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DNA Bus Rolls Into Gulf Coast

Michael D. O'Neill 10.18.06 | 2:00 AM



Drewcilla Steib (left) and Sarah Lewis conduct an experiment on the DNA bus.

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NEW ORLEANS -- J. Craig Venter, the maverick scientist who spearheaded the private effort to decode the human genome, is helping to jump-start science education in the Gulf Coast. Last week, his brightly colored bus housing a mobile DNA laboratory visited schools hit hard by Hurricane Katrina.

Students without the most basic lab equipment post-Katrina got the chance to experiment with the latest bioscience has to offer as part of Venter's [Discover Genomics](#) program.

"I never thought I could be a doctor," said Sarah Lewis, an eighth-grader at [LaPlace Elementary School](#), "but now I think I can."

Sarah and 21 schoolmates, who bussed 25 miles into New Orleans from Laplace, Louisiana, had just participated in a two-hour "Mystery of the Crooked Cell" module. It taught them how DNA analysis can distinguish between hereditary sickle cell disease, viral disease and normal cells. Sarah clutched a squishy foam model of a normal red blood cell.

The DNA bus accommodates up to 30 students, their teachers and two mobile laboratory instructors. Workstations are equipped with centrifuges, pipettes, electrophoresis supplies and temperature and pH probes. The mobile lab is self-sufficient, with a water supply, electricity and internet capability.

The [J. Craig Venter Institute](#), a nonprofit organization focusing on genomics research, launched the bus

program in January in the Washington, D.C., metropolitan area, where the bus has taught thousands of teachers and students about the life sciences and how to use sophisticated laboratory equipment.

Kenna Shaw, education director for The American Society of Human Genetics, or ASHG, had heard about the bus' success, and worked with the Venter Institute to bring the mobile lab to the New Orleans area during the ASHG's annual meeting, held in the city last week. The ASHG also donated \$30,000 to the New Orleans school board for science books and equipment.

"The Discover Genomics lab on wheels provided Louisiana students from Katrina-impacted areas an incredible, engaging lab in DNA electrophoresis that they would not have experienced otherwise due to loss of equipment and supplies," said Ann Wilson, the Louisiana Department of Education program coordinator for science and health, who watched seventh- and eighth-graders get giddy over DNA electrophoresis.

"While our students worked," said Tangela King, assistant principal at LaPlace Elementary, "I could not help but envision future scientists, researchers and medical doctors who were being inspired at an early age. These are the type of hands-on experiences that instill curiosity, motivation and academic success."

Terrence Simmons, an eighth-grader, said, "This experience has really encouraged me to become a doctor or a scientist."

"The instructor on the bus was very informative," said fellow eighth-grader Jennifer Ilski. "It really opened my eyes to what goes on in the medical field."

After two fast-paced, education-filled days with eager students, mobile lab driver/DNA instructor Darryl Bronson fired up the engine and pointed the bus toward Holy Cross School for one last lesson.

By the end of the trip he and the other instructors, Jen Colvin and Crystal Snowden, had instructed 150 New Orleans students -- perhaps inspiring the inventor of the future technology that will [decode 100 human genomes](#) in 10 days.