COVID-19 Report Ontario COVID-19 Science Advisory Table

Liam Sturgess

January 30, 2022

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Members

Zainab Abdurrahman

Abdurrahman provided identical disclosure forms to the OST on February 8, May 14, and August 30, 2021.

Albany Medical Clinic

Abdurrahman practices medicine at Albany Medical Clinic, which on December 19, 2021 instructed patients to "get boosted" with an additional COVID-19 shot when eligible due to the Omicron variant.¹

Black Scientists' Task Force on Vaccine Equity

Abdurrahman is a member of the BSTFVE, which was "created to share information about COVID-19 to the Black Canadian community and address their concerns about COVID-19 related issues."²

Canadian Society of Allergy and Clinical Immunology

Abdurrahman is Fellows in Training co-Supervisor for the Canadian Society of Allergy and Clinical Immunology (CSACI), from whom she receives funding for speakers bureau/honoraria and/or work on advisory boards.^{3, 4}

CBC News

Abdurrahman has appeared in many news segments on CBC News discussing COVID-19 or related pharmaceutical companies:

¹ Specialists. Albany Medical Clinic. Retrieved December 19, 2021, from https://www.albanyclinic.ca/medical-staff/specialists/

² Black Scientists' Task Force on Vaccine Equity. https://www.torontoblackcovid.com/

³ CSACI 2021 Annual Scientific Meeting Final Program. (2021, October 23). Canadian Society of Allergy and Clinical Immunology. https://web.archive.org/web/20220130101738/https://am.csaci.ca/wp-content/uploads/2021/10/October-23-2021.pdf

⁴ Abdurrahman, Z. (2021, August 30). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group Zainab-Abdurrahman 20210830.pdf

- In a November 2019 segment, she advocated for Benadryl (a Johnson & Johnson product).⁵
- In December 2020, she downplayed concerns about allergic reactions to ingredients in the vaccine products including polyethylene glycol (PEG).⁶
- Also in December 2020, she reiterated that severe adverse reactions such as anaphylaxis are not common and that the focus should be on the "thousands who are being inoculated and tolerating it well."⁷
- In January 2021, she commented "insect venom that could trigger a reaction in people in this situation is not a component in the vaccine profiles" in response to a situation where a woman didn't want to take the COVID-19 shot because she had previously suffered an allergic reaction to the flu shot and had a honey bee allergy.⁸
- In November 2021, she appeared alongside Supriya Sharma, Heath Canada's chief medical adviser, to discuss COVID-19 injections for children.^{9, 10}

McMaster Children's Hospital

Abdurrahman is employed at McMaster Children's Hospital as the allergy lead in the Special Immunization Clinic focusing on vaccine allergy, where she has clinics.¹¹

McMaster University

Abdurrahman is an Adjunct Assistant Clinical Professor in the Department of Pediatrics at McMaster University, where she completed her Pediatrics training as well as her subspecialty training in Clinical Immunology and Allergy. Her academic interests include vaccine allergy, asthma, anaphylaxis, and food allergy, particularly the patient and caregiver experience. She also has a strong interest in medical education and is involved with the training of residents.

Her vaccine-related publications include:

⁵ On CBC News November 2019. (2019, November). LinkedIn. https://www.linkedin.com/in/z-abdurrahman-draforallergy/detail/overlay-view/urn:li:fsd_profileTreasuryMedia:(ACoAACBs6mkBViF9zPaqONeFUz1yW8SWu9Oh-Dq,1574308226409)/

⁶ Clinical allergist answers key questions about vaccine. (2020, December 15). CBC News. https://www.cbc.ca/player/play/1831981635920

⁷ Severe COVID-19 vaccine reactions like anaphylaxis not common, says specialist. (2020, December). CBC News. https://www.cbc.ca/player/play/1833481795921

⁸ Ghonaim, H. (2021, January 21). Covid vaccination requirement means lost opportunity for Guelph, Ont., nurse. CBC News. https://www.cbc.ca/news/canada/kitchener-waterloo/guelph-nurse-waterloo-health-covid-mandatory-vaccination-1.5873659

⁹ Bresnahan, R. (2021, November 22). Experts answer your questions about kids and COVID-19 vaccines. CBC Radio. https://www.cbc.ca/player/play/1976583235889

¹⁰ Bresnahan, R., Sharma, S., & Abdurrahman, Z. (2021, November 22). *Monday November 22, 2021 Full Transcript*. CBC Radio. https://www.cbc.ca/radio/thecurrent/the-current-for-nov-22-2021-1.6257939/monday-november-22-2021-full-transcript-1.6258680

¹¹ Special Immunization Clinic (SIC) Network. Canadian Immunization Research Network. Retrieved January 30, 2022, from https://archive.ph/zU800

¹² Zainab Abdurrahman - McMaster Experts. McMaster University. Retrieved December 19, 2021, from https://experts.mcmaster.ca/display/abdurraz

- Vaccine allergy¹³
 - She reported "receiving personal fees from Pfizer, outside the submitted work".
 This was not reported in her OST disclosures or biography
- Experiencing a first food allergic reaction: a survey of parent and caregiver perspectives¹⁴
 - Funded by an educational grant from McMaster University

Ontario College of Family Physicians

Abdurrahman receives funding from through fees paid for speakers bureau/honoraria, and/or for work on advisory boards from the Ontario College of Family Physicians (OCFP). One such speaking engagement was "Update on COVID-19 vaccines - Part 2", the fourteenth installment of the "Changing the way we work" series delivered alongside the University of Toronto.¹⁵

Ontario COVID-19 Science Advisory Table

Abdurrahman is a member of the Drugs & Biologics Clinical Practice Guidelines Working Group on the Ontario COVID-19 Science Advisory Table.¹⁶

Ontario eConsult

Abdurrahman is referenced as an Allergy & Clinical Immunology specialist in materials for Ontario eConsult, a backend telehealth support service partnered with the Ottawa Hospital and Bruyère Research Institute.^{17, 18}

OntarioMD

Abdurrahman is employed by OntarioMD as a Physician Peer Leader, where she also sits on the Board of Directors.¹⁹ OntarioMD is a wholly-owned subsidiary of the Ontario Medical Association, funded by the Province of Ontario.²⁰ This is not fully disclosed on her OST disclosure forms, and is omitted from her OST bio.

¹³ Chu, D. K., & Abdurrahman, Z. (2019). *Vaccine allergy.* Canadian Medical Association Journal, 191(14), E395–E395. https://doi.org/10.1503/cmaj.190208

¹⁴ Abdurrahman, Z. B., Kastner, M., Wurman, C., Harada, L., Bantock, L., Cruickshank, H., & Waserman, S. (2013). *Experiencing a first food allergic reaction: a survey of parent and caregiver perspectives*. Allergy, Asthma & Clinical Immunology, 9(1). https://doi.org/10.1186/1710-1492-9-18

¹⁵ University of Toronto. (2021, January 15). COVID-19 Community of Practice. Department of Family & Community Medicine. https://dfcm.utoronto.ca/event/covid-19-community-practice-1

¹⁶ About Us. Ontario COVID-19 Science Advisory Table. Retrieved December 19, 2021, from https://covid19-sciencetable.ca/about/#abdurrahman-zainab

¹⁷ About. Ontario eConsult. Retrieved January 30, 2022, from https://archive.ph/ggO3W

¹⁸ COVID-19 Vaccine Allergy Advice through eConsult. Ontario eConsult. Retrieved January 30, 2022, from https://web.archive.org/web/20220107190234/https://www.cmaj.ca/content/cmaj/191/14/E395.full.pdf

¹⁹ Board of Directors. OntarioMD. Retrieved December 19, 2021, from https://www.ontariomd.ca/about-us/our-organization/board-of-directors

²⁰ Our Organization. OntarioMD. Retrieved December 19, 2021, from https://www.ontariomd.ca/about-us/our-organization

Ontario Medical Association

Abdurrahman is the Chair for the Section of Allergy and Clinical Immunology at the Ontario Medical Association as well as a member of the OMA Civility, Diversity, and Inclusion committee. She was elected to the board in May 2021.^{21, 22}

She features in the following OMA videos:

- "Doctors. We lead you to better health. (FULL)"23
 - o A poster can be seen in the background at 1:31, that says "Vaccines. Ask your Doctor. Not the Internet."
- "Meet the Doctors: Dr. Zainab Abdurrahman"²⁴

Pharmaceutical Companies

Abdurrahman receives funding from through fees paid for speakers bureau/honoraria, and for work on advisory boards from the following pharmaceutical companies:

- ALK (allergy pharmaceuticals)
- Bausch Health (pharmaceutical company testing virazole for COVID-19 treatment)²⁵
- Medexus Pharmaceuticals Inc. (formerly Pediapharm rare disease pharmaceutical company)²⁶
- Merck
- Miravo Healthcare (formerly Aralez)
- Novartis
- Pfizer (this was not reported in her OST disclosures or biography).
- Sanofi-Genzyme Covis (specialty care global business unit of Sanofi, focused on rare diseases, rare blood disorders, neurology, immunology, and oncology)²⁷

²¹ Abdurrahman, Z. (2021, August 30). Declaration of Interest. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Zainab-Abdurrahman_20210830.pdf

²² Board of Directors - Zainab Abdurrahman. Ontario Medical Association. Retrieved December 19, 2021, from https://www.oma.org/what-we-do/about-the-oma/governance/board-of-directors/#:^:text=Zainab%20Abdurrahman%2C%20MD ²³ Ontario Medical Association. (2020, January 27). *Doctors. We lead you to better health. (FULL).* YouTube.

https://www.youtube.com/watch?v=OSVA1FIQDOQ

²⁴ Ontario Medical Association. (2020, January 27). *Meet the Doctors: Dr. Zainab Abdurrahman*. YouTube. https://www.youtube.com/watch?v=0IX-TIXNrgk

²⁵ Keller, L., & Shannon, A. (2020, April 13). Bausch Health Initiates VIRAZOLE® (Ribavirin for Inhalation Solution, USP) Clinical Study in Patients with COVID-19. Bausch Health. https://ir.bauschhealth.com/news-releases/2020/04-13-2020-120008693

²⁶ Medexus Pharmaceuticals Inc. (2018, December 13). Pediapharm Announces Name Change, Consolidation and Debenture Repayment. GlobeNewswire News Room.

 $[\]underline{https://www.qlobenewswire.com/en/news-release/2018/12/13/1666975/0/en/Pediapharm-Announces-Name-Change-Consolidation-announces-Name-Change$ d-Debenture-Repayment.html

²⁷ Specialty Care. Sanofi. Retrieved December 19, 2021, from https://www.sanofi.com/en/your-health/specialty-care

 Stallergenes-Greer (global biopharmaceutical company headquartered in London, specializing in the diagnosis and treatment of respiratory allergies through immunotherapy)²⁸

She also holds stock and/or stock options in Pediapharm (presumably under the new name Medexus Pharmaceuticals Inc.), and other unnamed "health care based ETFs", noting she therefore "may have holdings in pharmaceutical companies".

Public Health Agency of Canada

Abdurrahman conducted "contract work for the Public Health Agency of Canada" in 2005.²⁹

Q & A Allergy

Abdurrahman practices medicine at Q & A Allergy in Mississauga.30

Scarborough Health Centre

Abdurrahman practices medicine at Scarborough Health Centre.31

St Joseph's Healthcare System

Abdurrahman has hospital privileges at St Joseph's Healthcare System.³¹

University of Toronto

Abdurrahman is a 2007 graduate of the University of Toronto Medical School.³¹

²⁸ Stallergenes Greer's commitment during the COVID-19 pandemic. Stallergenes Greer. Retrieved December 19, 2021, from https://www.stallergenesgreer.com/ca/stallergenes-greers-commitment-during-covid-19-pandemic

²⁹ Abdurrahman, Z. *Zainab Abdurrahman CV*. Retrieved December 19, 2021, from https://www.drza.org/_files/ugd/31151c_79d3d18115ad40be9c62c1fa754d577a.pdf

³⁰ Dr. A Discusses Allergies and the COVID 19 mRNA Vaccines on CBC. (2020, December 17). Q & A Allergy. https://www.gandaallergy.ca/post/dr-a-discusses-allergies-and-the-covid-19-mrna-vaccines-on-cbc

³¹ CPSO - Doctor Details. College of Physicians and Surgeons of Ontario. Retrieved December 19, 2021, from https://doctors.cpso.on.ca/DoctorDetails/Abdurrahman-Zainab-Bukola/0242305-86703

Upton Allen

American Academy of Pediatrics

Allen is a Fellow of the American Academy of Pediatrics.³²

American Society of Transplantation

Allen is a member of the American Society of Transplantation Infectious Diseases Community of Practice, with which he's published a paper titled "Influenza Vaccination in the Organ TransplantRecipient: Review and Summary Recommendations". In his disclosures, Allen states he had received various forms of funding from Hoffman Ia Roche, Pfizer, and ADMA Biologics. ³³ This was not reported on his OST disclosure forms or biography.

Infectious Diseases Society of America

Allen is a former Director of the Infectious Diseases Society of America, and is a fellow in the society.³⁴ The society is funded through their foundation by AbbVie, ALK, Allergan, the Alzheimer's Association, American Academy of Insurance Medicine, Bristol-Myers Squibb, Capital for Good (an NGO with ties to the Clinton Foundation, Vanguard, UNESCO, United Nations, the World Bank and the Peace Corps),³⁵ Gilead, Janssen, The Medicines Company (since acquired by Novartis), Melinta Therapeutics, Merck, Morgan Stanley, Open Society Foundations (George Soros), Pfizer, Regeneron, Seres Therapeutics, Shionogi, Takeda (member of BIOTECanada and Innovative Medicines Canada), Theravance Biopharma, Vertex, and ViiV Healthcare (a merger of

³² Upton Allen | SickKids Directory. SickKids. Retrieved January 30, 2022, from https://archive.ph/I8QPU

³³ Kumar, D., Blumberg, E. A., Danziger-Isakov, L., Kotton, C. N., Halasa, N. B., Ison, M. G., Avery, R. K., Green, M., Allen, U. D., Edwards, K. M., Miller, G., & Michaels, M. G. (2011). *Influenza Vaccination in the Organ Transplant Recipient: Review and Summary Recommendations*. American Journal of Transplantation, 11(10), 2020–2030. https://doi.org/10.1111/j.1600-6143.2011.03753.x

³⁴ Dr. Upton Allen – Leadership. Life Long Leadership Institute. Retrieved January 30, 2022, from https://archive.ph/gOKgs

³⁵ Board of Directors. Capital for Good. Retrieved December 20, 2021, from https://www.capitalforgood.org/board-of-directors

the HIV wings of Pfizer and GlaxoSmithKline).^{36, 37, 38, 39, 40, 41, 42, 43} These ties to pharmaceutical companies were not reported in his OST disclosure forms and biography. Allen has contributed to publications funded by the society including "Charting the Path Forward: Development, Goals and Initiatives of the 2019 Infectious Diseases Society of America Strategic Plan".⁴⁴

Ontario COVID-19 Science Advisory Table

Allen sits on the Behavioural Science Working Group of the Ontario COVID-19 Science Advisory Table. He completed two disclosure forms, neither of which report his funding from various pharmaceutical companies.^{45, 46}

Province of Ontario

In 2018, Allen was awarded the Order of Ontario.⁴⁷

Royal College of Physicians

Allen is a Fellow of the Royal College of Physicians in the United Kingdom.

