph.D.

Biophysics is an up-and-coming field of science that is projected to grow in the coming years. If you think you have what it takes to become a biophysicist, try to find a laboratory in your area and get to work as an intern!

