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Teen Draws on Health Issues for Essay Prize

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In second grade, the dyslexia that Alexander Long had been trying to compensate for was discovered.

Then, in third grade, doctors found a tangle of abnormal arteries and veins in Alexander's right cerebellum. It took 10 hours of surgery to remove it. He had to learn how to walk, eat and write all over again.

When Alexander was in seventh grade, juvenile rheumatoid arthritis was diagnosed. His immune system was destroying his healthy cells, doctors said.

The conditions have sidelined the 16-year-old from sports and some other activities, but they've spawned the scientist in him.

Yesterday, Alexander won third place in a national essay contest on the importance of knowing about DNA and genetics.

The announcement came on national DNA Day, which commemorates the completion of the Human Genome Project in April 2003 and the discovery of DNA's double helix in 1953.

The essay contest drew 1,228 entries and was sponsored by the **American Society of Human Genetics**, the Genetics Society of America and Applied Biosystems.

For Alexander, a junior at Worthington Kilbourne High School, the interest in DNA is personal.

He has long been interested in his own health problems, but he also has followed the issue of genetic studies because his father, Fred Long, has Parkinson's disease.

Alexander has traveled with his family, which also includes mom Antonia Mulvihill and younger brother, Aaron, to Washington to hear legislators discuss stem-cell research.

"I want a better, easier life for my children," he wrote in the essay. "I hope they will have far fewer health and genetic issues than I have."

Though winners were announced yesterday, Alexander was contacted Sunday evening via an e-mail, asking him to call.

Ms. Mulvihill rushed home from errands when her son called. Then Alexander went out on the porch, locking Flash, the dog, in the house so he wouldn't interrupt.

Alexander danced a jig when he learned he was a winner.

"I thought it was cool stuff," he said.

The award is worth \$100, which will go toward a school trip to Europe this summer.

Alexander reads the magazines *Scientific American* and *Science*, works by Isaac Asimov and he watches the Discovery Channel. He collects sharks' teeth, fossils and insects. At least every other day, he scans his favorite science sites on the Internet.

But his medical conditions have taken a toll. So far this school year, he has missed 31 days and wakes daily with the swelling and pain that come with arthritis.

He likes to bowl with friends, but one game is usually the limit for his joints.

"It's heart-wrenching," his mother said. "We've never had to go through any struggles like this. He's a healthy kid. I hold out great hope; so much can be done with research."

Sometimes children outgrow juvenile arthritis, sometimes they don't. Alexander believes that if he'd been born a half-century later, medical science likely would have been able to prevent or cure his conditions. Now, he hopes the cures come in time for his children.

"I think about it a lot," Alexander said. "I'm confident something positive will happen."