Royal College of Physicians and Surgeons of Canada

Allen is a Fellow of the Royal College of Physicians and Surgeons of Canada.

https://www.sickkids.ca/en/news/archive/2018/dr.-upton-allen-appointed-to-order-of-ontario-/

³⁶ 2019-2020 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 19, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/2021-09326-Foundation-Annual-Report-Interactive.pdf

³⁷ Corporate Support. Infectious Diseases Society of America Foundation. Retrieved December 19, 2021, from https://idsafoundation.org/giving/corporate-support/

³⁸ 2018 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 19, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/Annual-Report-v7.pdf

³⁹ 2017 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 20, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-FI
NAL.pdf

⁴⁰ 2016 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 20, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/Annual-Report-2016.pdf

⁴¹ 2015 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 20, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/2021/09/IDSA-Foundation-Annual-Report-20">https://secureservercdn.net/198.71.233.167/vj0.950.myftpuploads/20">https://secureservercdn.net/198.71.233.167/vj0.95

⁴² 2014 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 20, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/IDSAF_AnnualReport_Final_51115.p df

⁴³ 2012 Annual Report. Infectious Diseases Society of America Foundation. Retrieved December 20, 2021, from https://secureservercdn.net/198.71.233.167/vj0.950.myftpupload.com/wp-content/uploads/2021/09/Annual-Report-2012.pdf

⁴⁴ Sears, C. L., File, T. M., Alexander, B. D., McQuillen, D. P., MacIntyre, A. T., Allen, U. D., Colasanti, J. A., Siddiqui, J., Reveles, K. R., & Busky, C. (2019). *Charting the Path Forward: Development, Goals and Initiatives of the 2019 Infectious Diseases Society of America Strategic Plan.* Clinical Infectious Diseases, 69(12), e1–e7. https://doi.org/10.1093/cid/ciz1040

⁴⁵ Allen, U. (2021, February 12). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Behavioural-Science-Working-Group_Upton-Allen.pdf

⁴⁶ Allen, U. (2020, July 21). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2020/07/Declaration-of-Interest_Science-Table_Upton-Allen.pdf ⁴⁷ Dr. Upton Allen appointed to Order of Ontario. (2018, February 1). SickKids.

SickKids

Allen is chief of the Division of Infectious Diseases and a Senior Associate Scientist in the Research Institute at the Hospital for Sick Children (SickKids).⁴⁸ His profile lists funding from the Canadian Institutes of Health Research (CIHR), Alberta Innovates Health Solutions, Enduring Heart Foundation, AbbVie, the University of Toronto and the SickKids Foundation. His relationship with AbbVie was not reported on his OST disclosure forms or biography. "Using the research infrastructure that he has created, he has been able to rapidly build a team to address host genetic susceptibility to COVID-19. In addition, he is leading studies addressing the immune response profiles due to COVID-19 in different age groups."

Relevant articles include:

- Dr. Upton Allen from SickKids leads team assessing COVID-19 prevalence, risk factors among Black Canadian communities⁴⁹
 - o Funded by SickKids and the University of Toronto
- SickKids researchers studying plasma of COVID-19 survivors⁵⁰
 - Funded by the Stollery Children's Hospital Foundation and SickKids Foundation

The Transplantation Society International CMV Consensus Group

As a member of the CMV Consensus Group, Upton co-authored a paper titled "The Third International Consensus Guidelines on the Management of Cytomegalovirus in Solid-organ Transplantation". The paper and the conference in question was funded by Hoffman LaRoche, Merck, Oxford Immunotec, Qiagen, Shire, CSL Behring, Lophius Biosciences, Chimerix, Roche Molecular Systems, and Abbott Laboratories. ⁵¹ A similar paper called "Updated International Consensus Guidelines on the Management of Cytomegalovirus in Solid-Organ Transplantation" was published in 2013, funded by Roche. ⁵² These pharmaceutical ties were not reported on his OST disclosure forms or biography.

⁴⁸ Upton Allen. SickKids. Retrieved December 20, 2021, from https://www.sickkids.ca/en/staff/a/upton-allen/

⁴⁹ Luck, J. (2020, September 15). *Dr. Upton Allen from SickKids leads team assessing COVID-19 prevalence, risk factors among Black Canadian communities.* SickKids.

 $[\]frac{\text{https://www.sickkids.ca/en/news/archive/2020/upton-allen-sickkids-leads-team-assessing-covid-19-prevalence-risk-factors-among-black-canadian-communities/}{}$

⁵⁰ SickKids researchers studying plasma of COVID-19 survivors. (2020, May 29). SickKids. https://www.sickkids.ca/en/news/archive/2020/sickkids-researchers-studying-plasma-of-covid-19-survivors/

⁵¹ Kotton, C. N., Kumar, D., Caliendo, A. M., Huprikar, S., Chou, S., Danziger-Isakov, L., & Humar, A. (2018). *The Third International Consensus Guidelines on the Management of Cytomegalovirus in Solid-organ Transplantation*. Transplantation, 102(6), 900–931. https://doi.org/10.1097/tp.000000000002191

⁵² Kotton, C. N., Kumar, D., Caliendo, A. M., Åsberg, A., Chou, S., Danziger-Isakov, L., & Humar, A. (2013). *Updated International Consensus Guidelines on the Management of Cytomegalovirus in Solid-Organ Transplantation*. Transplantation, 96(4), 333–360. https://doi.org/10.1097/tp.0b013e31829df29d

University of Toronto

Allen is a Professor of Paediatrics and in the Institute of Health Policy, Management and Evaluation, University of Toronto.⁵³

⁵³ University of Toronto. *Allen Upton.* Institute of Health Policy, Management and Evaluation. Retrieved December 20, 2021, from https://ihpme.utoronto.ca/faculty/allen-upton/

Vanessa Allen

Johns Hopkins University

Allen received her Masters of Public Health from Johns Hopkins University in 2012.

McGill University

Allen received her medical degree from McGill University in 2002.

Ontario COVID-19 Science Advisory Table

Allen is a member of the Ontario COVID-19 Science Advisory Table. She is interested in "the implementation and evaluation of the use of novel diagnostic methods such as genomics, artificial intelligence and point of care testing to advance infectious diseases and public health prevention and response."⁵⁴

She has contributed to the following Science Table publications:

- COVID-19 Hospitalizations, ICU Admissions and Deaths Associated with the New Variants of Concern⁵⁵
- COVID-19 and Ontario's Long-Term Care Homes⁵⁶
- Routine Asymptomatic SARS-CoV-2 Screen Testing of Ontario Long-Term Care Staff After COVID-19 Vaccination⁵⁷

Ontario Health

Allen is the Medical Director of the Provincial COVID-19 Diagnostic Network for Ontario Health.⁵⁸

⁵⁴ About Us. Ontario COVID-19 Science Advisory Table. Retrieved December 20, 2021, from https://covid19-sciencetable.ca/about/#allen-vanessa

⁵⁵ Tuite, A. R., Fisman, D. N., Odutayo, A., Bobos, P., Allen, V., Bogoch, I. I., Brown, A. D., Evans, G. A., Greenberg, A., Hopkins, J., Maltsev, A., Manuel, D. G., McGeer, A., Morris, A. M., Mubareka, S., Munshi, L., Murty, V. K., Patel, S. N., Razak, F., & Reid, R. J. (2021). *COVID-19 Hospitalizations, ICU Admissions and Deaths Associated with the New Variants of Concern.* Science Briefs of the Ontario COVID-19 Science Advisory Table, 1(18). https://doi.org/10.47326/ocsat.2021.02.18.1.0

⁵⁶ Stall NM, Brown KA, Maltsev A, et al. (2021). COVID-19 and Ontario's Long-Term Care Homes. Science Briefs of the Ontario COVID-19 Science Advisory Table, 2(7). https://doi.org/10.47326/ocsat.2021.02.071.0

⁵⁷ Kain, D., Stall, N. M., Allen, V., Evans, G. A., Hopkins, J., Kouyoumdjian, F. G., McGeer, A., Mubareka, S., Patel, S. N., Rochon, P. A., Schwartz, B., Juni, P., & Johnstone, J. (2021). *Routine Asymptomatic SARS-CoV-2 Screen Testing of Ontario Long-Term Care Staff After COVID-19 Vaccination*. Science Briefs of the Ontario COVID -19 Science Advisory Table, 2(15). https://doi.org/10.47326/ocsat.2021.02.15.1.0

⁵⁸ COVID-19 Test Collection and Analysis. (2021, October 12). Ontario Health. https://www.ontariohealth.ca/COVID-19/testing-analysis

Public Health Ontario

Allen served as the Chief of Microbiology and Laboratory Science at Public Health Ontario from May 2013 to September 2021.

While in this role, Allen's relevant publications included:

- The Impact of Infection on Population Health: Results of the Ontario Burden of Infectious Diseases Study⁵⁹
 - Funded by Public Health Ontario and the Institute for Clinical Evaluative Sciences (ICES), which were themselves both funded by the Ontario Ministry of Health and Long-Term Care (MOHLTC).
- Diagnosis and Management of First Case of COVID-19 in Canada: Lessons Applied From SARS-CoV-1⁶⁰
- Pandemic H1N1 influenza infection and vaccination in humans induces cross-protective antibodies that target the hemagalutinin stem⁶¹
 - Funded via grants to her colleagues by the Canadian Institutes for Health Research (CIHR), the International Consortium on Anti-Virals (ICAV), and the Michael Smith Foundation for Health Research.
- Lack of COVID-19 transmission on an international flight⁶²
- SARS-CoV-2 Seroprevalence Survey Estimates Are Affected by AntiNucleocapsid Antibody Decline⁶³
 - Funded by Public Health Ontario, Canada's COVID-19 Immunity Task Force, and the Public Health Agency of Canada.
- Detection of the novel SARS-CoV-2 European lineage B.1.177 in Ontario, Canada⁶⁴
 - Funded by Public Health Ontario, Genome Canada, Canadian COVID Genomics Network (CanCOGeN).

⁵⁹ Kwong, J. C., Ratnasingham, S., Campitelli, M. A., Daneman, N., Deeks, S. L., Manuel, D. G., Allen, V. G., Bayoumi, A. M., Fazil, A., Fisman, D. N., Gershon, A. S., Gournis, E., Heathcote, E. J., Jamieson, F. B., Jha, P., Khan, K. M., Majowicz, S. E., Mazzulli, T., McGeer, A. J., & Muller, M. P. (2012). *The Impact of Infection on Population Health: Results of the Ontario Burden of Infectious Diseases Study.* PLoS ONE, 7(9), e44103. https://doi.org/10.1371/journal.pone.0044103

⁶⁰ Marchand-Senécal, X., Kozak, R., Mubareka, S., Salt, N., Gubbay, J. B., Eshaghi, A., Allen, V., Li, Y., Bastien, N., Gilmour, M., Ozaldin, O., & Leis, J. A. (2020). *Diagnosis and Management of First Case of COVID-19 in Canada: Lessons Applied From SARS-CoV-1.* Clinical Infectious Diseases, 71(16). https://doi.org/10.1093/cid/ciaa227

⁶¹ Thomson, C. A., Wang, Y., Jackson, L. M., Olson, M., Wang, W., Liavonchanka, A., Keleta, L., Silva, V., Diederich, S., Jones, R. B., Gubbay, J., Pasick, J., Petric, M., Jean, F., Allen, V. G., Brown, E. G., Rini, J. M., & Schrader, J. W. (2012). *Pandemic H1N1 Influenza Infection and Vaccination in Humans Induces Cross-Protective Antibodies that Target the Hemagglutinin Stem.* Frontiers in Immunology, 3(Article 87). https://doi.org/10.3389/fimmu.2012.00087

Schwartz, K. L., Murti, M., Finkelstein, M., Leis, J. A., Fitzgerald-Husek, A., Bourns, L., Meghani, H., Saunders, A., Allen, V., & Yaffe, B. (2020). Lack of COVID-19 transmission on an international flight. CMAJ, 192(15), E410–E410. https://doi.org/10.1503/cmaj.75015
 Bolotin, S., Tran, V., Osman, S., Brown, K. A., Buchan, S. A., Joh, E., Deeks, S. L., & Allen, V. G. (2021). SARS-CoV-2 Seroprevalence Survey Estimates Are Affected by Anti-Nucleocapsid Antibody Decline. The Journal of Infectious Diseases, 223(8), 1334–1338. https://doi.org/10.1093/infdis/jiaa796

⁶⁴ Guthrie, J. L., Teatero, S., Zittermann, S., Chen, Y., Sullivan, A., Rilkoff, H., Joshi, E., Sivaraman, K., de Borja, R., Sundaravadanam, Y., Laszloffy, M., Heisler, L., Allen, V. G., Simpson, J. T., & Fittipaldi, N. (2021). *Detection of the novel SARS-CoV-2 European lineage B.1.177 in Ontario*, Canada. Journal of Clinical Virology Plus, 1(1-2), 100010. https://doi.org/10.1016/j.jcvp.2021.100010

- Characteristics of SARS-CoV-2 testing for rapid diagnosis of COVID-19 during the initial stages of a global pandemic⁶⁵
- Real-time RT-PCR Allelic Discrimination Assay for Detection of N501Y Mutation in the Spike Protein of SARS-CoV-2 Associated with Variants of Concern⁶⁶
 - Funded by Public Health Ontario
- Impact of COVID-19 pre-test probability on positive predictive value of high cycle threshold SARS-CoV-2 real-time reverse transcription PCR test results⁶⁷

Sinai Health Network

Allen is a Medical Microbiologist and Clinical Infectious Diseases Specialist at Sinai Health Network.⁶⁸

Sunnybrook Health Sciences Centre

Allen is registered to practice medicine at Sunnybrook Health Sciences Centre. 69

University Health Network

Allen is a Medical Microbiologist and Clinical Infectious Diseases Specialist at University Health Network.⁷⁰

University of Toronto

Allen is an Assistant Professor in the Department of Laboratory Medicine and Pathobiology at the University of Toronto, where she completed her internal medicine, infectious diseases and medical microbiology residencies (2005, 2007 and 2008).⁷¹

⁶⁵ Guthrie, J. L., Chen, A. J., Budhram, D. R., Cronin, K., Peci, A., Nelson, P., Mallo, G. V., Broukhanski, G., Murti, M., Majury, A., Mazzulli, T., Allen, V. G., Patel, S. N., Kus, J. V., Tran, V., & Gubbay, J. B. (2021). *Characteristics of SARS-CoV-2 testing for rapid diagnosis of COVID-19 during the initial stages of a global pandemic*. PLOS ONE, 16(7), e0253941. https://doi.org/10.1371/journal.pone.0253941 66 Abdulnoor, M., Eshaghi, A., Perusini, S. J., Corbeil, A., Cronin, K., Fittipaldi, N., Forbes, J. D., Guthrie, J. L., Kus, J. V., Majury, A., Mazzulli, T., Melano, R. G., Olsha, R., Sullivan, A., Tran, V., Patel, S. N., Allen, V. G., & Gubbay, J. B. (2021). *Real-time RT-PCR Allelic Discrimination Assay for Detection of N501Y Mutation in the Spike Protein of SARS-CoV-2 Associated with Variants of Concern.* medRxiv. https://doi.org/10.1101/2021.06.23.21258782

⁶⁷ Gubbay, J. B., Rilkoff, H., Kristjanson, H. L., Forbes, J. D., Murti, M., Eshaghi, A., Broukhanski, G., Corbeil, A., Fittipaldi, N., Hopkins, J. P., Kristjanson, E., Kus, J. V., Macdonald, L., Majury, A., Mallo, G. V., Mazzulli, T., Melano, R. G., Olsha, R., Perusini, S. J., & Tran, V. (2021). Impact of COVID-19 pre-test probability on positive predictive value of high cycle threshold SARS-CoV-2 real-time reverse transcription PCR test results. Infection Control & Hospital Epidemiology, 1–18. https://doi.org/10.1017/ice.2021.369

⁶⁸ Leadership Changes at Public Health Ontario. (2021, August 17). Public Health Ontario. https://www.publichealthontario.ca/en/about/blog/2021/leadership-changes

⁶⁹ CPSO - Doctor Details. College of Physicians and Surgeons of Ontario. Retrieved January 1, 2022, from https://doctors.cpso.on.ca/DoctorDetails/Allen-Vanessa---Gray/0193921-77875

⁷⁰ Vanessa Allen. ResearchGate. Retrieved January 1, 2022, from https://www.researchgate.net/profile/Vanessa-Allen-3

⁷¹ Vanessa G Allen. University of Toronto. Retrieved January 1, 2022, from https://lmp.utoronto.ca/faculty/vanessa-g-allen

Nisha Andany

Education

Andany completed her Bachelor of Sciences at the University of Waterloo in 2007. She majored in health studies and biology. She then received her MD in 2011 from the University of Toronto. She completed a Masters in Public Health at the Harvard T.H. Chan School of Public Health in 2018.⁷²

Ontario COVID-19 Science Advisory Table

Andany is a member of the Drugs & Biologics Clinical Practice Guidelines Working Group on the Ontario COVID-19 Science Advisory Table. In this role, she co-authored a paper advocating against using ivermectin for prophylaxis or treatment of COVID-19 on the grounds that "inappropriate use of ivermectin for COVID-19 may make it unavailable for patients who could benefit from its use (i.e., patients with serious parasitic infections) and reduce the already limited supply of ivermectin in Canada."⁷³

