

# CWSF 2019 - Fredericton, New Brunswick



## Leah Schwartz

### Regulation of Periostin Gene Expression by Scleraxis

**Challenge:** Health

**Category:** Senior

**Region:** Manitoba Schools Science Symposium

**City:** Winnipeg , MB

**School:** University of Winnipeg (Collegiate)

**Abstract:** Cardiac fibrosis is a major health problem. Proteins build up in the walls of the heart, leading to heart failure. We focused on a protein, Periostin, which seems to increase cardiac fibrosis. We found that another protein, Scleraxis, controls Periostin expression. As we gain a better understanding of the process of cardiac fibrosis, this will help us develop effective therapies to treat this serious problem.

### Biography

My name is Leah Schwartz. I am sixteen years old and a recent graduate of the University of Winnipeg Collegiate. I am the second of six children, born, raised and educated in Winnipeg. I have been fortunate to experience a variety of interests growing up, including playing both piano and double bass, participating in several school and community orchestras, playing both soccer and chess at a competitive level, and participating in a hospital-based patho-physiology research laboratory. My future plans include study in the sciences, including research work. An experience which has proved to be instrumental in my education and future goals was my participation at the International Summer School for Young Physicists in Waterloo, Ontario during the summer of 2018. This program brought me into contact with peers from across the globe, who share my interest in the sciences, research, and utilization of knowledge for improvement in global health. My life experience thus far has been varied, stimulating and enjoyable. I would advise other students who are considering a project to involve themselves in laboratory research. This work is exciting, rewarding and provides the student researcher with a first-hand experience that cannot be duplicated in any other way.

### Awards

### Value

Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
University of New Brunswick Canada-Wide Science Fair Scholarship Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of New Brunswick	\$5 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$27 000</b>