

## CWSF 2018 - Ottawa, Ontario



### David Moore, Hanna Schaefer

#### Inhibition of Telomerase by Antisense Therapy in Tetrahymena thermophila

**Challenge:** Health

**Category:** Senior

**Region:** North Bay

**City:** North Bay, ON

**School:** St. Joseph-Scollard Hall

**Abstract:** Telomerase is an enzyme that can repair telomeres, protective caps for chromosomes. Normal human cells usually have little to no telomerase, while human cancer cells often have large amounts of telomerase. By using antisense oligonucleotides, telomerase was inhibited in Tetrahymena thermophila. This indicates that targeted cancer treatment using antisense therapy may be effective and more accurate than current methods.

#### Biographies

David - I am a dedicated lifelong learner who has a passion for technology and computer science. I have been developing software for a variety of platforms since 2010, and I own and operate my own software development company, Moore Development. While my true passion lies with the technology industry, I believe that extending my reach to include various other fields can have a profound effect on my ability to positively impact people's lives. Cancer has affected a significant portion of the human population over many years, with the majority of people being impacted by its effects. Therapeutic cancer treatments have advanced significantly recently, a...

Hanna - My name is Hanna Schaefer. I am a grade 12 student attending St. Joseph Scollard Hall CSS in North Bay, Ontario. This past year I was involved in the AP biology program at my school. I have always had a strong interest in science and STEM. I am also a member of my school's science club and drumline ensemble. Outside of academics, some of my interests are the outdoors, reading, and dancing. The past two years I have been invited to national dance competitions. I also have a strong interest in languages. This summer will be my second year attending a five-week French immersion program. Next year, I will be attending Dalhousie University for Int...

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