

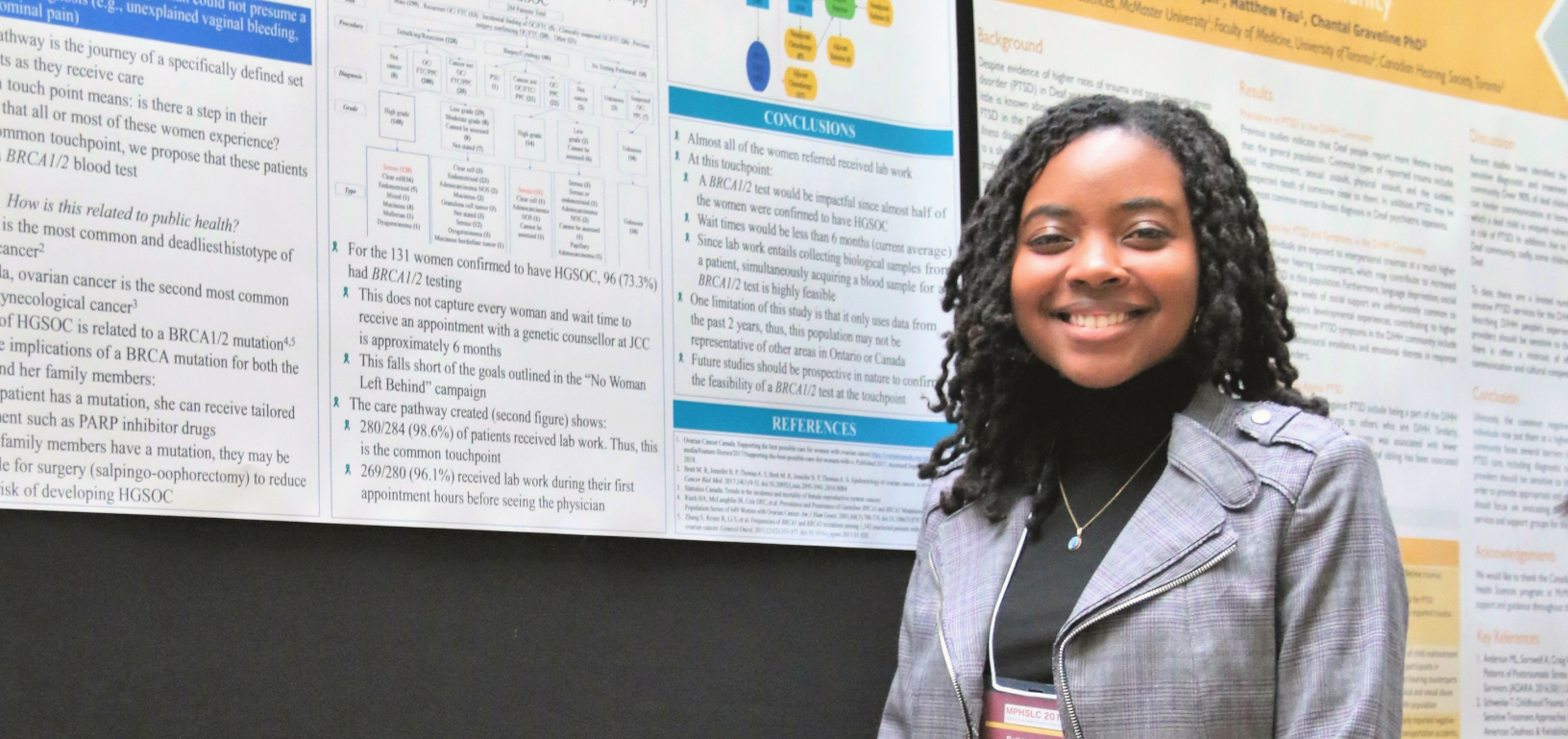


IMPACT AND SUMMARY REPORT

December 2018

IN OUR COMMUNITY: PUBLIC HEALTH ENGAGEMENT

*First Annual McMaster Public Health
Student-led Conference*



THE IMPORTANCE OF CONNECTING STUDENTS WITH THE COMMUNITY

In the heart of Hamilton lies McMaster University, which surrounds its students with unlimited opportunities to tackle Hamilton's most difficult and enduring problems. In 2015, the Master of Public Health program came to fruition to provide its students with opportunities to improve community health through experiential learning in epidemiological practice, research, and policy. Three years later, in 2018, the McMaster Public Health Student-Led Conference (MPHSLC) titled *"In Our Community: Public Health Engagement"* was established to collaboratively explore issues and developments in the field of public health. In hopes of connecting students, academics, and policymakers with the Hamilton community, this conference created space for thought-provoking and enlightening conversations about how public health can work with different community partners to act on the health disparities in Hamilton, and how to integrate community feedback into the planning and delivering of public health initiatives. It also provided students with an opportunity to enhance their communication skills, share their research, and engage with the knowledge translation process.

As the 2019 planning team begins to plan the second annual MPHSLC, it is important to document the successes of 2018's MPHSLC. This impact and summary report will provide a brief overview of who attended the conference as well as their feedback on the different components of the conference, including: poster session, breakout sessions, community roundtable, and keynote speaker.

Regards,
2019 MPHSLC Planning Team

CONFERENCE ATTENDEES

