

National Biomechanics Day: Creating The Breakthrough Science of the 21st Century

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Biomechanics today is the great but unknown science. Despite the existence of the International Society of Biomechanics, the American Society, the European Society, the Brazilian Society and other such organizations, we have yet to break into the mainstream of consciousness. While most people have a concept of chemistry or physics or geology, or math, few lay people can express a knowledge or awareness of biomechanics. How very unfortunate this is because biomechanics has so much to contribute to human society through its very nature, the combination of biology and physics. **Biomechanics science investigates the broad expanse of biology in the physical world and it makes substantial contributions to medicine and health, basic biology, human and animal movement and performance, and many other fields.** For these reasons, National Biomechanics Day seeks to expand the influence and impact of Biomechanics on society and we will achieve this goal by teaching Biomechanics to high school students, a population largely naïve to our science. We envision a time when high school students can choose a Biomechanics course as easily as a math course. When Biomechanics advances by stepping backward from a university-initiated to a high school-initiated discipline, more people will receive training in biomechanics, more people will enter university with a knowledge of biomechanics, and more people will ultimately choose to do biomechanics in any of its many manifestations as a career endeavor. **Through NBD we can make Biomechanics the, “breakthrough science of the 21st century.”** This is possible due the extensive and growing interest in STEM education and the fact that Biomechanics is all things STEM: it is science, it is technology, it is engineering, and it is mathematics. Further, NBD is also dedicated to increasing diversity, equity, and inclusiveness (DE&I) in Biomechanics. NBDs from 2016-2018 had more females than males, and high proportions of African-American and Hispanic/Latino populations. This presentation will describe the history and worldwide growth of NBD, a singular platform upon which all Biomechanists can unite into a synchronized, worldwide celebration of Biomechanics.