Another paper bearing her name described azithromycin, bamlanivimab, colchicine, hydroxychloroquine, ivermectin, lopinavir-ritonavir, and vitamin D as "non-recommended therapies" which "either have demonstrable harm or lack sufficient evidence from randomized trials to warrant their use." They advocated instead for use of dexamethasone, as well as monoclonal antibody treatments casirivimab and imdevimab (produced by Regeneron). 74, 75

⁷² Imrie, K. (2018). *A message from the Physician-in-Chief, Dr. Kevin Imrie*. Department of Medicine Fall Newsletter, 3. Sunnybrook Health Sciences Centre. https://sunnybrook.ca/uploads/1/departments/medicine/dom_180901.pdf

⁷³ Leung, E., McIntyre, M., Andany, N., Ciccotelli, W. A., Graham, C., Jüni, P., Langford, B., McCarthy, A. E., Nott, C., Gold, W. L., Pai, M., Patel, S., Raybardhan, S., Stall, N. M., & Morris, A. M. (2021). *Ivermectin to Prevent Disseminated Strongyloides Infection in Patients with COVID-19.* Science Briefs of the Ontario COVID-19 Science Advisory Table, 2(30). https://doi.org/10.47326/ocsat.2021.02.301.0
⁷⁴ *Regeneron's COVID-19 Response Efforts.* Regeneron. Retrieved December 24, 2021, from https://www.regeneron.com/covid19

⁷⁵ Morris, A. M., Andany, N., Bobos, P., Carlin, S., Ciccotelli, W., Graham, C. M., Kan, T., Langford, B. J., Leung, E., McElroy, R., Miller, K. J., Neil, U., Nott, C., Jüni, P., & Pai, M. (2021). *Evidence-Based Use of Therapeutics for Ambulatory Patients with COVID-19*. Science Briefs of the Ontario COVID-19 Science Advisory Table, 2(48). https://doi.org/10.47326/ocsat.2021.02.481.0

Pharmaceutical Companies

Andany has received funding for HIV research from Janssen, GlaxoSmithKline and Gilead Sciences. 76, 77, 78

Sunnybrook Health Sciences Centre

Andany is employed as an Infectious Diseases and HIV Specialist at Sunnybrook Health Sciences Centre. She works as Educational Lead, staff physician, and Affiliate Scientist, Evaluative Clinical Sciences, Integrated Community Program.⁷⁹ She participated in the centre's COVIDEO telehealth program.^{80,81}

Her relevant publications include:

- June 30, 2021: Patient perspectives on the implementation of routinised syphilis screening with HIV viral load testing: Qualitative process evaluation of the Enhanced Syphilis Screening Among HIV-positive Men trial.⁸²
 - Funded by a Canadian Institutes of Health Research (CIHR) Foundation award, the CIHR Canadian HIV Trials Network, a CIHR New Investigator Salary Award, Ontario HIV Treatment Network Endgame Leader Award, and a Non-Clinician Researcher award from the Department of Family and Community Medicine, Faculty of Medicine, University of Toronto.
- March 8, 2021: Diagnostic accuracy of subjective dyspnoea in detecting hypoxaemia among outpatients with COVID-19: a retrospective cohort study.⁸³

⁷⁶ Andany, N. (2021, August 23). Declaration of Interest. Ontario COVID-19 Science Advisory Table.
https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group Nisha-Andany 20210823.pdf

⁷⁷ Andany, N. (2021, May 25). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Nisha-Andany_20210525.pdf

⁷⁸ Andany, N. (2021, February 8). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Nisha-Andany.pdf

⁷⁹ Nisha Andany MD, MPH, FRCP(C). Sunnybrook Research Institute. Retrieved December 23, 2021, from https://archive.ph/oELd1
⁸⁰ Millar, S. (2020, May 11). Sunnybrook patients recovering at home from COVID-19 get advice, support from new virtual program. Sunnybrook Research Institute. https://archive.ph/sN4v1

⁸¹ Ogilvie, M. (2021, January 25). Canada's first COVID-19 patient was at Sunnybrook. Today his treatment would have been by video. The Toronto Star.

 $[\]frac{\text{https://www.thestar.com/news/gta/2021/01/25/canadas-first-covid-19-patient-was-at-sunnybrook-today-his-treatment-would-have-been-by-video.html}{}$

⁸² MacKinnon, K. R., Grewal, R., Tan, D. H., Rousseau, R., Maxwell, J., Walmsley, S., MacPherson, P. A., Rachlis, A., Andany, N., Mishra, S., Allen, V. G., & Burchell, A. N. (2021). *Patient perspectives on the implementation of routinised syphilis screening with HIV viral load testing: Qualitative process evaluation of the Enhanced Syphilis Screening Among HIV-positive Men trial.* BMC Health Services Research, 21(1). https://doi.org/10.1186/s12913-021-06602-1

⁸³ Berezin, L., Zhabokritsky, A., Andany, N., Chan, A. K., Estrada-Codecido, J., Gershon, A., Lam, P. W., Leis, J. A., MacPhee, S., Mubareka, S., Simor, A. E., & Daneman, N. (2021). *Diagnostic accuracy of subjective dyspnoea in detecting hypoxaemia among outpatients with COVID-19: a retrospective cohort study.* BMJ Open, 11(3), e046282. https://doi.org/10.1136/bmjopen-2020-046282

- October 2020: Pneumocystis jirovecii pneumonia prophylaxis in a 42-year-old woman on immunosuppressive therapy.⁸⁴
 - Andany discloses funding from Janssen, GlaxoSmithKline and Gilead Sciences for other HIV research.
- September 1, 2020: Home or Cabin: Community Care for Coronavirus Disease 201985
- May 23, 2020: A virtual care program for outpatients diagnosed with COVID-19: a feasibility study.⁸⁶
- January 2020: Prevalence and correlates of early-onset menopause among women living with HIV in Canada.⁸⁷
 - Funded by the Canadian Institutes of Health Research (CIHR), CIHR Canadian HIV
 Trials Network, Ontario HIV Treatment Network, the Academic Health Science
 Centres Alternative Funding Plans (AFP) Innovation Fund, and Fonds de
 Recherche du Québec—Santé.
 - Presented at the 7th International Workshop on HIV and Women in Seattle,
 Washington (February 11-12, 2017), funded by Gilead Sciences.⁸⁸
 - Also presented at the Conference on Retroviruses and Opportunistic Infections (February 13-16) in Seattle, funded by Merck, ViiV Healthcare, AbbVie, Hologic and Cepheid.⁸⁹
- Association between initial symptoms and subsequent hospitalization in outpatients with COVID-19: A cohort study.⁹⁰
 - Funded by the Sunnybrook COVID-19 Research Initiative.

University of Toronto

Adany is employed as Assistant Professor in the Department of Medicine at the University of Toronto.⁹¹

 ⁸⁴ Halani, S., Andany, N., & Shah, R. (2020). Pneumocystis jirovecii pneumonia prophylaxis in a 42-year-old woman on immunosuppressive therapy. Canadian Medical Association Journal, 192(43), E1306–E1308. https://doi.org/10.1503/cmaj.200846
 ⁸⁵ Andany, N., & Daneman, N. (2020). Home or Cabin: Community Care for Coronavirus Disease 2019. Chest, 158(3), 839–840. https://doi.org/10.1016/j.chest.2020.06.002

⁸⁶ Lam, P. W., Sehgal, P., Andany, N., Mubareka, S., Simor, A. E., Ozaldin, O., Leis, J. A., Daneman, N., & Chan, A. K. (2020). *A virtual care program for outpatients diagnosed with COVID-19: a feasibility study.* CMAJ Open, 8(2), E407–E413. https://doi.org/10.9778/cmajo.20200069

⁸⁷ Andany, N., Kaida, A., de Pokomandy, A., Yudin, M. H., Wang, L., Kennedy, V. L., Webster, K., & Loutfy, M. (2019). *Prevalence and correlates of early-onset menopause among women living with HIV in Canada*. Menopause, 27(1), 66–75. https://doi.org/10.1097/gme.000000000001423

⁸⁸ SUPPORT. Virology Education. Retrieved December 23, 2021, from https://archive.ph/I7XYf

⁸⁹ Funding Information. CROI Conference. Retrieved December 23, 2021, from https://www.croiconference.org/about/commercial-support/

⁹⁰ Zhabokritsky, A., Daneman, N., MacPhee, S., Estrada-Codecido, J., Santoro, A., Kit Chan, A., Wai-Hei Lam, P., Simor, A., Allen Leis, J., Mubareka, S., & Andany, N. (2021). *Association between initial symptoms and subsequent hospitalization in outpatients with COVID-19: A cohort study.* Official Journal of the Association of Medical Microbiology and Infectious Disease Canada, 6(4), 259–268. https://doi.org/10.3138/jammi-2021-0012

⁹¹ Nisha Andany. (2021). University of Toronto. https://facdir.deptmedicine.utoronto.ca/Detail.aspx?id=2830&showdivisiontitle=1&division_id=103

Pat Armstrong

Canadian Health Coalition

Armstrong is a member of the board for the Canadian Health Coalition, a lobbying organization interacting with governments to increase socialized healthcare in Canada. 92, 93 Armstrong notes that this is a potential conflict of interest in her disclosures to the Ontario COVID-19 Science Advisory Table.

Canadian Health Services Research Foundation

Armstrong held a Canada Health Services Research Foundation/Canadian Institute of Health Research Chair in Health Services.⁹⁴

Ontario COVID-19 Science Advisory Table

Armstrong sits on the Congregate Care Setting Working Group of the Ontario COVID-19 Science Advisory Table.⁹⁵

Royal Society of Canada

In 2011, Armstrong was elected as a Fellow to the Royal Society of Canada. 96

Social Sciences and Humanities Research Council

Armstrong received a grant from the Social Sciences and Humanities Research Council (SSHRC) to study families and COVID-19 in long-term care.⁸⁵

⁹² Armstrong, P. (2021). Declaration of Interest. Ontario COVID-19 Science Advisory Table (p. 1).
https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Congregate-Care-Setting-Working-Group_Pat-Armstrong_20210821.pdf

⁹³ Pat Armstrong. (2021, July 21). Canadian Health Coalition. https://www.healthcoalition.ca/team/pat-armstrong/

⁹⁴ Pat Armstrong. The Conversation. Retrieved January 21, 2022, from https://theconversation.com/profiles/pat-armstrong-524727

⁹⁵ About Us. Ontario COVID-19 Science Advisory Table. Retrieved December 24, 2021, from https://covid19-sciencetable.ca/about/#armstrong-pat

⁹⁶ Pat Armstrong. Canadian Scholars. Retrieved January 21, 2022, from https://archive.ph/M1fhA

York University

Armstrong is Distinguished Research Professor in the Department of Sociology at York University.

97 She is the principal investigator for the school's Re-imagining Long-Term Care project.

98

Publications

Books

Armstrong is the author, co-author, or editor of over 25 books.⁸⁹ While she does retain some royalties from her books, most of the money goes to charities.^{85, 99}

Research

- December 18, 2021: Excess Mortality in Long-Term Care Residents With and Without Personal Contact With Family or Friends During the COVID-19 Pandemic¹⁰⁰
 - Funded by the Institute for Clinical Evaluative Sciences (ICES), which is itself funded by the Ontario Ministry of Health and Long-Term Care. ICES' Board of Directors includes representatives from Ontario Health, Statistics Canada, University Health Network, Canadian Institute for Advanced Research (CIFAR), Hamilton Health Sciences, and the Vector Institute for Artificial intelligence.^{101, 102}

⁹⁷ Pat Armstrong. (2018, May 24). York University. https://profiles.laps.yorku.ca/profiles/patarmst/

⁹⁸ *Team – Re-imagining Long-term Residential Care.* York University. Retrieved December 24, 2021, from https://reltc.apps01.yorku.ca/our-team#principal-investigator

⁵⁹ Results for "au: Armstrong, Pat." WorldCat. Retrieved January 21, 2022, from https://www.worldcat.org/search?q=au%3A+Armstrong%2C+Pat.&qt=results_page

¹⁰⁰ Savage, R. D., Rochon, P. A., Na, Y., Strauss, R., Brown, K. A., Costa, A. P., Gill, S., Johnstone, J., Tanuseputro, P., Stall, N. M., & Armstrong, P. (2021). Excess Mortality in Long-Term Care Residents With and Without Personal Contact With Family or Friends During the COVID-19 Pandemic. Journal of the American Medical Directors Association, Online ahead of print. https://doi.org/10.1016/j.jamda.2021.12.015

Mark Daley Biography. ICES. Retrieved January 21, 2022, from https://www.ices.on.ca/About-ICES/Board-of-Directors/Bios/Mark-Daley-bio

¹⁰² Annual Report 2020/21 (p. 6). (2021). ICES.

Trevor Arnason

College Square Medical Clinic

Arnason practices medicine at College Square Medical Clinic in Ottawa, Ontario. 103

Government of Nova Scotia

Arnason previously worked as a Regional Medical Officer of Health in Halifax, Nova Scotia from 2016-2018,¹⁰⁴ where he worked on several health promotion initiatives and co-led responses to multiple vaccine preventable disease outbreaks - including one of the largest measles outbreaks in Canada in recent years.^{105, 106, 107}

Ontario COVID-19 Science Advisory Table

Arnason was a member of the Behavioural Science Working Group for the Ontario COVID-19 Science Advisory Table. He is no longer listed on the Table's website, though he submitted a disclosure form on February 12, 2021.⁹⁷

Ottawa Public Health

Arnason is employed as Associate Medical Officer of Health at Ottawa Public Health, where he has worked since January 2019.¹⁰⁸

COVID-19

In this position, Arnason has played a leadership role in Ontario's COVID-19 pandemic response. His salary increased by over \$100,000.00 CAD to \$234,252.18 in the first year of the crisis, up from \$129,035.90 in 2019.¹⁰⁹

¹⁰³ CPSO - Doctor Details. College of Physicians and Surgeons of Ontario. Retrieved January 22, 2022, from https://doctors.cpso.on.ca/DoctorDetails/Arnason-Trevor-Thor/0272892-95633

¹⁰⁴ Arnason, T. (2021). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest Behavioural-Science-Working-Group Trevor-Arna son.pdf

¹⁰⁵ Ronnie. (2021, April 22). Who's Behind The Ontario Science Table? A Look At Their Partners And Members. Canuck Law. https://archive.ph/w2lfw

Berry, S. (2017, March 29). Measles outbreak in Nova Scotia: what you need to know. CBC News. https://archive.ph/sMb1X

¹⁰⁷ Mehta, D. (2017, February 24). Canadians urged to update vaccines after mumps, measles cases reported. The Globe and Mail. https://archive.ph/4suey

¹⁰⁸ Trevor Arnason. LinkedIn. Retrieved January 21, 2022, from https://www.linkedin.com/in/trevor-arnason-0252a4b5/

¹⁰⁹ Trevor Arnason salary at City Of Ottawa. SunshineListStats. Retrieved January 21, 2022, from https://archive.ph/yaOJx

He authored a memo to Ottawa physicians, specialists and nurse practitioners notifying them that patients with medical exemptions to the COVID-19 vaccines will be required to receive and use a provincially-issued QR code "to access certain business and settings." ¹¹⁰

This could be described as a vaccine passport for the "unvaccinated", lending credence to the notion that COVID-19 policies are geared in part towards the institutionalization of digital identification. Shockingly, Arnason's letter concludes by directing physicians and nurse practitioners for "referral and specialist consultation support" to the Canadian Immunization Research Network (CIRN), which is funded by COVID-19 vaccine manufacturers Pfizer, GlaxoSmithKline, VBI Vaccines, Novartis and Sanofi, as well as the Public Health Agency of Canada and the Canadian Institutes of Health Research. 111, 112

In January 2021, Arnason appeared in a commercial for COVID-19 vaccines in his position at AMOH.¹¹³ In an interview with CTV News, he stated that his region would be setting up vaccination clinics in schools, like with previous school vaccination programs. He also said "it's important that all residents receive the COVID-19 vaccine, including children."¹¹⁴

In December 2021, Arnason retweeted U.S. Center for Disease Control and Prevention Director Rochelle Wolensky's false statement that the COVID-19 vaccines "have undergone the most comprehensive & intense safety monitoring system in U.S. history. To date, no serious safety concerns have been identified." ¹¹⁵

Vaccines

He is also the author of a template for suspending students from school due to "incomplete vaccination record", dated 2019-2020. 116

¹¹⁰ Goulet, M., & Arnason, T. (2022, January 11). *Medical Exemptions to the COVID-19 Vaccine: How to submit forms.* Ottawa Public Health. https://archive.ph/r58zF

¹¹¹ Partners. (2013, January 30). Canadian Immunization Research Network. https://archive.ph/durb0

¹¹² Canadian Immunization Research Network (CIRN). *CIRN Annual Report 2019–2020*. Retrieved December 22, 2021, from https://www.campfire.wiki/lib/exe/fetch.php?media=ar.2019-20.final_.pdf

¹¹³ Ottawa Public Health. (2021, January 27). Why get vaccinated against COVID-19? Dr. Trevor Arnason, Associate Medical Officer of Health. explains... Facebook.

https://www.facebook.com/ottawahealth/videos/why-get-vaccinated-against-covid-19-dr-trevor-arnason-associate-medical-officer-/682 977669047955/

¹¹⁴ Pringle, J. (2021, May 5). "Right in our wheelhouse": Ottawa Public Health planning to administer COVID-19 vaccine to children 12 and up. CTV News; Bell Media. https://archive.ph/9xABq

¹¹⁵ Wolensky, R. (2021, December 10). #COVID19 vaccines are safe for children 5-11. They have undergone the most comprehensive & intense safety monitoring system in U.S. history. To date, no serious safety concerns have been identified. Vaccination is the best way to protect children from COVID-19. [Tweet]. Twitter. https://archive.ph/jcebT

¹¹⁶ Arnason, T. (2019). "Notice Mail Out (Issue) Date" Dear Parent/Guardian, Re: Order for Suspension from School. Parenting in Ottawa. Ottawa Public Health.

