

JUNE 24, 2003

## Meet Some of the Grantees

**In Mississippi Success Comes in Pairs** What happens when high school students and teachers partner with scientists at a medical school? In Jackson, Mississippi, they produce a year-long biomedical sciences research course that has been adopted by schools statewide. One hundred percent of the students graduate from high school, and 59 percent go on to study science in college. In fact, four students who went through the University of Mississippi School of Medicines HHMI-supported Base Pair program now are medical students there themselves.

With a \$538,307 grant from HHMI, the University of Mississippi School of Medicine will expand the successful science partnership. A novel and more broad-based high school research curriculum will be developed; teachers will be prepared to teach research-based high school science; and a student-led Community Science Forum will enable participants to share what they are learning with their parents and the community.

The project is a collaborative effort of the School of Medicine and the Jackson Public School District, the largest school district in Mississippi. It is designed to cultivate awareness among Mississippi high school students of careers in the biomedical sciences, to help teachers become better science educators, and to create forums for increasing public science literacy.

**Breathe In, Breathe Out, Breathe Science** Lungs and breathing are what the Lovelace Respiratory Research Institute is all about, so lungs are what Lovelace scientists are going to use to make science more meaningful to Albuquerque public school students.

A \$536,162 grant from HHMI will enable the institute to establish the Lovelace Science Academy. Research scientists will work collaboratively with the Albuquerque Public Schools and the New Mexico Mathematics, Engineering and Science Achievement Inc. (MESA), part of a national program of educational enrichment for school children from historically underrepresented groups.

Middle school students from two disadvantaged, predominantly Hispanic schools will learn about lung function and structure, respiratory infections, the effects of smoking, and air pollution. Math and technology skills will be built into each science activity.

The Science Academy will kick off during the summer, at a science camp for sixth, seventh and eighth graders. After-school science activities will continue throughout the school year. Once students complete the academy, they can continue in MESA throughout the rest of their middle and high school years. MESA provides tutoring, field trips, community service and math/science competitions.

The Lovelace Academy plans to involve parents with activities that include a summer camp awards ceremony and barbecue, a student science symposium in the fall, and a program awards ceremony at the end of the school year.

**Inner-City Middle School Students Become High Achievers in Science** A decade ago, the James P. Timilty Middle School was one of the lowest-achieving public schools in Boston. Now, standardized test scores are climbing, and the school in the economically disadvantaged neighborhood of Roxbury has become the most frequently selected middle school in Boston's choice-driven school assignment system.

Science Connection, a partnership between Timilty and Massachusetts General Hospital (MGH), has played a key role in the turnaround. Supported by grants from the Howard Hughes Medical Institute (HHMI), Science Connection established a model school science fair, with science-project mentoring by MGH scientists. The program also sponsored popular family science nights and professional development for teachers to help them do a better job of using hands-on, inquiry-based teaching to make classroom science more compelling for middle schoolers.

A new HHMI grant of \$446,328 will enable the partnership to pair scientists with teachers and help Timilty science teachers become peer mentors for colleagues and future science teachers. The grant also will continue and expand successful elements of the program such as science fair mentoring and family science nights. Science Connection expects to reach nearly 900 students and another 1,000 parents and siblings during the four-year grant.