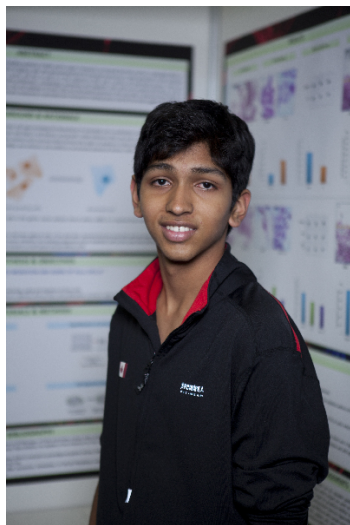


# CWSF 2013 - Lethbridge, Alberta



## Abhishek Chakraborty

### Effects of Folic Acid on Senescence and Migration of HeLa Cells

**Challenge:** Health

**Category:** Intermediate

**Region:** Manitoba Schools Science Symposium

**City:** Winnipeg, MB

**School:** Acadia School

**Abstract:** Biological functions of Folic Acid (FA) have been demonstrated in many cells. HeLa cells were exposed to 100 mg of FA in presence/ absence of co-factor zinc. FA increased cell proliferation, size and migration of these cells but decreased their senescence. Zinc was able to attenuate these effects significantly. This study suggests that too much FA may lead to unwanted effects in cancer cells.

#### Biography

I'm currently a grade 9 student attending Acadia Junior High School in Winnipeg, Manitoba. My interest in the topic of Folic Acid (FA) began three years back when I discovered Folate (the naturally occurring form of FA) on the nutrition label of a Froot Loops cereal carton. I researched further into the matter and came across several intriguing facts. I discussed these findings with my mentor, Dr. Ashim Bagchi, and he being in the field of cardiac research himself, became quite interested in the topic. Gratefully he helped me find lab space and also provided me valuable guidance and suggestions and this began my long course of research in the field of FA. There are many beneficial factors of FA and it has many sorts of applications, although my research indicates that it also has several negative affects that are being ignored. At a time when the public FA consumption is at an intensive high, these negative effects cannot be ignored and I hope to share my findings with the public. Therefore I began participating in various, state-wide, national and international science fairs since grade 7, gaining several opportunities to share my findings and also learn more about other's finding.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 300</b>