 $[\]underline{\text{https://www.parentinginottawa.ca/en/children/resources/documents/English_School_Suspension_Package_ENG_2019_Final-AODA.p} \\ \text{df}$

University of Ottawa

Arnason is an Adjunct Professor at the University of Ottawa. 117

Education

Arnason received his MD from the University of Toronto, and did a combined residency in Public Health and Preventive Medicine and Family Medicine at the University of Ottawa. 98, 101

Media

Arnason appeared on an episode of CANVax's Emerging Topics podcast to discuss how the Children's Immunization Clinic was created and implemented in the beginning weeks of the COVID-19 pandemic, ensuring infants would still receive their routine vaccinations soon after birth.¹¹⁸

The episode description includes a link to CHEO which is funded by Canadian National Railway (whose major shareholder is Bill Gates), Ericsson, McDonald's, and the Ottawa Police Service.¹¹⁹

¹¹⁷ Arnason, Trevor. Department of Epidemiology. Retrieved January 21, 2022, from https://archive.ph/R2USU

¹¹⁸ Emerging Topics: Ep. 8: Children's Immunization Clinic in Ottawa – A collaboration between healthcare partners to provide infant vaccination during COVID-19. (2020, July 21). Libsyn; CANVax.

 $[\]frac{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-to-provide-infant-vaccination-during-covid-19}{\text{https://emergingtopics.libsyn.com/childrens-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-collaboration-between-healthcare-partners-immunization-clinic-in-ottawa-a-$

¹¹⁹ Sponsors. CN Cycle for CHEO. Retrieved January 21, 2022, from https://archive.ph/3oMAi

Adalsteinn Brown

Dr. Adalsteinn Brown, DPhil, AB is the Dean of the Dalla Lana School of Public Health at the University of Toronto, and the Co-chair of the Ontario COVID-19 Science Advisory Table.

He grew up in London, Ontario, and moved to New York in 1996 to co-found a healthcare consulting firm with offices on Park Avenue.¹²⁰

Due to his high-level positions and affiliations (particularly as Dean of the DLSPH), Brown "would effectively be the boss, and hold power over" several current Medical Officers of Health in Ontario including Eileen de Villa, Barbara Yaffe, Lawrence Loh, Vinita Dubey, Lisa Berger, and Avis Lynn Noseworthy.¹²¹

Caldwell Partners International

Brown was named one of Canada's Top 40 under 40 for his work on healthcare performance. selected by a panel of 29 business and community leaders assembled by Caldwell Partners International, an executive search firm in Canada. Brown was 32 years old at the time.

"Caldwell compiled a preliminary list of candidates from more than 1,400 nominations, a record. The panel then rated the finalists on six criteria: vision and leadership, innovation and achievement, community involvement, impact and strategy for growth." ¹¹³

The National Board of Directors that selected him included representatives from the Canadian Institute of Health Research, Bell Canada Enterprises, National Bank of Canada, Astral Media (absorbed by Bell Media), the University of Toronto, St. Michael's Hospital, and the Government of British Columbia.

¹²⁰ Mayer, A., McKinnon, M., Shulgan, C., & Smith, M. (2003, April 25). *top forty/under forty.* The Globe and Mail. https://archive.ph/PGKaF

¹²¹ Ronnie. (2021, May 15). Meet Adalsteinn Brown: Swamp King; OST; Dean Of DLSPH; Ministry Of Health; Ford Operative; Premier's Council. Canuck Law. https://archive.ph/AeGUo

CorHealth Ontario

In his U of T financial disclosures for 2018-2019 and his OST forms, Brown reports receiving \$25,000.00 from CorHealth (since absorbed by Ontario Health) for "consulting on information management requirements." 122, 123

Hospital Report Project

Brown returned to Ontario in 1998 to join the Hospital Report Project, where he completed reports until 2001.¹²⁴ The 1998 and 1999 reports were funded by the Ontario Hospital Association, and the 2001 report was prepared by the Canadian Institute for Health Information (CIHI) with "methodological advice from researchers at the University of Toronto."

The project measured financial performance, patient satisfaction, clinical outcomes, management investment and innovation in Ontario hospitals.

In his 2001 profile, Brown lists his research interests to include "the cost-effectiveness of emerging technologies and the effective communication of performance information to consumers." He states that he had "worked with a wide range of private sector clients in Canada, the U.S., and the Far East on strategy in health care, health care financing, and quality improvement topics."

Institute for Clinical Evaluative Sciences

Brown served as an Adjunct Scientist at the Institute for Clinical Evaluative Sciences (ICES) in Ontario. 125

Ontario COVID-19 Science Advisory Table

Brown is the Co-chair of the Ontario COVID-19 Science Advisory Table. Despite the Table's claims of independence, a University of Toronto profile claims Brown "has worked collaboratively with the Ontario Premier and his cabinet on resilience and recovery measures and efforts." 127

¹²² Adalsteinn Steini Brown | Institute of Health Policy, Management and Evaluation. Dalla Lana School of Public Health; University of Toronto. Retrieved January 22, 2022, from https://archive.ph/hR1oD

¹²³ Brown, A. (2021). *Declaration of Interest.*

https://covid19-sciencetable.ca/wp-content/uploads/2020/08/Declaration-of-Interest Science-Table Adalsteinn-Brown 20211014.pdf 124 The Hospital Report 2001 Series. (2001, July 26). Hospital Reports Project; University of Toronto.

https://web.archive.org/web/20010809234902/http://www.hospitalreport.ca/

¹²⁵ Key Researcher Profiles. (2001, August 22). Hospital Report Project; University of Toronto. https://web.archive.org/web/20010822143907/http://www.hospitalreport.ca/ResearcherProfilesPg4.htm

¹²⁶ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 21, 2022, from https://covid19-sciencetable.ca/about/#brown-adalsteinn

¹²⁷ Institute for Pandemics. Dalla Lana School of Public Health; University of Toronto. Retrieved January 21, 2022, from https://archive.ph/Lham0

Omicron

In mid-December, Brown stated that "an accelerated booster campaign doesn't go far enough to keep the hospital system from becoming overwhelmed" by the Omicron Variant of SARS-CoV-2. He contradicted himself multiple times when attempting to claim the COVID-19 vaccine "booster shots" were effective, while also claiming two doses also offered protection. He also advised that families should only "associate with" people who are vaccinated.¹²⁸

However, as noted by Canuck Law, "all of these measures to 'prevent hospitals from being overwhelmed' [are] based on false pretenses, since Brown's recent work shows he ALREADY KNEW there was a capacity problem in Ontario hospitals."

Ontario Health

Brown is on the Board of Directors of Ontario Health. 129

Ontario Ministry of Health and Long-term Care

Brown is the former head of strategy and assistant to the Deputy Minister for the Ontario Ministry of Health and Long-term Care. 130

Ontario Ministry of Research and Innovation

Brown is the former head of policy and science for the Ontario Ministry of Research and Innovation.

Province of Ontario

Brown has held senior leadership positions in policy and strategy within the Ontario government.¹²²

He is also on the Premier's Council, which was created in 2018 to "provide the Premier of Ontario and the Deputy Premier and Minister of Health and Long-Term Care with strategic priorities and actions". He was on the team that authored a report determining that Ontario's hospital system was already under strain well before COVID-19 or the "pandemic of the unvaccinated". Canuck

¹²⁸ The Canadian Press. (2021, December 16). Experts say circuit breaker necessary to blunt Omicron's effect in Ontario. MSN News. https://archive.ph/fEPuK

¹²⁹ Board of Directors. Ontario Health. Retrieved May 15, 2021, from https://archive.ph/vQXKp

¹³⁰ Hayeems, R. Z., Moore Hepburn, C., Chakraborty, P., Odame, I., Clarke, J., Miller, F. A., & Brown, A. D. (2017). *Managing sickle cell carrier results generated through newborn screening in Ontario: a precedent-setting policy story.* Genetics in Medicine, 19(6), 625–627. https://doi.org/10.1038/gim.2016.162

¹³¹ Hallway Health Care: A System Under Strain – First Interim Report from the Premier's Council on Improving Healthcare and Ending Hallway Medicine - Public Information - MOHLTC. (2018). Ontario Health. https://archive.ph/Srsll

Law notes, "Even back in 2018, 2019, the Premier's Council openly admitted that the Ontario Health Care system was overburdened, and was unable to meet current needs, let alone projected increases. Adalsteinn Brown is on that Council. When he headed up [the] Ontario Science Table the following year, did he simply forget his own report?" 114

St. Michael's Hospital

Brown is a scientist at the Li Ka Shing Knowledge Institute, St. Michael's Hospital. 115

University of Toronto

Brown is the Dean of the Dalla Lana School of Public Health at the University of Toronto. Prior to becoming Dean, he was the Director of the Institute of Health Policy, Management and Evaluation and the Dalla Lana Chair of Public Health Policy also at the University.

He is also the director of the Institute for Pandemics, which he said will "ramp up research and training for more agile, equitable preparation, resilience and recovery from pandemics." ^{120, 132}

Massey College

Brown is a Senior Fellow at Massey College.

The school is funded by Canadian National Railway (a Bill Gates company), CBC/Radio Canada, the Canadian Institute for Advanced Research (CIFAR) (funded by Microsoft, RBC (Royal Bank of Canada), BMO Financial Group, CIBC, Facebook, General Motors, Ivey Foundation, Manulife, Scotiabank, TD Bank Group, and the Hamilton Community Foundation), Dalhousie University, Global Affairs Canada, Brian Hodges, Innovation, Science and Economic Development Canada (ISED), Department of Public Safety and Emergency Preparedness (the national security arm of the Canadian government), University of Toronto, the Privy Council Office, United Way, Environment Canada, the Massey Foundation, Suncor Energy, TD Bank Group, the Toronto Foundation, University of Alberta, Bell Canada, the Rockefeller Foundation, CIBC, the Ford Foundation, the Government of Japan, Green Shield Canada, the Heart and Stroke Foundation, IBM, Ipsos, Lionsgate, the Mastercard Foundation, the Andrew W. Mellon Foundation, Novo Nordisk, the Rogers Foundation, and many others. 134, 135, 136, 137

¹³² Lavery, I. (2020, August 19). University of Toronto launches new Institute for Pandemics | News. Daily Hive. https://archive.ph/vDfcB

¹³³ Supporters. Retrieved January 22, 2022, from https://archive.ph/wjiET

¹³⁴ Massey News. (2017). Massey College.

 $[\]underline{\text{https://www.masseycollege.ca/wp-content/uploads/2020/11/Massey-News-2016-2017-v7-web150-hyperlinked.pdf}}$

¹³⁵ Chancellors' Circle of Benefactors. University of Toronto. Retrieved January 22, 2022, from https://www.chancellorscircle.utoronto.ca/members/

¹³⁶ Massey News. (2018). Massey College. https://www.masseycollege.ca/wp-content/uploads/2020/11/Massey-News-2017-2018.pdf Massey News. (2019). Massey College.

https://www.masseycollege.ca/wp-content/uploads/2020/11/MASSEY-NEWS-2018-2019-web-linked.pdf

University of Western Ontario

Brown has been an Honorary Lecturer in the Department of Epidemiology and Biostatistics and an Instructor in the Department of Family Medicine at the University of Western Ontario. 118

Workplace Safety and Insurance Board

Brown was paid by the Ontario Workplace Safety and Insurance Board (WSIB) as a member on their COVID-19 Expert Committee.¹¹⁶

Education

He received his undergraduate degree in government from Harvard University and his doctorate from the University of Oxford, where he was a Rhodes Scholar.

During his time working as the principal investigator on the Hospital Report Project with the University of Toronto, Brown was completing his doctorate in the Faculty of Clinical Medicine at Oxford on differences in hospital utilization and health care system performance in the UK and Canada.¹¹⁸

Publications

- December 5, 2018: Public health emergency preparedness: a framework to promote resilience¹³⁸
 - Co-authored by Bonnie Henry (who would act as Provincial Health Officer for British Columbia, Canada during the COVID-19 pandemic), and Brian Schwartz, Brown's OST Co-Chair
 - Funded by the Canadian Institutes of Health Research (CIHR)
- October 2018: Development of Enriched Core Competencies for Health Services and Policy Research¹³⁹
 - Funded by the Canadian Institutes of Health Research's Institute of Health Services and Policy Research (CIHR-IHSPR) via its Institute Strategic Grant and by a CIHR-IHSPR Institute Community Support Grant held by Dr. Adalsteinn Brown and Dr. Stephen Bornstein

Khan, Y., O'Sullivan, T., Brown, A., Tracey, S., Gibson, J., Généreux, M., Henry, B., & Schwartz, B. (2018). Public health emergency preparedness: a framework to promote resilience. BMC Public Health, 18(1). https://doi.org/10.1186/s12889-018-6250-7
 Bornstein, S., Heritage, M., Chudak, A., Tamblyn, R., McMahon, M., & Brown, A. D. (2018). Development of Enriched Core Competencies for Health Services and Policy Research. Health Services Research, 53, 4004–4023.
 https://doi.org/10.1111/1475-6773.12847

- February 20, 2017: Evaluating investment in quality improvement capacity building: a systematic review¹⁴⁰
 - o Funded by Improving & Driving Excellence Across Sectors (IDEAS Initiative), which is funded by the Ontario Ministry of Health and Long-Term Care and partnered with the University of Toronto, Health Quality Ontario (HQO), Institute for Clinical Evaluative Sciences (ICES), McMaster University, Northern Ontario School of Medicine, Queen's University, University of Ottawa, and Western University¹⁴¹

¹⁴⁰ Mery, G., Dobrow, M. J., Baker, G. R., Im, J., & Brown, A. (2017). Evaluating investment in quality improvement capacity building: a systematic review. BMJ Open, 7(2), e012431. https://doi.org/10.1136/bmjopen-2016-012431

141 About IDEAS. IDEAS. Retrieved January 22, 2022, from https://archive.ph/Xx24h

Vinita Dubey

Dr. Vinita Dubey is an Adjunct Professor at the Dalla Lana School of Public Health at the University of Toronto with focus on vaccines, Associate Medical Officer of Health for Toronto Public Health, Member of the National Advisory Committee on Immunization (NACI), and Member of the Ontario Immunization Advisory Committee (OIAC).

National Advisory Committee on Immunization

As a member of the National Advisory Committee on Immunization (NACI), Dubey is involved in the Federal Government of Canada's decision making process regarding COVID-19 vaccine policies.¹⁴² She receives compensation from NACI in the form of travel expenses.^{143, 144}

Ontario COVID-19 Science Advisory Table

Dubey sits on the Behavioural Science Working Group on the Ontario COVID-19 Science Advisory Table. She and other behavioural scientists were selected "based on their specific expertise in behaviour change, spanning behavioural medicine, health, clinical and social psychology, behavioural economics, and implementation science. Public Health leaders joining the group were invited based on their expertise in promoting health-protective behaviours and vaccination."

