

### Outreach to Teach: The ASHG Mentor Network

In commemoration of the completion and publication of the sequence of the human genome in 2003, the National Human Genome Research Institute, the American Society of Human Genetics (ASHG), the Genetic Alliance, and the National Association of Genetic Counselors worked together to initiate National DNA Day. Now an annual event occurring on April 25th, the anniversary of the discovery and publication of the DNA double helix, National DNA Day has become a vehicle for K–12 genetics education outreach.

For its part, ASHG contributed to the initial outreach endeavor by forming the Mentor Network. ASHG members interested in working with their local K–12 classrooms volunteer for the Network, giving permission for their contact information to be accessed by teachers at the ASHG Web site. The Mentor Network was advertised in DNA Day materials, and teachers were encouraged to contact a mentor in their area. The Mentor Network is a unique resource and consists of just over 1,400 active ASHG members, with >200 international participants. In addition, 2005 marked the first year that all 50 states and Puerto Rico had at least one mentor available.

Although the Mentor Network was initially offered in conjunction with National DNA Day in 2003, it has become a resource available to K–12 teachers throughout the year. A 2005 survey of mentors revealed that approximately half of all outreach efforts occurred outside the context of DNA Day. This survey of mentors also revealed underutilization of the Mentor Network by teachers. A major goal of the new Director of Education for ASHG is to increase awareness of ASHG's efforts through contact with the National Science Teachers Association, the National Association of Biology Teachers, and state science coordinators. If you are interested in performing outreach in your district, please contact Kenna Shaw (kshaw@ashg.org) for assistance.

To assist our mentors as well as teachers, ASHG is developing the Genetics Education Clearinghouse (GEC). The GEC is a free, open-access resource for anyone interested in determining specific state science standards that cover topics in genetics. These topics include classification, biodiversity, central dogma, evolution, gene regulation, and heredity. Three iterations of the GEC will be made available during 2006. The first, made available in January (at <http://www.GenEdNet.org>), is

the backbone of the database. All of the science standards that deal with genetics for the United States and Canada are searchable by state (or province) and grade level. This resource allows, for example, a mentor in Wyoming to identify possible topics for a third-grade class, or a colleague in Florida to teach topics appropriate to a ninth-grade biology class. The database will expand in its second iteration with the addition of links to suggested Web sites that can be used to review material, locate educational graphics, and find other material potentially useful for teaching information related to specific science standards. The third iteration of the GEC will become publicly available in early April, in time for DNA Day. This version augments previous versions by linking specific standards with potential lesson plans or ideas on interactive methods for presenting the material to students. The database will be continually updated with additional Web site links, revised science standards, and more activity ideas, and we welcome suggestions from any member of the Mentor Network on ways to improve these resources.

A concern voiced by mentors in the past was their lack of preparedness for addressing K–12 students. Whereas many mentors have experience in teaching at the undergraduate level, they realize that pedagogical techniques are vastly different for the preuniversity audience. The annual meeting has traditionally been a successful outlet for ASHG's educational outreach efforts. Specifically, we sponsor an annual educational event for local high school teachers and students. We hope to supplement these efforts at future ASHG annual meetings with workshops designed specifically for members of the Mentor Network. Additionally, ASHG is collaborating with the National Science Resources Center at the Smithsonian Institution to secure funding for a program designed to train mentors in K–12 pedagogy.

Becoming a member of the Mentor Network is simple. Just visit ASHG's Educational Resources Web site (<http://www.GenEdNet.org>), click on "Mentor Network: Outreach to Teach," and then select "To become a mentor" in the "For Mentors" section. After filling out your contact information, you will be added immediately to our publicly available list of mentors willing to visit schools in your area.

KENNA M. SHAW  
Director of Education  
American Society of Human Genetics