

Davidson Fellow
Siddhartha Jena

\$25,000 Scholarship Recipient



Personal Info

Age: 17

Bloomfield Hills, Michigan

School, College and Career Plans

Siddhartha is a rising senior at the International Academy in Bloomfield Hills. He is currently applying to colleges and plans to study biology and chemistry.

Davidson Fellows Submission: Science

In his project, "Erythrocyte Dysfunction and Amelioration in Hypercholesterolemic Conditions," Siddhartha demonstrated that the immediate effect of elevated cholesterol is dysfunction of active water, oxygen, and carbon dioxide transport by the red blood cells. Using a spectrofluorometer and Zeta Sizer, he showed that exposure of red blood cells to two compounds: ONO-RS-082 and glyburide, results in an amelioration of cholesterol's detrimental effects. Results from his work broaden the understanding of one of the most significant health risks facing our society, and the possible mechanism for its future treatment and management.

Biography

Throughout his education, Siddhartha has made a point to take the most challenging courses available. In addition to enjoying challenging and thought-provoking courses in history and English through the International Baccalaureate program, he has made a point to further his basic understanding of science by taking every science course available in his school.

Siddhartha has always been fascinated by how nature works. He constantly strives to explore without limitations, to satisfy his curiosity about the world around him, and to help put together, piece by piece, the cosmic puzzle of the world we inhabit and our knowledge of science.

When he's not busy indulging his passion for science and scientific research, Siddhartha enjoys community service as well as music, having played the saxophone for eight years and the piano for 13 years. He also enjoys tennis and reading. Siddhartha is an active competitor in his school's Model United Nations and Science Olympiad teams.

Please see next page.



Davidson Fellow
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(cont.)

- 2011 Davidson Fellow
- 2011 Research Science Institute Scholar, MIT
- 2011 Intel Science & Engineering Fair, Medicine & Health Sciences Fourth Place
- 2011 Society for In Vitro Biology Research Award
- 2011 Metropolitan Detroit Science & Engineering Fair Grand Prize Award
- 2011 Michigan Armenian Genocide Essay Contest Honorable Mention
- 2010 Intel Science & Engineering Fair, Medicine & Health Sciences First Place
- 2010 Minor Planet Named in Honor, Lincoln Laboratory, MIT, Boston, MA [26665 Sidjena]
- 2010 Society for In Vitro Biology Research Award
- 2010 Metropolitan Detroit Science & Engineering Fair Grand Prize Award
- 2010 Sanofi-Aventis BioGENEius Challenge State Finalist
- 2010 Model UN Canadian American Security Council Highest Honors: Outstanding Delegate
- 2010 Michigan Math Prize Competition Finalist
- 2010 Michigan Science Olympiad First Prize medalist and State competitor
- 2009 American Meteorological Association Research Award
- 2009 Air Force Research Award
- 2009 Metropolitan Detroit Science & Engineering Fair First Prize Award
- 2008, 2007 Spelling Bee Championship: Michigan Top 12 Competitors

Community Activities

In addition to having served on his school's Student Council for the past two years, Siddhartha serves as Advocacy Chairman for his area's Relay for Life event, where he helps to educate members about ACS, recruit new members, attend committee meetings, share ideas, present talks, and organize and participate in events. He is also a peer tutor in science and math.