Indeed, Dubey co-authored the October 26, 2021 Science Brief titled "Behavioural Science-Informed Strategies for Increasing COVID-19 Vaccine Uptake in Children and Youth", advocating for several psychological influence strategies to encourage the largest possible

¹⁴² National Advisory Committee on Immunization (NACI). (2021, October). *Advisory Committee Statement (ACS): Recommendations on the use of COVID-19 vaccines*. Public Health Agency of Canada.

 $[\]frac{\text{https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/r}{ecommendations-use-covid-19-vaccines/recommendations-use-covid-19-vaccines-en.pdf}$

¹⁴³ Dubey, V. (2021, October 14). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. Retrieved November 3, 2021, from https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Behavioural-Science-Working-Group_Vanita-Dubey_20211014.pdf

ey_20211014.pdf

144 Dubey, V. (2021, August 23). Declaration of Interest. Ontario COVID-19 Science Advisory Table. Retrieved November 3, 2021, from https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Behavioural-Science-Working-Group_Vinita-Dubey v_20210823.pdf

T45 Ontario COVID-19 Science Advisory Table. (2021, April 13). *About Us.* Retrieved November 3, 2021, from https://covid19-sciencetable.ca/about/

number of children 5-11 to "accept" a COVID-19 injection.¹⁴⁶ Her co-authors on that paper include Justin Presseau, Upton Allen, and Trevor Arnason.

Ontario Immunization Advisory Committee

Dubey is a member of the Ontario Immunization Advisory Committee (OIAC), formed in August 2021 at the request of Ontario's Chief Medical Officer of Health Dr. Kieran Moore. "The focus of the Committee's work is on publicly-funded vaccines and immunization programs in Ontario, including COVID-19, and those under consideration for new programming." The committee operates under Public Health Ontario, and includes fellow OST members Jessica Hopkins, Allison McGeer, and Justin Presseau.

Toronto Public Health

Dubey has been employed by Toronto Public Health as Associate Medical Officer of Health since 2006, in Communicable Diseases. She works under Eileen De Villa, who has familial financial ties to pharmaceutical companies including Pfizer, AstraZeneca, Bayer, Eli Lilly, HLS Therapeutics, Novartis, Sanofi and Servier. Sho, 151

Dubey has appeared on public platforms multiple times to advocate for restrictive public health measures and COVID-19 vaccine products, as well as vaccine passports. She also warned against treating COVID-19.

• In June 2021, she delivered a presentation on behalf of Toronto Public Health titled "COVID-19 Vaccines: Building Trust and Confidence". The presentation specifically claimed the shots are safe and important "for those with autism, ADHD, heart or kidney conditions, diabetes, high blood pressure, auto-immune disorders, asthma, allergies and pregnant or breastfeeding," as well as people who have already recovered from COVID-19, children aged 12 and older, and "Black, Indigenous and People of Colour

¹⁴⁶ Shapiro, G. K., Presseau, J., Weerasinghe, A., Allen, U., Arnason, T., Bodmer, N. S., Born, K. B., Buchan, J. L., Burns, R., Corace, K. M., Dubey, V., Evans, G. A., Fabrigar, L. R., Grimshaw, J. M., Maguire, J. L., Manuel, D. G., Morris, S. K., Mosher, R., Orkin, J., . . . Desveaux, L. (2021). *Behavioural Science-Informed Strategies for Increasing COVID-19 Vaccine Uptake in Children and Youth.* Science Briefs. Published. https://doi.org/10.47326/ocsat.2021.02.50.1.0

¹⁴⁷ Public Health Ontario. *Ontario Immunization Advisory Committee (OIAC)*. Retrieved November 9, 2021, from https://www.publichealthontario.ca/en/about/our-organization/external-advisory-committees/oiac

¹⁴⁸ Dalla Lana School of Public Health. (2016, September 26). *Dubey, Vinita*. Retrieved November 3, 2021, from https://www.dlsph.utoronto.ca/faculty-profile/dubey-vinita/

¹⁴⁹ Verma, S., MD, PhD, FRCSC, FAHA, Choi, R., MD, FRCPC, Bucci, C., PharmD, & Gupta, A., MD, FRCPC. (2020, June 12). *Navigating Vascular Protective Strategies in HighRisk Patients During the Current Era: Practical Applications [Slides]*. CardioVascUpdate. https://cardiovascupdate.ca/files/2020/CV%20Update%20Symposium-Presentation.pdf

¹⁵⁰ Staley, G. (2021, March 4). *Toronto's Medical Officer, Dr. Eileen De Villa's husband has financial relationships with major vaccine manufacturers – is this a conflict of interest?* Diverge Media. Retrieved November 2, 2021, from https://divergemedia.ca/2021/03/04/torontos-medical-officer-dr-eileen-de-villas-husband-has-financial-relationships-with-major-vaccin

e-manufacturers-is-this-a-conflict-of-interest/

151 McGovern, C. (2021, March 8). Toronto lockdown czar's husband has 'financial ties' to Pfizer, AstraZeneca. LifeSiteNews. Retrieved November 2, 2021, from https://www.lifesitenews.com/news/toronto-lockdown-czars-husband-has-financial-ties-to-pfizer-astrazeneca/

- (BIPOC) communities". She also advocates for people to use "Fact Checkers" to confirm information around COVID-19 vaccines.¹⁵²
- In August 2021, Dubey appeared in her role as Associate Medical Officer of Health for a "Coronavirus Q&A" on CityNews' YouTube channel. A commenter noted that her focus on "behaviour change" and "vaccine hesitancy" was concerning.¹⁵³
- She appeared again on a CityNews video published October 20, 2021 called "Ask Me Anything with Toronto's Assoc. Medical Officer of Health, Dr. Vinita Dubey". When asked about therapeutics to treat COVID-19 as opposed to relying solely on vaccination, Dubey stated that she "definitely [does] not recommend Ivermectin" as there is "no evidence that some of those drugs like Ivermectin help to treat Covid", and that "it can be a very dangerous drug when not used properly." 154
- One week later, she reappeared for a similarly titled video published October 27, 2021 on CityNews' YouTube channel. In this video, she asserted that Ontario would not be recognizing any religious exemptions to the vaccine passport program, which the interviewer Dilshad Burman described as "wonderful".¹⁵⁵

University of Toronto

Dalla Lana School of Public Health

Dubey is an Adjunct Professor at the Dalla Lana School of Public Health at the University of Toronto. Her research interests are "Immunization and Vaccine Preventable Diseases," and her current research Projects as of November 2021 are "HPV school-based vaccination implementation", "Vaccine Storage and Handling", "Local vaccination Coverage rates", and "Vaccine hesitancy". 156

HELPinKids&Adults

She is also a member of the HELPinKids&Adults team, a U of T-hosted group that advises medical practitioners and institutions on reducing pain during vaccination. Their partners include the Canadian Nursing Coalition for Immunization (CNCI), Canadian Pharmacists Association (CPA), Canadian Public Health Association (CPHA), College of Family Physicians of Canada (CFPC), Immunize Canada, Canadian Center for Vaccinology, and the BC Centre for Disease Control

¹⁵² Dubey, V. (2021, June). *COVID-19 Vaccines: Building Trust and Confidence [Slides]*. Public Health Toronto. https://www.toronto.ca/wp-content/uploads/2021/06/9073-Comm-AbassadorsJune-2021.pdf

¹⁵³ City News [CityNews]. (2021, August 11). 12:30 p.m. CORONAVIRUS Q&A with Dr. Vinita Dubey [Video]. YouTube. https://www.youtube.com/watch?v=RY3R-fwKRt4

¹⁵⁴ City News [CityNews]. (2021, October 20). Ask Me Anything with Toronto's Assoc. Medical Officer of Health, Dr. Vinita Dubey (Oct. 13, 2021) [Video]. YouTube. https://www.youtube.com/watch?v=wjMGT8Oq6w4

¹⁵⁵ City News [CityNews]. (2021, October 27). *Ask Me Anything with Toronto's Assoc. Medical Officer of Health, Dr. Vinita Dubey (Oct. 27. 2021) [Video].* YouTube. https://www.youtube.com/watch?v=wBb539PHIFU

¹⁵⁶ Dubey, Vinita. Dalla Lana School of Public Health; University of Toronto. Retrieved January 5, 2022, from https://archive.ph/gvvkW

(BCCDC).¹⁵⁷ The group is also associated with the World Health Organization (WHO), the Brighton Collaboration, the Public Health Agency of Canada (PHAC), CANVax, Kids Boost Immunity (funded by Pfizer, Merck, Sanofi, GlaxoSmithKline, CANImmunize and others).

Publications

Dubey's relevant research publications discussing vaccine hesitancy, uptake strategies and conflicts of interest include:

- March 2, 2021: Is 'conflict of interest' a Misnomer? Managing interests in immunization research and evaluation. 158
- July 9, 2020: "It takes time to build trust": a survey Ontario's school-based HPV immunization program ten years post-implementation.
 - Funded by a grant from the Canadian Immunization Research Network, which is itself funded by Pfizer, Sanofi, GlaxoSmithKline, VBI Vaccines, and Novartis, as well as the Public Health Agency of Canada and the Canadian Institutes of Health Research^{104, 105}
- May 21, 2019: Characteristics of immunized and un-immunized students, including non-medical exemptions, in Ontario, Canada: 2016–2017 school year.¹⁶⁰
 - Funded by Public Health Ontario
- March 2019: Addressing vaccine hesitancy: Clinical guidance for primary care physicians working with parents.¹⁶¹
- 2009: Psychological interventions for reducing pain and distress during routine childhood immunizations: a systematic review.¹⁶²
 - Funded by the Canadian Institutes of Health Research (CIHR)
- March 23, 2016: Exposure-based Interventions for the management of individuals with high levels of needle fear across the lifespan: a clinical practice guideline and call for further research.¹⁶³

¹⁵⁷ HELPinKids&Adults. (2019). About Us. University of Toronto. https://archive.ph/9NCqH

¹⁵⁸ McClymont, E., Brophy, J., Dubey, V., Kwong, J., Meyer, S., Crowcroft, N., Halperin, S., MacDonald, S., Simmons, K., Top, K., Ward, B., & Sadarangani, M. (2021). *Is "conflict of interest" a Misnomer? Managing interests in immunization research and evaluation.* Human Vaccines & Immunotherapeutics, 1–6. https://doi.org/10.1080/21645515.2021.1879580

¹⁵⁹ Dubé, E., Wilson, S., Gagnon, D., Deeks, S. L., & Dubey, V. (2020). "It takes time to build trust": a survey Ontario's school-based HPV immunization program ten years post-implementation. Human Vaccines & Immunotherapeutics, 1–6. https://doi.org/10.1080/21645515.2020.1775456

¹⁶⁰ Wilson, S. E., Murray, J., Bunko, A., Johnson, S., Buchan, S. A., Crowcroft, N. S., Dubey, V., Loh, L. C., MacLeod, M., Taylor, C., & Deeks, S. L. (2019). *Characteristics of immunized and un-immunized students, including non-medical exemptions, in Ontario, Canada: 2016–2017 school year.* Vaccine, 37(23), 3123–3132. https://doi.org/10.1016/j.yaccine.2019.04.033

¹⁶¹ Shen, S. C., & Dubey, V. (2019). Addressing vaccine hesitancy: Clinical guidance for primary care physicians working with parents. Canadian Family Physician Médecin de Famille Canadien, 65(3), 175–181. https://pubmed.ncbi.nlm.nih.gov/30867173/

¹⁶² Chambers, C. T., Taddio, A., Uman, L. S., & McMurtry, C. Meghan. (2009). *Psychological interventions for reducing pain and distress during routine childhood immunizations: A systematic review.* Clinical Therapeutics, 31(Supplement B), S77–S103. https://doi.org/10.1016/j.clinthera.2009.07.023

¹⁶³ McMurtry, C. M., Taddio, A., Noel, M., Antony, M. M., Chambers, C. T., Asmundson, G. J. G., Pillai Riddell, R., Shah, V., MacDonald, N. E., Rogers, J., Bucci, L. M., Mousmanis, P., Lang, E., Halperin, S., Bowles, S., Halpert, C., Ipp, M., Rieder, M. J., Robson, K., & Uleryk, E. (2016). Exposure-based Interventions for the management of individuals with high levels of needle fear across the lifespan: a clinical

- Endorsed/supported by:
 - Canadian Public Health Association (CPHA), which is itself funded by Pfizer, Moderna, AstraZeneca, Merck, Johnson & Johnson, Sanofi, Seqirus, VBI Vaccines, GlaxoSmithKline and various others;
 - Immunize Canada, which is itself sponsored by Pfizer, Moderna, Merck, GlaxoSmithKline, Sanofi and Seqirus;¹⁶⁴
 - Canadian Center for Vaccinology, which is running clinical trials for COVID-19 vaccine products by Moderna, VBI Vaccines, Pfizer and AstraZeneca, as well as other COVID-related studies with Sinai Health System, Dalhousie University and other pro-vaccination entities.
- 2011: Practices and Perceptions Regarding Pain and Pain Management during Routine Childhood Immunizations: Findings from a Focus-Group Study with Nurses Working at Toronto Public Health. Ontario. 165

practice guideline and call for further research. Cognitive Behaviour Therapy, 45(3), 217–235. https://doi.org/10.1080/16506073.2016.1157204

Member Organizations (2021, October 18). Immunize Canada. https://immunize.ca/member-organizations

¹⁶⁵ Kikuta, A., Gardezi, F., Dubey, V., & Taddio, A. (2011). *Practices and Perceptions Regarding Pain and Pain Management during Routine Childhood Immunizations: Findings from a Focus-Group Study with Nurses Working at Toronto Public Health, Ontario.* Canadian Journal of Infectious Diseases and Medical Microbiology, 22(2), 43–48. https://doi.org/10.1155/2011/381864

David Fisman

David N. Fisman is a Canadian professor of epidemiology, internist and public health official in Toronto, Ontario. He is employed at the University of Toronto, and is a practicing physician within the University Health Network and Toronto East Health Network.

He was a member of the Ontario COVID-19 Science Advisory Table until his resignation in August 2021. He came under fire related to an undisclosed conflict of interest regarding school closures. He has received funds from AstraZeneca and Pfizer related to COVID-19.

Education

Fisman attended Western University, then the Harvard University School of Public Health for his Master of Public Health. 166

Canadian Association of Alternative Securities and Assets

Fisman has been a paid speaker at events for Canadian Association of Alternative Securities and Assets.¹⁶⁷

City of Hamilton

Fisman was appointed in 2001 as Associate Medical Officer of Health for the City of Hamilton, Ontario in the Department of Public Health.¹⁶⁸

Ecojustice

Fisman has acted as a pro bono advisor to environmental law charity Ecojustice. 160

Elementary Teachers' Federation of Ontario

The Toronto Sun reported that Fisman was retained by the Elementary Teachers' Federation of Ontario to provide an opposing opinion on school reopenings in a document dated September 2020. Fisman served on the science table at the same time. It's a situation that one leading

¹⁶⁶ David Fisman. LinkedIn. Retrieved January 23, 2022, from https://www.linkedin.com/in/david-fisman-465a243/

¹⁶⁷ Fisman, D. (2021). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table.

https://covid19-sciencetable.ca/wp-content/uploads/2020/10/Declaration-of-Interest_Science-Table_David-Fisman2.pdf

¹⁶⁸ Priel, J.-A. (2001, June 25). *Appointment of Associate Medical Officer of Health (SPH01019)*. City of Hamilton. http://www2.hamilton.ca/Hamilton.Portal/Inc/PortalPDFs/ClerkPDFs/committee-of-the-whole/2001/jul10/SPH01019.pdf

expert says is a potential conflict of interest and Ontario Premier Doug Ford's office calls "deeply concerning."

"Where a person receives payment for speaking on behalf of a special interest group, it would almost certainly be appropriate to declare this as a potential conflict of interest when working in roles that are even slightly related," explained Dr. Euzebiusz Jamrozik, from the bioethics research centre at Oxford University, in an email to the Sun.¹⁶⁹

This conflicted affiliation is further concerning because the Ontario Teachers' Pension Plan (with which the ETFO is surely associated) is a member organization of the World Economic Forum, and holds financial stakes in several companies that benefit financially from the maintaining of online learning and mandatory masking and vaccination policies. Those companies include Mastercard, BlackRock, Blackstone, 3M (who manufactures masks), Abbott, Johnson & Johnson, and many others.

