

EDITORIAL

Embracing Our Duty

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Early in the sequencing of the human genome, I attended the presentation of an update on the status of the sequencing efforts. As we stared in awe at a long poster of a single chromosome, with all of the then-known markers and genes demarcated in a manner that would be incomprehensible to the untrained eye, a member of the audience commented that only a geneticist could appreciate how far we had come and the excitement that waited ahead.

The excitement that comes with scientific discovery is contagious if people possess the basic knowledge to see the significance and impact of the work. An important duty of scientists is to enable others, not specially trained in a field, to share the excitement and enthusiasm of research as well as the downstream benefits (e.g., improved clinical tools). The declaration of April 25th as DNA Day provides geneticists with an opportunity to spread the excitement of genetics by discussing the significance of genetics research, from the recognition of DNA as the genetic material, to the elucidation of the structure of DNA, to the sequencing of the human genome, and all of the achievements in between. As geneticists, we can talk about future applications of genetics research, both good and bad—including improved health, a cleaner environment, the threat of bioterrorism, the discovery of new species, the reclassification of known species, and an understanding of extinct species—with students, with the general public, and with our civic leaders and elected officials.

By visiting a classroom, we geneticists can take what might seem to some like a dry and boring classroom unit on heredity and breathe life into it, allowing students to realize the significance of what they're learning and how it applies to their daily lives. Often, the connection between coursework and reality is not apparent, and students are left to wonder what the point of learning a particular subject might be. At one time or another, I

think we've all thought something like, "I'm not going to need this in the real world, so why bother learning it?" However, by talking with students, we can clarify how genetics is relevant to the real world. Our words and passion may spur a student's interest in genetics or another science, introduce a host of careers that a student may not be familiar with, and dispel myths and stereotypes about what scientists do. In a class, a student asked me if what happened to Spider-Man could happen to him—not exactly a question I had anticipated, but at least I knew I had encouraged his thinking about genetics and even the idea of gene "therapy" in this case.

The calendar is full of days, weeks, and months dedicated to raising awareness of many good causes. If ever there was a time to begin raising awareness about genetics, that time is now. One of the missions of the American Society of Human Genetics (ASHG) is "to encourage discourse on applications of human genetics to society at large." The Society has long recognized the importance of education, and, in recent years, ASHG has significantly increased its commitment to improving genetics education. The development of the national Mentor Network, the creation of a permanent staff position devoted to genetics education, and outreach to professional educational organizations, such as the National Science Teachers Association and the National Association of Biology Teachers, are evidence of the Society's recognition of the importance of genetics education today.

It is our duty as members, scientists, and responsible citizens of the world to pass along our knowledge of a field that has captured our imaginations and those of many around us. Therefore, I encourage each of you to go out and spread the word about genetics this April. Go back to your alma mater, attend a church group or community center meeting, or visit a local middle or high school. The time we devote now to educating our youth and the public will pay huge dividends in the future.

Additional Information: If you wish to participate in the Mentor Network, please sign up at <http://www.ashg.org/genetics/ashg/educ/003.shtml>. Further information about DNA Day can be found at <http://www.genome.gov/10506367>.

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