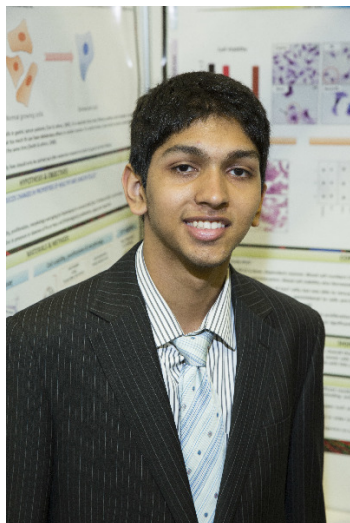


# CWSF 2014 - Windsor, Ontario



## Abhishek Chakraborty

### Effects of Folic Acid on Cells

**Challenge:** Health

**Category:** Intermediate

**Region:** Montreal

**City:** Montreal, QC

**School:** Académie Royal West

**Abstract:** Blood (RBCs & WBCs), Cos-7 (Kidney Fibroblast) and HeLa (Human Cervical Cancer) cells were treated with folic acid (FA) concentrations and assayed for cellular properties. FA was shown to have largely detrimental impacts on the blood and Cos-7 cells, but surprisingly positive impacts on cancer cells; confirming FA as a cell-specific drug. The use of co-factor Zinc (Zn) suppressed these negative factors of FA prominently.

#### Biography

I'm a grade 10/Secondary 4 student attending Royal West Academy located in Montreal-West, Quebec. Some of my hobbies are programming, playing badminton and experimenting. I also have an interest in movie making. I developed the objectives of my project after I found the word "Folate" (the naturally occurring form of Folic Acid) on the nutritional label of a Froot Loops cereal carton. After researching into the new finding, I became very interested in the topic and decided to carry out further investigations on the matter myself. I found my mentor, Dr. Ashim Bagchi, and discussed my research idea with him and he was very grateful and guided me in pursuing my research. In the future I wish to continue forward with this research topic and explore more of the endless possibilities. I'm still debating my future career choice, but I'm sure it will be related to the field of science and technology.

#### Awards

#### Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$4 700