

Arushi deFonseka

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- Education** **Massachusetts Institute of Technology** **Cambridge, MA**
Candidate for B.S. in Chemical Engineering and Biology, in June 2004
- Experience** **Role of Selected Kinases in IL-2 Stimulated CD4 T Cells** **Cambridge, MA**
Researched under Dr. Van Parijs, a biology professor at MIT, the contribution of different molecules involved in the IL-2 signal transduction pathway to promoting survival and proliferation in IL-2 stimulated CD4 T cells by measuring changes in survival and proliferation when cells were treated with drugs inhibitors of these molecules. (2003-2004)
- Volunteering at Beth Israel Hospital** **Boston, MA**
Volunteer sitter for epilepsy patients. (2002-2004)
- Tutor for the Office of Minority Education's TSR** **Cambridge, MA**
Tutored undergraduates in Physics, Genetics, Thermodynamics, and Organic Chemistry. (2002-2004)
- Intern at Cephalon** **West Chester, PA**
Worked in the legal department on patent applications and cases. Researched previous cases to assist in the responses for office actions. (2002)
- Halo Project at the A.I. duPont Hospital for Children** **Wilmington, DE**
Worked in the Robotics Lab under Dr. Rahman and Dr. Mackenzie on improving the design of the halo, a device used to immobilize the head during spinal surgery. Used Ansys (program in finite element analysis) to model different halo designs and determine which would be most effective. (2001)
- DNA Arrays for Natural Compound Analysis** **Cambridge, MA**
Researched under faculty advisor Dr. Cho-Kyun Rha, a professor of Biomaterials Science and Engineering at MIT, differential human gene expression resulting from the addition of *Centella asiatica* to a tissue culture system, revealing potential mechanisms of action of a drug. Amplified Human genomic library and developed microarrays for gene expression analysis. (2001)
- Leadership** **President of MIT's SriLankan Students' Association** **Cambridge, MA**
Organized events and study breaks to increase cultural awareness on campus and to increase the role of the association as a support group for SriLankan students. (2002)
- AICHE 2004 Class Officer** **Cambridge, MA**
Organized the IAP Car Competition, study breaks, student/faculty mixers
- Chair of Finance of the MIT Hippocratic Society (2001-2002); Vice Chair (2000-2001)**
Devised budget for the annual conference (on topics related to medicine) held in March and collaborated with Harvard finance committee to raise the \$40,000 needed by actively seeking sponsorship from over a hundred biotech companies, medical schools, and publications.
- Activities** Tau Beta Pi Honor Society, Tennis, Kappa Alpha Theta, Associate Advisor for MIT freshmen