National Collaborating Centre for Infectious Diseases

Fisman is a partner at the National Collaborating Centre for Infectious Diseases (NCCID).¹⁷³

Ontario COVID-19 Science Advisory Table

Fisman was a member of the Ontario COVID-19 Science Advisory Table, until he resigned in August 2021.¹⁷⁴ The reason for his resignation was allegedly that the group was sitting on data that predicted "a grim Fall" for 2021, and that politics were influencing decision making as well as the way in which information was shared with the public.¹⁷⁵

Ontario Medical Association

Fisman is a member of the Ontario Medical Association Speakers Bureau, where he can be hired (and paid) to speak about infectious diseases, public health and epidemiology. Titles of his various presentations include "Infectious Diseases and Climate Change: What's the Connection?",

¹⁶⁹ Furey, A. (2021, January 26). Science table member paid by teacher union for arguing against school reopenings. Toronto Sun. https://archive.ph/pXWkP

¹⁷⁰ Ontario Teachers' Pension Plan. World Economic Forum. Retrieved January 20, 2022, from https://archive.ph/arl01

¹⁷¹ Ronnie. (2021, March 19). *FCLT Global; World Economic Forum; CPPIB; Ontario Teachers*. Canuck Law. https://canucklaw.ca/fclt-global-world-economic-forum-cppib-ontario-teachers/

¹⁷² Ontario Teachers Pension Plan Writ of Memorandus. (2021, September 10). Peoples of the Salmon. https://peoplesofthesalmon.net/files/ONTARIO-TEACHERS-PENSION-PLAN-WRIT-OF-MANDAMUS.pdf

¹⁷³ David Fisman. (2015, March 29). National Collaborating Centre for Infectious Diseases. https://archive.ph/KPTlo

¹⁷⁴ DeClerq, K. (2021, August 23). Ontario COVID-19 science table member resigns, alleges that modelling data "projects a grim fall." CTV News Toronto. https://archive.ph/y17Gj

¹⁷⁵ Fisman, D. (2021, August 23). It is with mixed emotions that I have decided to resign from Ontario's science and modeling tables. I wish every success to the colleagues who remain on these tables. Ontario needs a public health system that is arm's length from politics. [Tweet]. Twitter. https://archive.ph/1VUVn

¹⁷⁶ Dr. David Fisman. Ontario Medical Association. Retrieved January 23, 2022, from https://www.oma.org/expert-advice/request-a-physician-speaker/speakers-search/dr-david-fisman/

"Epidemiology, Modeling and Forecasting of COVID-19: The Nuts and Bolts", and "Mathematical Modeling of Infectious Diseases—An Introduction for Mathophiles and Mathophobes Alike".

Ontario Nurses Association

Fisman is a paid advisor to the Ontario Nurses Association related to COVID-19.160

SickKids

Fisman worked as a scientist at SickKids from September 2006 - August 2009. 159

Toronto East Health Network

Fisman has hospital privileges as a practicing internist at Michael Garron Hospital within the Toronto East Health Network.¹⁶⁹

MGH is funded through the Michael Garron Hospital Foundation by BMO Financial Group, RBC (Royal Bank of Canada), Scotiabank, TD Bank Group, CIBC, Shoppers Drug Mart, Manulife, HLS Therapeutics, Deloitte, KPMG, Citi, PayPal, Salesforce, the Globe and Mail, Air Canada, Cadillac Fairview, Bell Canada, PricewaterhouseCoopers, Boehringer Ingelheim, Honda Motor, Honeywell, TELUS, and United Way.^{177, 178}

University Health Network

Fisman is a practicing physician at University Health Network. 179

University of Toronto

Fisman has been a professor of epidemiology at the Dalla Lana School of Public Health at the University of Toronto since September 2009. 159, 180

Relationships with Pharmaceutical Companies

Fisman is a paid member of COVID-19 related advisory boards for Pfizer and AstraZeneca. 160

¹⁷⁷ Michael Garron Hospital Foundation. (2021, March 31). 2020-2021 Donors List. https://www.mghf.ca/sites/default/files/file-browser/2020-2021_donor_list.pdf

https://www.mgnr.ca/sites/default/files/file-browser/2020-2021_donor_list.pdf (178 2019/2020 Annual Report. Michael Garron Hospital Foundation.

https://www.mghf.ca/sites/default/files/file-browser/mghf ar 2019 2020 final email 081420.pdf

¹⁷⁹ Dr. David Fisman - Dalla Lana School of Public Health | RealREIT Speaker. Informa Connect. Retrieved January 23, 2022, from https://archive.ph/uwY55

¹⁸⁰ Fisman, David N. Dalla Lana School of Public Health; University of Toronto. Retrieved January 23, 2022, from https://archive.ph/zl6ud

Jessica Hopkins

Dr. Jessica Hopkins is employed at the Dalla Lana School of Public Health at the University of Toronto, McMaster University, and Public Health Ontario. She is also Co-Chair of the Ontario Immunization Advisory Committee (OIAC), and formerly held lead Officer positions for Hamilton and Niagara, and Peel Health Region. She is registered to practice medicine at Limeridge Medical Centre.

Limeridge Medical Centre

Hopkins is registered with the College of Physicians and Physicians (CPSO) to practice medicine at Limeridge Medical Centre in Hamilton, Ontario.¹⁸¹

McMaster University

Hopkins is an Assistant Professor in Health Research Methods, Evidence and Impact in the Faculty of Health Sciences at McMaster University. 182

Ontario COVID-19 Science Advisory Table

Hopkins is a member of the Ontario COVID-19 Science Advisory Table.¹⁸³ In this capacity, Hopkins urged parents to inject their children with a COVID-19 product as soon as they were approved by the National Advisory Committee on Immunization (NACI), as well as all of their caregivers.¹⁸⁴

Ontario Medical Association

Hopkins has served as a member on the Physician Services Committee of the Ontario Medical Association, for which she received "remuneration for travel and accommodation". 185

¹⁸¹ Hopkins, Jessica Patricia - Doctor Details. College of Physicians and Surgeons of Ontario. Retrieved December 12, 2021, from https://doctors.cpso.on.ca/DoctorDetails/Hopkins-Jessica---Patricia/0210039-80671

¹⁸² Jessica Hopkins. McMaster University. Retrieved December 12, 2021, from https://experts.mcmaster.ca/display/hopkij1

¹⁸³ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 29, 2022, from https://covid19-sciencetable.ca/about/#hopkins-jessica

¹⁸⁴ Cross, J. S. (2021, August 26). *Public Health Ontario urging parents to immunize young children against COVID-19 as soon as vaccines are approved.* QP Briefing.

https://www.qpbriefing.com/2021/08/26/public-health-ontario-urging-parents-to-immunize-young-children-against-covid-19-as-soon-as-vaccines-are-approved/

¹⁸⁵ Hopkins, J. (2021, August 23). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2020/11/Declaration-of-Interest_Science-Table_Jessica-Hopkins_20210823.pdf

Public Health Agency of Canada

Hopkins is a member of the Technical Advisory Committee for COVID-19 under the Public Health Agency of Canada (PHAC).¹⁸⁶

Public Health Ontario

Hopkins is the Chief Health Protection and Emergency Preparedness Officer at Public Health Ontario. Her listed areas of expertise are public health, communicable diseases, surveillance and epidemiology, and public health policy. Her COVID-19 research activities under PHO are "examining child and family policies", "collaborating on understanding mask use in schools through simulation", and "collaboration on public health syndromic surveillance using people-driven data".¹⁸⁷

University of Toronto

Hopkins is an Adjunct Lecturer with the Dalla Lana School of Public Health at the University of Toronto, in the Clinical Public Health Division. Her research interests are "applied public health practice and communicable disease control". 188

Publications

Hopkins' relevant studies featured by her profiles on U of T and McMaster's websites include:

- August 9, 2021: Impact of COVID-19 pre-test probability on positive predictive value of high cycle threshold SARS-CoV-2 real-time reverse transcription PCR test results.¹⁸⁹
 - Conclusion: "Large-scale SARS-CoV-2 screening testing initiatives among low pre-test probability populations [patients who are not symptomatic and/or don't have a confirmed contact with a person sick with COVID-19] should be evaluated thoroughly prior to implementation given the risk of false positives and consequent potential for harm at the individual and population level."

Hopkins, J. (2021, May 25). Declaration of Interest. Ontario COVID-19 Science Advisory Table.

https://covid19-sciencetable.ca/wp-content/uploads/2020/11/Declaration-of-Interest_Science-Table_Hopkins_20210525.pdf

¹⁸⁷ Dr. Jessica Hopkins. (2021, January 6). Public Health Ontario.

https://www.publichealthontario.ca/en/about/research/our-researchers/jessica-hopkins

188 Dalla Lana School of Public Health. (2018, June 14). *Hopkins, Jessica*. University of Toronto. https://www.dlsph.utoronto.ca/faculty-profile/hopkins-jessica/

¹⁸⁹ Gubbay, J. B., Rilkoff, H., Kristjanson, H. L., Forbes, J. D., Murti, M., Eshaghi, A., Broukhanski, G., Corbeil, A., Fittipaldi, N., Hopkins, J. P., Kristjanson, E., Kus, J. V., Macdonald, L., Majury, A., Mallo, G. V., Mazzulli, T., Melano, R. G., Olsha, R., Perusini, S. J., & Tran, V. (2021). Impact of COVID-19 pre-test probability on positive predictive value of high cycle threshold SARS-CoV-2 real-time reverse transcription PCR test results. Infection Control & Hospital Epidemiology, 1–18. https://doi.org/10.1017/ice.2021.369

- April 8, 2021: S-Gene Target Failure as a Marker of Variant B.1.1.7 Among SARS-CoV-2 Isolates in the Greater Toronto Area, December 2020 to March 2021¹⁹⁰
- March 25, 2021: The effect of seasonal respiratory virus transmission on syndromic surveillance for COVID-19 in Ontario, Canada¹⁹¹
 - Funded by the Department of Medicine COVID-19 Funding Opportunity from the University of Toronto
 - o Co-authored by former fellow OST member David Fisman
- February 15, 2017: Evaluation of the ability of standardized supports to improve public health response to syndromic surveillance for respiratory diseases in Canada¹⁹²
 - Funded by the Canadian Institutes of Health Research (CIHR)
- December 14, 2015: World Health Organization Guidelines for treatment of cervical intraepithelial neoplasia 2–3 and screen-and-treat strategies to prevent cervical cancer¹⁹³
 - Funded by the World Health Organization (WHO), Flanders International Cooperation Agency, Institut National du Cancer (National Cancer Institute in France), and Gavi, the Vaccine Alliance
- November 12, 2015: Systematic reviews and meta-analyses of the accuracy of HPV tests, visual inspection with acetic acid, cytology, and colposcopy¹⁹⁴
 - Commissioned and funded by the World Health Organization (WHO)
- April 3, 2012: Antivirals for Treatment of Influenza: A Systematic Review and Meta-analysis of Observational Studies¹⁹⁵
 - Funded by the World Health Organization (WHO) and McMaster University

¹⁹⁰ Brown, K. A., Gubbay, J., Hopkins, J., Patel, S., Buchan, S. A., Daneman, N., & Goneau, L. W. (2021). S-Gene Target Failure as a Marker of Variant B.1.1.7 Among SARS-CoV-2 Isolates in the Greater Toronto Area, December 2020 to March 2021. JAMA, 325(20), 2115. https://doi.org/10.1001/jama.2021.5607

¹⁹¹ Maharaj, A. S., Parker, J., Hopkins, J. P., Gournis, E., Bogoch, I. I., Rader, B., Astley, C. M., Ivers, N., Hawkins, J. B., VanStone, N., Tuite, A. R., Fisman, D. N., Brownstein, J. S., & Lapointe-Shaw, L. (2021). *The effect of seasonal respiratory virus transmission on syndromic surveillance for COVID-19 in Ontario, Canada*. The Lancet Infectious Diseases, 21(5), 593–594. https://doi.org/10.1016/s1473-3099(21)00151-1

¹⁹² Rivera, L. A., Li, Y., Savage, R. D., Crowcroft, N. S., Bolotin, S., Rosella, L. C., Lou, W., Hopkins, J., Gemmill, I., & Johnson, I. (2017). Evaluation of the ability of standardized supports to improve public health response to syndromic surveillance for respiratory diseases in Canada. BMC Public Health, 17(1). https://doi.org/10.1186/s12889-017-4073-6

¹⁹³ Santesso, N., Mustafa, R. A., Schünemann, H. J., Arbyn, M., Blumenthal, P. D., Cain, J., Chirenje, M., Denny, L., De Vuyst, H., Eckert, L. O., Forhan, S. E., Franco, E. L., Gage, J. C., Garcia, F., Herrero, R., Jeronimo, J., Lu, E. R., Luciani, S., Quek, S. C., & Sankaranarayanan, R. (2016). World Health Organization Guidelines for treatment of cervical intraepithelial neoplasia 2-3 and screen-and-treat strategies to prevent cervical cancer. International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics, 132(3), 252–258. https://doi.org/10.1016/j.ijao.2015.07.038

¹⁹⁴ Mustafa, R. A., Santesso, N., Khatib, R., Mustafa, A. A., Wiercioch, W., Kehar, R., Gandhi, S., Chen, Y., Cheung, A., Hopkins, J., Ma, B., Lloyd, N., Wu, D., Broutet, N., & Schünemann, H. J. (2016). *Systematic reviews and meta-analyses of the accuracy of HPV tests, visual inspection with acetic acid, cytology, and colposcopy.* International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics, 132(3), 259–265. https://doi.org/10.1016/j.ijgo.2015.07.024

¹⁹⁵ Hsu, J., Santesso, N., Mustafa, R., Brozek, J., Chen, Y. L., Hopkins, J. P., Cheung, A., Hovhannisyan, G., Ivanova, L., Flottorp, S. A., Sæterdal, I., Wong, A. D., Tian, J., Uyeki, T. M., Akl, E. A., Alonso-Coello, P., Smaill, F., & Schünemann, H. J. (2012). *Antivirals for Treatment of Influenza*. Annals of Internal Medicine, 156(7), 512. https://doi.org/10.7326/0003-4819-156-7-201204030-00411

Peter Jüni

Peter Jüni is a general internist and epidemiologist, and holds a Tier 1 Canada Research Chair in Clinical Epidemiology of Chronic Diseases. He is the Scientific Director of the Ontario COVID-19 Science Advisory Table, and sits on the Drugs & Biologics Clinical Practice Guidelines Working Group.¹⁹⁶

He has received funding from a variety of pharmaceutical companies including Abbott Vascular, Amgen, Appili Therapeutics, AstraZeneca, AVA Pharmaceuticals, Biosensors International, Biotronik, Eli Lilly, Fresenius, The Medicines Company and Terumo.¹⁹⁷

Education

Jüni is a graduate of the Faculty of Medicine at the University of Bern in Switzerland, completed his training in internal medicine at various hospitals in Switzerland, and was a Research Fellow at the Department of Social Medicine at the University of Bristol, UK.

Arthritis Society

Jüni received a Young Investigator Operating Grant from the Arthritis Society for a study called "Personalization of osteoarthritis care using large-scale randomized evidence: network meta-analysis and methodological development". 198

Canada Foundation for Innovation

Jüni received a grant through the John R. Evans Leaders Fund for participation in "The CardioLink Research Platform: Innovations in Cardiovascular Surgery & Cardiometabolic Care". 199

He also received a SPOR Innovative Clinical Trial Multi-Year Grant called "Evaluating Innovative Health Care Solutions to Improve Outcomes for Persons with Type 1 Diabetes using a Novel Electronic Data Repository Reducing Diabetic Foot Complications through a Multidisciplinary Chiropodist Based Intervention".

¹⁹⁶ About Us. Ontario COVID-19 Science Advisory Table. Retrieved December 31, 2021, from https://covid19-sciencetable.ca/about/#juni-peter

 ¹⁹⁷ Jüni, P. (2021). Declaration of Interest. Ontario COVID-19 Science Advisory Table.
 https://covid19-sciencetable.ca/wp-content/uploads/2020/08/Declaration-of-Interest_Science-Table_Peter-Juni7_20210512-1.pdf
 https://covid19-sciencetable.ca/wp-content/uploads/2020/08/Declaration-of-Interest_Science-Table_Peter-Juni7_20210512-1.pdf

¹⁹⁹ Institution / Établissement Maximum CFI contribution / contribution maximale de la FCI. (2021). Canadian Foundation for Innovation. https://www.innovation.ca/sites/default/files/2021-09/Executive%20Summary%20of%20CFI%20Awards.pdf

Canadian Institutes of Health Research

Jüni holds a Tier 1 Canada Research Chair in Clinical Epidemiology of Chronic Diseases from the Canadian Institutes of Health Research (CIHR), which has provided him funding.