*There were a total of **97** attendees from diverse academic and professional backgrounds, which created an intimate experience for them to engage in thought-provoking conversations with one another.*

McMaster Staff & Faculty
12%

Community Partners
25%

- Public Health Ontario (PHO)
- Hamilton Health Sciences
- Ontario Public Health Association (OPHA)
- National Collaborating Centre for Methods and Tools (NCCMT)
- Diabetes Canada
- Institute for Clinical Evaluative Sciences (ICES)
- Canada Public Health Association (CPHA)
- Association of Public Health Epidemiologists in Ontario
- Canadian Longitudinal Study on Aging (CLSA)

Students
63%

77% of student attendees were **Master of Public Health** students

Other represented programs included:

- BAsC Public Health
- Global Health
- Chemistry
- Kinesiology
- Health Science



OVERALL CONFERENCE FEEDBACK

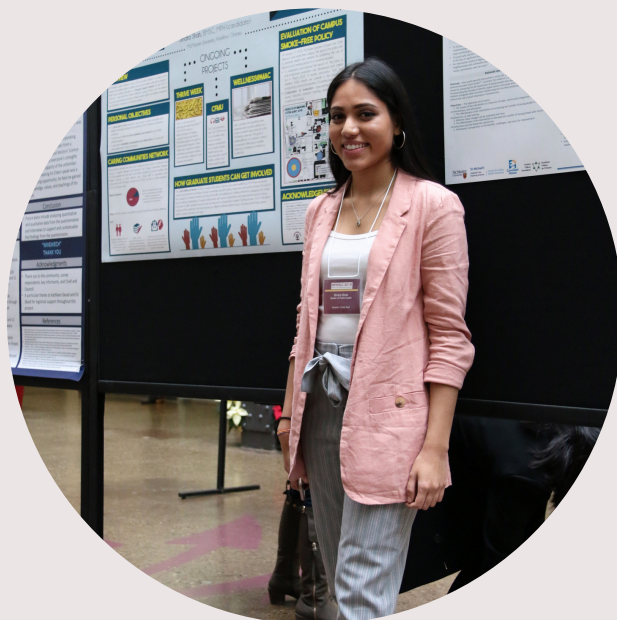
An evaluation was conducted by inviting all attendees to complete a post-conference survey...



86% of respondents agreed that this conference ***helped them gain knowledge relevant to their work and studies***

97% of respondents agreed that this conference ***covered topics related to public health and community engagement***

100% of respondents agreed that they ***would encourage others to attend this conference next year***



"The conference was very well organized, provided great information on relevant public health topics, and generated a lot of great discussion and networking."

"For its first time, this conference was outstanding, well organized and had a breadth of different public health topics. The roundtable session allowed me to connect with organization representatives I would have otherwise never had the chance to meet and engage with. Thank you to the organizers for giving us this opportunity. I hope that the conference continues to grow so that more people can attend and benefit from it."

