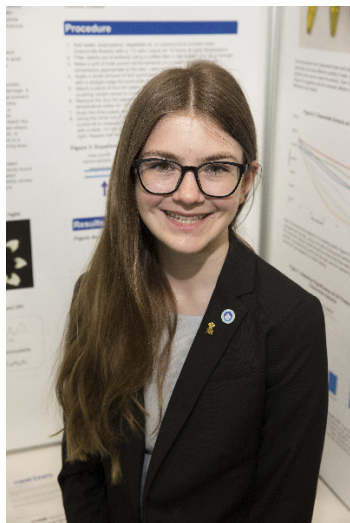


# CWSF 2019 - Fredericton, New Brunswick



## Rebecca Rathlef

### Natural Products as Potential Sunscreens

**Challenge:** Health

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** Prince of Wales Secondary

**Abstract:** The goal of this project was to develop a functional sunscreen from plant products. Skin cancer is a common disease, often caused by overexposure to ultraviolet light. This means it can be prevented by lessening UV exposure through sunscreen use. Some locations are banning the use of chemicals found in synthetic sunscreens due to environmental impacts, so a natural sunscreen would be beneficial.

#### Biography

Rebecca Rathlef is a Grade 9 student in Vancouver, BC. She is a Pathfinder with Girl Guides of Canada, and attends musical theatre classes. She enjoys travelling, but also likes to stay home with her three cats. Her project was a continuation of last years work on natural oils and butters as sunscreen. This was inspired by the incorrect information spread through the internet on platforms such as Pinterest and Facebook, specifically relating to how natural oils and butters had the ability to function as sunblocks. This project won a gold medal at the Greater Vancouver Regional Science Fair, the Vancouver School Board Award, and the chance to attend CWSF 2018 in Ottawa, where she won a gold medal. In her project this year she developed a chamomile extract that was able to absorb UV rays. This won a gold medal at the Vancouver fair, and the John O'Connor Award. In the future she'd like to test chamomile extracts under UVA light, and concentrate the extract to be comparable to commercial sunscreens. Her advice to students considering science fair is to reach for the stars, and never underestimate how far it can take you.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000