He received a grant through Unity Health Toronto titled "TRICS IV - Restrictive versus Liberal Transfusion in Younger Patients Undergoing Cardiac Surgery" from the CIHR.²⁰⁰ The grant paid \$1,675,350.00 for a 3-year period.²⁰¹

Jüni is also a co-applicant through the University Health Network on a grant called "Semaglutide to Reduce Myocardial Injury in PATIents With COVID-19 (SEMPATICO)" from the CIHR under an operating grant called "COVID-19 Rapid Research Funding Opportunity - Therapeutics". The study is exploring the use of a drug called semaglutide (sold under the brand name Ozempic among others), developed by Novo Nordisk. The grant awards \$664,145.00 over a 1-year period.

A similar grant was awarded to Jüni, also through Unity Health Toronto, for a study called "COVID-19 Ring-based Prevention trial with lopinavir-ritonavir (CORIPREV-LR)". Lopinavir and ritonavir are used together as a treatment for HIV/AIDS. CIHR awarded \$817,960.00 to the institution over a 1-year period. The study was also funded by the St. Michael's Hospital Foundation, as well as through in-kind support from AbbVie and the CIHR Centre for REACH 3.0. The pair of drugs is marketed by AbbVie as Keltra.

He and Unity Health Toronto also received a grant from the CIHR for "The Functional Improvement Trajectories After Surgery (FIT After Surgery) Study: A Multicentre Prospective

²⁰⁰ TRICS IV - Restrictive versus Liberal Transfusion in Younger Patients Undergoing Cardiac Surgery. Dimensions; Digital Science & Research Solutions, Inc. Retrieved December 31, 2021, from https://archive.ph/OLTs9

 ²⁰¹ Canadian Institutes of Health Research. (2021, July 8). TRICS IV - Restrictive versus Liberal Transfusion in Younger Patients Undergoing Cardiac Surgery. Funding Decisions Database; Government of Canada. https://archive.ph/KZHFI
 ²⁰² Džavík, V., Unity Health Toronto, Canadian Institutes of Health Research (CIHR), & University of Toronto. (2020, November 2). Semaglutide to Reduce Myocardial Injury in PATIents With COVID-19 Randomized Controlled Trial. ClinicalTrials.gov. https://archive.ph/FXkYi

²⁰³ Sperling, K., & Inchausti, K. (2017, December 5). *Ozempic®* (semaglutide) approved in the US. Novo Nordisk. https://archive.ph/sPWHh

²⁰⁴ Canadian Institutes of Health Research. *Semaglutide to reduce Myocardial injury in PATIents with COVID-19 (SEMPATICO): An exploratory randomized controlled clinical trial.* Funding Decisions Database; Government of Canada. Retrieved December 31, 2021, from https://archive.ph/17ulg

²⁰⁵ Tan, D. H. S., Chan, A. K., Jüni, P., Tomlinson, G., Daneman, N., Walmsley, S., Muller, M., Fowler, R., Murthy, S., Press, N., Cooper, C., Lee, T., Mazzulli, T., & McGeer, A. (2021). *Post-exposure prophylaxis against SARS-CoV-2 in close contacts of confirmed COVID-19 cases (CORIPREV): study protocol for a cluster-randomized trial.* Trials, 22(1). https://doi.org/10.1186/s13063-021-05134-7
²⁰⁶ Cao, B., Wang, Y., Wen, D., Liu, W., Wang, J., Fan, G., Ruan, L., Song, B., Cai, Y., Wei, M., Li, X., Xia, J., Chen, N., Xiang, J., Yu, T., Bai, T.,

Xie, X., Zhang, L., Li, C., & Yuan, Y. (2020). A Trial of Lopinavir—Ritonavir in Adults Hospitalized with Severe Covid-19. New England Journal of Medicine, 382(19). https://doi.org/10.1056/nejmoa2001282

²⁰⁷ Canadian Institutes of Health Research. *COVID-19 Ring-based Prevention trial with Lopinavir/ritonavir (CORIPREV-LR)*. Funding Decisions Database; Government of Canada. Retrieved December 31, 2021, from https://webapps.cihr-irsc.gc.ca/decisions/p/project_details.html?applId=429813&lang=en

²⁰⁸ Lopinavir/Ritonavir: Kaletra, Aluvia. AbbVie | Pharmaceutical Research & Development. Retrieved December 31, 2021, from https://archive.ph/xhcNs

Cohort Study to Evaluate the Incidence, Trajectories, Risk Factors, Impact and Healthcare Costs". The institution received \$1,388,474.00 over a 39-month period.²⁰⁹

Further, he received a grant totalling \$482,936.00 for 2020-2022 from the CIHR for a project called "PRECEDE: Preconception risk factors and Cardiometabolic health in Early childhood". The team for the study is based at SickKids.

Strategy for Patient-Oriented Research (SPOR)

Jüni received a grant from the Government of Canada through CIHR-SPOR for a study called REMAP-CAP, an international platform trial exploring COVID-19 and community-acquired pneumonia (CAP).²¹¹

TARGetKids!

Jüni has received funding through the CIHR for "Nutrition Recommendation Intervention trials in children's healthcare" under TARGetKids!²¹²

CanCOVID

Jüni is a Network Science Advisor on the Executive Leadership team of CanCOVID, where he has received funding as co-principal investigator.²¹³

The Cochrane Collaboration

Jüni was Editor of two Cochrane Review Groups, and contributed to the Cochrane Risk of bias tools for randomized and non-randomized studies.

European Society of Cardiology

Jüni is a Fellow of the European Society of Cardiology, where he has had leading roles in several major cardiovascular trials, including SIRTAX, LEADERS, FAME 2 and MATRIX, served as a member of several task forces of the European Society of Cardiology and co-authored the

²⁰⁹ Canadian Institutes of Health Research. *The Functional Improvement Trajectories After Surgery (FIT After Surgery) Study: A Multicentre Prospective Cohort Study to Evaluate the Incidence, Trajectories, Risk Factors, Impact and Healthcare Costs Related to Significant New Disability after Major Elective Surgery.* Funding Decisions Database; Government of Canada. Retrieved December 31, 2021, from https://webapps.cihr-irsc.gc.ca/decisions/p/project_details.html?applid=370774&lang=en

²¹⁰ PRECEDE: Preconception risk factors and Cardiometabolic health in Early childhood. Canadian Research Information System; Government of Canada. Retrieved December 31, 2021, from https://archive.ph/1gQry

²¹¹ Background. REMAP-CAP Trial. Retrieved December 31, 2021, from https://archive.ph/zDPXX

²¹² Birken CS, Omand JA, Nurse KM, et al. *Fit for School Study protocol: early child growth, health behaviours, nutrition, cardiometabolic risk and developmental determinants of a child's school readiness, a prospective cohort.* BMJ Open 2019;9:e030709. doi:10.1136/bmjopen-2019-030709

²¹³ About. CanCOVID. Retrieved December 31, 2021, from https://archive.ph/SqnMv

European guidelines on myocardial revascularization and on the management of acute myocardial infarction.

Ontario COVID-19 Science Advisory Table

Jüni is the Scientific Director of the Ontario COVID-19 Science Advisory Table since July 2020, and sits on the Drugs & Biologics Clinical Practice Guidelines Working Group.¹⁸⁹

Unity Health Toronto

Jüni was Co-Applicant on a grant for a Unity Health Toronto study called "Careful Ventilation in Acute Respiratory Distress Syndrome (COVID-19) (CAVIARDS)", funded by the Canadian Institutes of Health Research (CIHR) and the University of Toronto.²¹⁴

St. Michael's Hospital

Jüni is the Director of the Applied Health Research Centre (AHRC) at the Li Ka Shing Knowledge Institute at St. Michael's Hospital under Unity Health Toronto.

University of Bern

Prior to joining St. Michael's Hospital, Peter was the Director of the Institute of Primary Health Care and Professor of Primary Care and Clinical Epidemiology at the Faculty of Medicine at the University of Bern in Switzerland. He held previous appointments as Director of the Institute of Social and Preventive Medicine at the University of Bern and Founding Director of CTU Bern, the University's clinical trials unit.

University of Toronto

Jüni is a Professor of Medicine and Epidemiology in the Department of Medicine and Institute of Health Policy, Management and Evaluation at the University of Toronto.

He received funding from U of T as a Co-Applicant for a study called "Prone positioning for patients on general medical wards with COVID19: A multicenter pragmatic randomized trial." ²¹⁵

He is also a Co-Primary Investigator in a study called "Control of COVID-19 outbreaks in long term care" funded by a grant from U of T.

 ²¹⁴ Unity Health Toronto, Canadian Institutes of Health Research (CIHR), University of Toronto, & Applied Health Research Centre.
 (2021, July 8). Careful Ventilation in Acute Respiratory Distress Syndrome. ClinicalTrials.gov. https://archive.ph/EYCTO
 ²¹⁵ Unity Health Toronto, Sunnybrook Health Sciences Centre, Sinai Health System, Toronto General Hospital, University Health Network, Toronto, & William Osler Health System. (2021, May 12). Prone Positioning for Patients on General Medical Wards With COVID19: A Multicenter Pragmatic Randomized Trial [COVID-PRONE]. ClinicalTrials.gov. https://archive.ph/v6K4Q

Relationships with Pharmaceutical Companies

Abbott Laboratories

Jüni serves as an unpaid member of the steering group or executive committee of trials funded by Abbott Vascular and St. Jude Medical, which was acquired by Abbott Laboratories in January 2017. 216, 217

Amgen

Jüni is paid honoraria (to his institution) for participation in advisory boards and/or consulting from Amgen, as well as being reimbursed travel/accommodation/meeting expenses.

Appili Therapeutics

Jüni is Co-Primary Investigator for a study investigating the use of Favipiravir for COVID-19 in long-term care settings.^{218, 219} He was funded by Appili Therapeutics through the Applied Health Research Centre within Unity Health Toronto.²²⁰

AstraZeneca

Jüni serves as an unpaid member of a steering group or executive committee of trials funded by AstraZeneca.²²¹

AVA Pharmaceuticals

Jüni is paid honoraria (to his institution) for participation in advisory boards and/or consulting from honoraria to the institution for participation in advisory boards and/or consulting from AVA Pharmaceuticals.

²¹⁶ Cortez, M. F. (2016, April 28). *Abbott to Buy St. Jude Medical in Deal Valued at About \$25 Billion*. Bloomberg. https://www.bloomberg.com/news/articles/2016-04-28/abbott-agrees-to-buy-st-jude-medical-for-25-billion with a combination: Why It Makes Sense. Bloomberg Daybreak: Americas.

²¹⁷ Wang, D. (2016, April 28). *Abbott-St. Jude Combination: Why It Makes Sense*. Bloomberg Daybreak: Americas. https://www.bloomberg.com/news/videos/2016-04-28/abbott-st-jude-combination-why-it-makes-sense

²¹⁸ Jüni, P. (2021). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table.

https://covid19-sciencetable.ca/wp-content/uploads/2020/08/Declaration-of-Interest_Science-Table_Peter-Juni_20211104.pdf
²¹⁹ Russell, A. (2020, June 17). Canadian researchers to test if antiviral drug can stop COVID-19 outbreaks at nursing homes. Global News. https://archive.ph/DGDPa

²²⁰ Control of Covid-19 outbreaks in long term care. TIBDN: Toronto Invasive Bacterial Diseases Network. Retrieved December 31, 2021, from https://archive.ph/FWc7h

²²¹ Smieja, M., Bulir, D., Mertz, D., Rosella, L., Regehr, C., & Goel, V. (2020, January). *International Border Surveillance Study.* Public Health Ontario.

https://www.publichealthontario.ca/-/media/event-presentations/2021/international-border-surveillance-study-rounds-jan-26.pdf

Biosensors International

Jüni serves as an unpaid member of a steering group or executive committee of trials funded by Biosensors International.

Biotronik

Jüni serves as an unpaid member of a steering group or executive committee of trials funded by Biotronik.

Eli Lilly

Jüni serves as an unpaid member of a steering group or executive committee of trials funded by Eli Lilly.

Fresenius

Jüni is paid honoraria (to his institution) for participation in advisory boards and/or consulting from honoraria to the institution for participation in advisory boards and/or consulting from Fresenius, as well as being reimbursed travel/accommodation/meeting expenses.

The Medicines Company

Jüni serves as an unpaid member of a steering group or executive committee of trials funded by The Medicines Company.

Terumo

Jüni serves as an unpaid member of the steering group or executive committee of trials funded by Terumo.

Studies and Publications

- December 19, 2021: Cash transfer during the COVID-19 pandemic: a multicentre, randomised controlled trial
 - Conclusions: "A single cash transfer did not reduce the COVID-19 symptoms or improve the ability to afford necessities. Further studies are needed to determine whether some groups may benefit from financial supports and to determine if a higher level of support is beneficial."

²²² Persaud, N., Thorpe, K. E., Bedard, M., Hwang, S. W., Pinto, A., Jüni, P., & da Costa, B. R. (2021). *Cash transfer during the COVID-19 pandemic: a multicentre, randomised controlled trial.* Family Medicine and Community Health, 9(4), e001452. https://doi.org/10.1136/fmch-2021-001452

- November 25, 2021: Risk-stratification of febrile African children at risk of sepsis using sTREM-1 as basis for a rapid triage test
 - Funded by the Bill & Melinda Gates Foundation, Intellectual Ventures, the Canadian Institutes of Health Research (CIHR), Canada Research Chair Program (CRCP), and donations from Kim Kertland and the Tesari Foundation²²³
- October 22, 2021: Age and Sex Specific Prevalence of Clinical and Screen-Detected Atrial Fibrillation in Hospitalized Patients²²⁴
 - Funded by the Swiss National Science Foundation and the Swiss Heart Foundation
- March 10, 2021: Coagulopathy of hospitalised COVID-19: A Pragmatic Randomised
 Controlled Trial of Therapeutic Anticoagulation versus Standard Care as a Rapid
 Response to the COVID-19 Pandemic (RAPID COVID COAG RAPID Trial): A structured
 summary of a study protocol for a randomised controlled trial^{225, 226}
 - Funded by Defense Research Development Canada under the Department of National Defense, St. Michael's Hospital Foundation, St. Joseph's Health Centre Foundation, and the International Network of Venous Thromboembolism Clinical Research Networks (INVENT) Kickstarter Award

Media Appearances

CBC News

On December 22, 2021, Jüni stated that Ontario's testing system is usually able to capture 40% of cases, but Omicron caused them to max out at 30% - and that international cooperation is key in understanding the virus.²²⁷

CTV News

On December 12, 2021, Jüni encouraged Ontarians to get a "booster dose" of a COVID-19 vaccine product due to the rapid spread of the Omicron variant of SARS-CoV-2. "If you're fully

²²³ Leligdowicz, A., Conroy, A. L., Hawkes, M., Richard-Greenblatt, M., Zhong, K., Opoka, R. O., Namasopo, S., Bell, D., Liles, W. C., da Costa, B. R., Jüni, P., & Kain, K. C. (2021). *Risk-stratification of febrile African children at risk of sepsis using sTREM-1 as basis for a rapid triage test.* Nature Communications, 12(1). https://doi.org/10.1038/s41467-021-27215-6

Roten, L., Goulouti, E., Lam, A., Elchinova, E., Nozica, N., Spirito, A., Wittmer, S., Branca, M., Servatius, H., Noti, F., Seiler, J., Baldinger, S. H., Haeberlin, A., de Marchi, S., Asatryan, B., Rodondi, N., Donzé, J., Aujesky, D., Tanner, H., & Reichlin, T. (2021). *Age and Sex Specific Prevalence of Clinical and Screen-Detected Atrial Fibrillation in Hospitalized Patients*. Journal of Clinical Medicine, 10(21), 4871. https://doi.org/10.3390/jcm10214871