KEYNOTE SPEAKERS



Al Fletcher
Grace Mater

Neighbourhood Development,
City of Hamilton

50%

of respondents reported that the keynote address and breakout sessions were the most enjoyable parts of the conference

BREAKOUT SESSIONS



Steve Buist

Investigative
Reporter and
Feature Writer,
Hamilton
Spectator

**"CODE RED: SOCIAL DETERMINANTS OF
HEALTH, COMMUNITY ENGAGEMENT &
RESEARCH COMMUNICATION"**



**Dr. Bernice
Downey**

Indigenous
Health Lead,
McMaster
University

**"INDIGENOUS COMMUNITY
ENGAGEMENT: NOTHING ABOUT US -
WITHOUT US"**



Sharon Mackinnon
Rachel Johnson
Christine Newbold
Elise Desjardins

Transportation Panel,
City of Hamilton

**"HEALTHY CITIES &
ACTIVE TRANSPORT"**

"I genuinely loved the Code Red workshop. I have been talking about it since I left the conference."

"I loved the session regarding Indigenous community engagement in public health."

COMMUNITY ROUNDTABLE

90%

of respondents agreed **the session**
was engaging

80%

of respondents agreed that they
networked with community
partners effectively

POSTER SESSION

84%

of respondents agreed that the topics
covered during the **poster presentations**
enhanced their public health knowledge



McMaster University

Mutation in *TRIM28* may be a Novel Cause of

Fatal Mortality in Humans

Ayesha Asaf (HJBS, MPH Candidate); David Meyre (McMaster University, Department of Health Research Methods, Epidemiology and Statistics)

Introduction

- Prevalence of obesity is on the rise across the world and is a major public health problem¹
- TRIM28* mediates transcriptional control and is involved in cellular differentiation and DNA damage repair²
- TRIM28* is a candidate for human Body Mass Index (BMI) variation³
- Human *trim28* null-allele mutated mice for *Trim28* and mice with heterozygous null-allele are not viable^{4,5}
- Mouse *Trim28* mice for *Trim28* exhibit bi-modal body mass⁶

to assess potential signatures of natural selection in the *TRIM28* gene in humans and mice

Materials

European (N=56,677)
South Asian (N=82,566)
Latino (N=57,893)
African (N=52,033)
East Asian (N=43,277)
Other (N=454)

Missense mutations⁷ | SIFT Polyphen2

between Missense mutation and Expectation⁸

Notated or Depleted

Significantly elevated

Significantly depleted

Table 1: Natural Selection Signature for *TRIM28*

Constraint from ExAC	Expected Number of Variants	Observed Number of Variants	Constraint Measure
Synonymous	120.4	166	2.1
Loss-of-function	26	0	pL
Missense	296.3	185	2.1
Copy Number Variations	6.6	157	2.1

- TRIM28* displays absolute loss-of-function intolerance; pL
- Significant depletion in missense mutations; $z > 3.09$

Discussion

- In humans, an absence of homozygous or heterozygous loss-of-function mutation carriers indicates individuals with these mutations were negatively selected and therefore, not viable
- Significant depletion of carriers of partial or total loss-of-function missense mutations were negatively selected, implying that these mutations have a high risk of fetal or infant mortality
- Although load of missense mutations in *TRIM28* is significantly different among ethnicities, this is unreliable because of variation in sample sizes of each group
- Mutations are in low frequency relative to homozygous missense mutations, indicative of negative selection
- In conclusion, mutations in *TRIM28* were negatively selected and may be a novel cause of fatal mortality in humans

References

THANK YOU TO OUR 2018 SPONSORS

The 2018 MPH Student-Led Conference would not have been possible without the kind contributions of our sponsors.



Hamilton
Public Health Services



National Collaborating Centre
for Methods and Tools

Centre de collaboration nationale
des méthodes et outils



We would like to also thank Dr. Ellen Amster for her kind contribution of \$500.