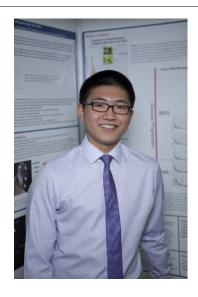




CWSF 2013 - Lethbridge, Alberta



Michael Xu

A Unique Mouse Model to Understand Human Disease Progression from MDS to AML

Challenge: Health Category: Senior

Youth Science Canada

PO Box 297

416-341-0040

Region: Manitoba Schools Science Symposium

City: Winnipeg, MB

School: St. John's Ravenscourt School

Abstract: MDS are medical conditions involving the abnormal production of blood

cells. In 30% of cases, MDS has a malignant transformation into AML, a deadly blood cancer. A unique mouse model is used to compare 3D telomeric profiles in mice to create an accurate diagnostic tool for assessing disease progression, providing the opportunity for early diagnosis and

improved individualized treatment for MDS/AML in humans.

Biography

As a grade 11 high school student from Manitoba, I've always had an interest in sports, music and science. Science particularly intrigued me with its practical applications to improve human health. At CancerCare Manitoba, I had the opportunity to be involved with leukemia research. My project uses a unique mouse model to create a new diagnostic tool that can identify steps of blood cancer disease progression in mice. With this diagnostic tool, further investigation involves applying this diagnostic tool in clinical trials with humans with the goal of advancing individualized treatment. My experience with science fair has been like none other. Working on a research project allowed me to explore my interests and actively learn about a topic, with an emphasis on critical thinking. Moreover, presenting to judges also provided a great opportunity to improve through their constructive feedback. In the future, I plan to continue pursuing sciences with an interest in practical applications. I am really grateful to have participated in science fairs and I am looking forward to presenting in Lethbridge.

Awards	Value
Excellence Award - Senior - Gold Medal	\$700
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$4 000
Senior Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of Manitoba Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: University of Manitoba	
University of Ottawa Entrance Scholarship	\$4 000
Senior Gold Medallist - \$4,000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: Western University	
Total	\$22 700





