

ESPC 2016 - Montreal (Québec)



Katherine Teeter

Synthetic Limpet Teeth for Improved Joint Performance

Défi: Santé

Catégorie: Sénior

Région: Bluewater

Ville: Markdale, ON

École: Grey Highlands S.S.

Sommaire: The construction of prosthetic implants by synthesizing the constituents of limpet teeth showed great potential as a viable alternative to current implants. Combinations of chitin, goethite, chlorophyll extract, vitamin B12, and isopropanol were tested against existing prosthetic composites. 581 physical, chemical, and biological stress tests concluded that synthetic limpet teeth prosthetic implants were more resilient and could reduce adverse health conditions associated with current prosthetics.

Biographie

I am Katherine Teeter and in grade twelve at Grey Highlands Secondary School in Flesherton, Ontario. This is my sixth consecutive Canada Wide Science Fair competition and my seventh science fair project. A BBC article examining the extreme strength of limpet teeth inspired me to investigate this topic for medical applications. I enjoy being outside, swimming, reading, playing music and sports, and spending time with family and friends. I play lead clarinet in the concert band and practice piano with the RCM at a grade ten level. I love playing co-ed fastball, girls' hockey and volleyball competitively and recreationally. I am a Link Crew Leader, and I help to coach my younger brother's fastball team. I enjoy umpiring younger fastball games at my home centre and judging the Bluewater Regional Junior Science Fair. I assist my dad every day on the family farm during the summer. Science fair has and always will continue to positively change my life. My future endeavours may include doctoring or researching.

Prix

Valeur

Le Prix Manning en innovation - Sénior Commanditaire: Ernest C. Manning Awards Foundation	500,00 \$
Prix du défi - Santé - Sénior Commanditaire: AstraZeneca Canada	
Prix d'excellence - Sénior - Médaille d'or Commanditaire: Sciences jeunesse Canada	250,00 \$
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaille d'or, sénior - Bourse d'admission de 5 000 \$ Commanditaire: Université Dalhousie, Faculté des sciences	5 000,00 \$
Prix d'admission en sciences de UBC (Vancouver) Médaille d'or, sénior - Bourse d'admission de 4 000 \$ Commanditaire: The University of British Columbia (Vancouver)	4 000,00 \$
Bourse d'admission de l'Université du Manitoba Médaille d'or, sénior - Bourse d'admission de 5 000 \$ Commanditaire: Université du Manitoba	5 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille d'or, sénior - Bourse d'admission de 4 000 \$ Commanditaire: Université d'Ottawa	4 000,00 \$
Bourse d'études de Western University Médaille d'or - Bourse d'admission de 4 000 \$ Commanditaire: Université Western	4 000,00 \$
Bourse d'admission de l'Université McGill Une bourse de début d'études d'une valeur de 2 500\$ est offerte à chaque finaliste se voyant remettre un Prix Platine. Commanditaire: l'Université McGill	2 500,00 \$
Prix Platine - Meilleur projet sénior Commanditaire: Sciences jeunesse Canada	1 000,00 \$
Total	26 250,00 \$

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