

## CWSF 2007 - Truro, Nova Scotia



### Sathya Baskaran

#### Finding the Fit for Your Knee

**Division:** Biotechnology

**Category:** Junior

**Region:** Ottawa

**City:** Ottawa, ON

**School:** Turnbull School

**Abstract:** Canadians undergo surgeries for Anterior Cruciate Ligament (ACL) replacement. ACL is replaced by operating the hamstring or patellar and has many disadvantages. In medical field, there is lack of knowledge in using synthetic material for ACL replacement. My project investigated suitability of synthetic materials. Tension and fatigue experiments were simulated for ACL movements using my designed apparatus. I found Gore-Tex is the best synthetic material.

#### Biography

Science has been my passion for a long time and it is something I enjoy from the time I was small. I have always been interested in how the world and I have always found the answer through science. My science project: Finding the Fit for Your Knee: A New Study for ACL Replacement with Synthetic Materials explores the two fields I want to go into when I grow up engineering and doctor. For extra curricular activities I have made my school basketball, soccer, badminton, and volleyball team. I play badminton and volley ball on a competitive level. I am also part of my service activates in which I make sandwiches to be distributes to the needy and help the homeless.

#### Awards

#### Value

The University of Western Ontario Scholarship Gold Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Gold Medal - Biotechnology & Pharmaceutical Sciences - Junior Sponsor: Rx&D Health Research Foundation	\$1 500
Total	\$3 500

