

Biostatistics intern reaches national semifinals for science competition

By Ian Thomas

NIEHS summer intern Mitas Ray was recognized in December 2013 as one of 300 semifinalists for the prestigious Intel Science Talent Search (Intel STS) competition. A senior at Enloe High School in Raleigh, N.C., Ray was selected from a pool of 1,794 entrants, representing 489 high schools in 45 states and the District of Columbia, as well as seven overseas schools.

"As early career milestones go, this was a huge honor," said Ray, who got the news of his nomination via text while in class. "I have to give a lot of the credit to my mentors at NIEHS. They were always there for guidance and support, but, in the end, they gave me the space I needed to really run with this project and make it my own."

Intel STS is among the nation's most distinguished precollege science competitions, boasting an impressive list of alumni, many holding some of the world's most coveted scientific awards, including the Nobel Prize and National Medal of Science.

All about the numbers

Ray spent the majority of his summer working in the [NIEHS Biostatistics Branch](#), tasked with exploring statistical issues of relevance to environmental health. There, under the tutelage of [Keith Shockley, Ph.D.](#) and [Grace Kissling, Ph.D.](#), Ray delved heavily into the realms of computer science and chemical testing, while developing his award-winning research.

"A lot of the processes by which we test chemicals today are extremely limited, because of their high cost and low throughput," said Ray. "The goal of this project was to design a new method using computer science and cell-based assays that would allow us to test a wide range of chemicals at once and in a fraction of the time."

"Working with Mitas was a wonderful experience," said Keith Shockley, Ph.D., one of Ray's mentors at NIEHS. "He's a really energetic and self-motivated person, and if his time with us is any indication, he's got a bright future ahead of him in science."

Looking forward

In addition to his semifinalist nomination, Ray also earned a \$1,000 cash prize for his work - a prize that Intel STS matched, dollar for dollar, and presented to Enloe for its commitment to educational excellence in science, math, and engineering.

"I think the greatest thing about an honor like Intel STS is that it pushes you to work even harder than you already do," said Ray. "That's an admirable thing in any field, much less one like computer science, where things are always changing."

Intel STS is a program of the Society for Science and the Public, a nonprofit membership organization dedicated to public engagement in scientific research and education.

(Ian Thomas is a public affairs specialist with the NIEHS Office of Communications and Public Liaison, and a regular contributor to the Environmental Factor.)



Ray hopes to study computer science at the University of California, Berkeley; the Massachusetts Institute of Technology; or Carnegie Mellon University. (Photo courtesy of Steve McCaw)



Ray, left, and Shockley discuss the finer points of Ray's project. (Photo courtesy of Steve McCaw)

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