²²⁵ Coagulopathy of COVID-19: A Pragmatic Randomized Controlled Trial of Therapeutic Anticoagulation Versus Standard Care. (2021, October 26). ClinicalTrials.gov. https://archive.ph/Ea15u

²²⁶ Sholzberg, M., Tang, G. H., Negri, E., Rahhal, H., Kreuziger, L. B., Pompilio, C. E., James, P., Fralick, M., AlHamzah, M., Alomran, F., Tseng, E., Lim, G., Lillicrap, D., Carrier, M., Áinle, F. N., Beckett, A., da Costa, B. R., Thorpe, K., Middeldorp, S., & Lee, A. (2021). Coagulopathy of hospitalised COVID-19: A Pragmatic Randomised Controlled Trial of Therapeutic Anticoagulation versus Standard Care as a Rapid Response to the COVID-19 Pandemic (RAPID COVID COAG – RAPID Trial): A structured summary of a study protocol for a randomised controlled trial. Trials, 22(1), 202. https://doi.org/10.1186/s13063-021-05076-0

²²⁷ Dubois, S. (2021, December 22). *Omicron is blurring true picture of COVID-19 cases. But experts say there are other ways to capture it.* CBC News. https://archive.ph/1rL2h

vaccinated - two doses, this doesn't protect you anymore against infection, that's a reality. But it continues to prevent serious disease, that's most likely the case based on everything we know." He also stated that he would bet on the definition of "fully vaccinated" being changed shortly, "because to be honest if you have two doses and go into a restaurant you're able to infect the entire restaurant."²²⁸

Interaction 19 Conference

Jüni was paid to speak on the topic of "clinical research" at Interaction 19 Conference, an event held in early February 2019 in Seattle, Washington and sponsored by Adobe, Amazon, Google, Microsoft, Facebook, Cisco, Netflix, Oracle, Salesforce, Spotify, Squarespace, Twitter, Verizon, Volvo and Westin, among others.^{229, 230}

²²⁸ Pringle, J. (2021, December 12). "We really need optimal protection": Head of COVID-19 science table urges everyone to get COVID-19 booster shot. CTV News Ottawa. https://archive.ph/OTTli

²²⁹ Interaction 19 – 3-8 February 2019 • Seattle, WA. Interaction Design Association. Retrieved December 31, 2021, from https://interaction19.ixda.org/

²³⁰ Our Partners. Interaction Design Association. Retrieved December 31, 2021, from https://interaction19.ixda.org/partners/

Linda Mah

Linda Mah, MD, MHSc, FRCPC, is a Canadian Clinician Scientist at the Rotman Research Institute, Baycrest Health Sciences, an Associate Professor in Psychiatry, Division of Geriatric Psychiatry at the University of Toronto, and an Associate Member of the Institute of Medical Science, Faculty of Medicine, University of Toronto.²³¹

Education

Dr. Mah obtained her MD at the University of Calgary and completed a psychiatric residency at McGill University, followed by clinical neuropsychiatry specialty training at the University of Massachusetts and formal research training in cognitive and affective neurosciences at the National Institutes of Health, Bethesda, Maryland, USA. She has a Master of Health Sciences degree from Duke University, USA, where she attended from 2003-2006.²³²

Academy of Consultation-Liaison Psychiatry

In 1998 - 1999, Mah worked as a member of the Fellowships and Awards Committee of the Academy of Consultation-Liaison Psychiatry (also known as the Academy of Psychosomatic Medicine) in Bethesda, Maryland.²²⁵

Baycrest Health Sciences

Mah is a Clinician Scientist at the Rotman Research Institute at Baycrest Health Sciences in the North York district of Toronto, Ontario.²³³ She is also a Staff Psychiatrist at Baycrest.²²⁵

Canadian Psychiatric Association

In 1996 - 1997, Mah served as Corresponding Member of the Efficacy and Cost-effectiveness Working Group, Steering Committee on the Psychotherapies. Ottawa, Ontario, Canada.

²³¹ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 25, 2022, from https://covid19-sciencetable.ca/about/#mah-linda-2

²³² Mah, L. (2019). *Curriculum Vitae*. Rotman Research Institute.

https://www.rotman-baycrest.on.ca/files/employeeprofilemodule/@random49e4b2c2c6443/MAH_WebCV_July_31_2019_RRI.pdf

²³³ Dr. Linda Mah. Baycrest Centre. Retrieved January 25, 2022, from https://archive.ph/eXS9Q

Centre for Addiction and Mental Health

Mah also acted as a Staff Psychiatrist in the Adult Neurodevelopment and Geriatric Psychiatry Division at the Centre for Addiction and Mental Health (CAMH).²²⁵

National Institutes of Health

Mah worked as a Staff Physician at the Warren Grant Magnuson Clinical Center under the National Institutes of Health (NIH) in Bethesda, Maryland from 2000-2006.

She received a Fellows Award for Research Excellence from the National Institute of Mental Health in 2005.

Ontario COVID-19 Science Advisory Table

Mah is a member of the Ontario COVID-19 Science Advisory Table, and a Co-Chair of the Mental Health Working Group.²²⁴

University of Waterloo

From September 1987 until April 1988, Mah worked as a part-time research assistant in the Department of Psychology at the University of Waterloo under Dr. Kathleen Bloom. She returned in May 1991 to complete three further months of research funded by the Natural Sciences and Engineering Research Council of Canada (NSERC), under Dr. Phil Bryden.

University of Toronto

Mah is an Associate Professor in Psychiatry, Division of Geriatric Psychiatry at the University of Toronto, and an Associate Member of the Institute of Medical Science, Faculty of Medicine, University of Toronto. She received \$150,000.00 as an Academic Scholar Award from the Department of Psychiatry in 2018.²²⁵

Worcester State Hospital

In her curriculum vitae, Mah describes having worked as a Staff Psychiatrist at the Worcester State Hospital in Worcester, Massachusetts from 1999-2000.²²⁵

Societies and Associations

Man is a member of various societies and associations relevant to her field.²²⁵

Name	Dates Active	Notes
Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)	2018 - present	-
Organization for Human Brain Mapping	2018 - present	-
Federation of Medical Women of Canada	2018 - present	-
Canadian Association for Geriatric Psychiatry	2015 - present	Member, Research Committee. Markham, Ontario, Canada.
Society for Biological Psychiatry	2010 - 2016	-
American Association of Geriatric Psychiatry	2007 - present	-
Society for Neuroscience	2004 - present	-
Cognitive Neuroscience Society	2002 - 2006	-
American Neuropsychiatric Association	1998 - 2006	Member, Program and Education Committees. Houston, Texas, United States of America

Research

Dr. Mah's research program focuses on understanding the relationship between cognition and emotion and their neuroanatomical correlates in healthy aging and in disorders of the elderly, including late-life depression (LLD), mild cognitive impairment (MCI), and Alzheimer's disease (AD).

Her research employs converging methods including behavioural paradigms, neuropsychological assessment, neuroimaging, and more recently, psychophysiology. She has a particular interest in examining emotion dysregulation and other neuropsychiatric symptoms as potential biomarkers of AD risk, and in understanding the link between stress and development of AD.

Dr. Mah is also the primary investigator (or site investigator) on clinical trials focused on treatment-refractory depression in older adults and studies using brain stimulation as an intervention for cognitive decline in older adults at risk for developing AD, including those with remitted depression, subjective cognitive decline (SCD) or MCI.

She is an Associate Editor for the Journal of Alzheimer's Disease. 224

COVID-19

Mah took part in joint research with Baycrest Health Sciences's Rotman Research Institute and the Centre for Addiction and Mental Health (CAMH) studying the impact of COVID-19 and physical

distancing measures on older adults' mental health, funded by the Ontario Ministry of Health and Long-Term Care Academic Health Science Centre (AHSC) Alternative Funding Plan (AFP) Innovation Fund.²³⁴

Funding

Dr. Mah's work has been primarily funded by the Alzheimer's Society of Canada, Brain Canada, and the Centre for Aging and Brain Health Innovation.²²⁴ Further research funding has come from the National Institute of Mental Health and The Scottish Rite Charitable Foundation.^{235, 236}

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²³⁴ Mah, L. (2021). Declaration of Interest. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/04/Declaration-of-Interest_Mental-Health-Working-Group_Linda-Mah_20210
827.pdf

²³⁵ Breitberg, A., Drevets, W. C., Wood, S. E., Mah, L., Schulkin, J., Sahakian, B. J., & Erickson, K. (2013). *Hydrocortisone infusion exerts dose- and sex-dependent effects on attention to emotional stimuli.* Brain and Cognition, 81(2), 247–255. https://doi.org/10.1016/j.bandc.2012.10.010

²³⁶ Mah, L., Zarate, C. A., Nugent, A. C., Singh, J. B., Manji, H. K., & Drevets, W. C. (2011). *Neural mechanisms of antidepressant efficacy of the dopamine receptor agonist pramipexole in treatment of bipolar depression*. International Journal of Neuropsychopharmacology, 14(4), 545–551. https://doi.org/10.1017/s1461145710001203

Robert Maunder

Dr. Robert Maunder is a Professor of Psychiatry at the University of Toronto, as well as the Chair of Health and Behaviour and Deputy Psychiatrist-in-Chief at Sinai Health System. He has received COVID-19 funding from the Canadian Institutes of Health Research (CIHR), and sits on the Mental Health Working Group of the Ontario COVID-19 Science Advisory Table. Maunder is also conducting COVID-19 research with U of T and Sinai as well as the Toronto Invasive Bacterial Diseases Network (TIBDN), Unity Health Toronto, and Public Health Canada.

Ontario COVID-19 Science Advisory Table

Maunder sits on the Mental Health Working Group on the Ontario COVID-19 Science Advisory Table.²³⁷

Sinai Health System

Maunder is employed by Sinai Health System at Mount Sinai Hospital. He is the Chair of Health and Behaviour, as well as Deputy Psychiatrist-in-Chief. His research focuses include working to "Shape public policy with a focus on disease prevention". ²³⁸

University of Toronto

Maunder is a Professor of Psychiatry at the University of Toronto. He previously studied the long-term impact of working during the SARS outbreak on hospital workers.²³⁹

Maunder's COVID-19 related research includes:

 He received \$498,900.00 from the Government of Canada via Canadian Institutes of Health Research (CIHR) from a COVID-19 Research Fund "that will go towards setting up the COVID-19 Mathematical Modeling Rapid Response Task Force, a network of experts

²³⁷ About Us. (2021, April 13). Ontario COVID-19 Science Advisory Table. Retrieved November 3, 2021, from https://covid19-sciencetable.ca/about/

²³⁸ Ahsan, H. (2019, January 3). *New Psychiatry Chairs Announced*. Sinai Health. Retrieved November 6, 2021, from https://www.sinaihealth.ca/news/new-psychiatry-chairs-announced/

²³⁹ Department of Psychiatry. University of Toronto. Retrieved November 6, 2021, from https://www.psychiatry.utoronto.ca/faculty/robert-maunder

- who will work to predict outbreak trajectories for the disease, measure public health interventions and provide real-time advice to policy-makers."^{240, 241, 242, 243}
- Maunder is a researcher for the COVID-19 Education Study (CCS-2) under the Toronto Invasive Bacterial Diseases Network at Mount Sinai Hospital, the University of Toronto, and Unity Health Toronto funded by Public Health Canada.²⁴⁴ The study is examining COVID-19 and teachers and school employees in Ontario.

²⁴⁰ Kalvapalle, R. (2020, March 31). *Nine U of T researchers receive federal grants for COVID-19 projects*. University of Toronto News. Retrieved November 6, 2021, from https://www.utoronto.ca/news/nine-u-t-researchers-receive-federal-grants-covid-19-projects

²⁴¹ Canadian Institutes of Health Research. (2021, May 5). *Government of Canada funds 49 additional COVID-19 research projects – Details of the funded projects*. Government of Canada. Retrieved November 6, 2021, from

 $[\]frac{\text{https://www.canada.ca/en/institutes-health-research/news/2020/03/government-of-canada-funds-49-additional-covid-19-research-projects-details-of-the-funded-projects.html}{}$

²⁴² Maunder, R. (2021, August 25). *Declaration of Interest - Robert Maunder.* Ontario COVID-19 Science Advisory Table. Retrieved November 6, 2021, from

 $[\]underline{\text{https://covid19-sciencetable.ca/wp-content/uploads/2021/03/Maunder-Declaration-of-Interest_Mental-Health-Working-Group_Robert-Maunder_20210825.pdf}$

²⁴³ Maunder, R. (2021, March 25). *Declaration of Interest - Robert Maunder*. Ontario COVID-19 Science Advisory Table. Retrieved November 6, 2021, from

 $[\]underline{\text{https://covid19-sciencetable.ca/wp-content/uploads/2021/03/Maunder-Declaration-of-Interest_Mental-Health-Working-Group_Robert-Maunder_20210325,pdf$

²⁴⁴ COVID-19 Education Study (CCS-2). Toronto Invasive Bacterial Diseases Network. Retrieved November 25, 2021, from http://www.tibdn.ca/covid-19/education

Allison McGeer

Allison J. McGeer is a Professor in Laboratory Medicine and Pathobiology at the Dalla Lana School of Public Health at the University of Toronto in Ontario, Canada. She is also an Infectious Disease Specialist and Senior Clinician Scientist at the Lunenfeld-Tanenbaum Research Institute of the Sinai Health System in Toronto. She has a research interest in adult immunization and emerging issues.

Since February 2020, she has been working on research related to the prevention and management of COVID-19. McGeer has been a member of Canada's National Advisory Committee on Immunization (NACI).²⁴⁵

Association of Medical Microbiology and Infectious Disease

McGeer presented at the 2021 Annual Conference for the Association of Medical Microbiology and Infectious Disease (AMMI) Canada and the Canadian Association for Clinical Microbiology and Infectious Diseases (CACMID). She received the John G. FitzGerald – CACMID Outstanding Microbiologist Award.²⁴⁶

Canadian Advisory Group on Antimicrobial Resistance

McGeer is a member of the Canadian Advisory Group on Antimicrobial Resistance. Fellow members include Scott Weese, Andrew Morris and John Conly.²⁴⁷

COVID-19 Expert Panel

McGeer is a member of the COVID-19 Expert Panel. It is described as a "multidisciplinary science expert panel" created to advise the Chief Scientific Advisor, Dr. Mona Nemer, "on the latest scientific developments relevant to COVID-19. This information will assist the CSA in providing current and cross-disciplinary advice to the Prime Minister [Justin Trudeau] and government."²⁴⁸

²⁴⁵ Public Health Ontario. *Ontario Immunization Advisory Committee (OIAC)*. Retrieved November 9, 2021, from https://www.publichealthontario.ca/en/about/our-organization/external-advisory-committees/oiac

²⁴⁶ Final Program - 2021 Annual Conference. AMMI. Retrieved January 8, 2022, from https://www.ammi.ca/Content/2021%20Final%20Program_FINAL.pdf

²⁴⁷ Expert Advisory Group on Antimicrobial Resistance (EAGAR) - Membership. (2021, June 11). Government of Canada. https://archive.ph/T5QcZ

²⁴⁸ Communications and Marketing Branch. (2021, January 14). *COVID-19 Expert Panel*. Government of Canada. Retrieved November 29, 2021, from https://archive.ph/9FGfX

National Advisory Committee on Immunization

She is also a former member of the National Advisory Committee on Immunization (NACI), the group responsible for approving COVID-19 vaccine products for use in Canada.

McGeer explained that NACI deliberations to approve COVID-19 vaccines can't be available to the public because "has nothing like the budget or staff that would be needed" to do so, and despite the fact that the need for the agency to "gather and evaluate the available data relevant to vaccines," she claims "they are not adequately resourced for rapid and comprehensive scientific assessment."²⁴⁹

National Collaborating Centre for Infectious Diseases

McGeer is a Partner at the National Collaborating Centre for Infectious Diseases. The centre is hosted at the University of Manitoba, and receives funding from the Public Health Agency of Canada.²⁵⁰

Ontario COVID-19 Science Advisory Table

McGeer is a member of the Ontario COVID-19 Science Advisory Table, which is hosted and funded by the Dalla Lana School of Public Health at the University of Toronto and Public Health Ontario.²⁵¹

Ontario Immunization Advisory Committee

McGeer is a member of the Ontario Immunization Advisory Committee (OIAC) under Public Health Ontario.²³⁸

Sinai Health System

McGeer is an Infectious Disease Specialist and Senior Clinician Scientist at the Lunenfeld-Tanenbaum Research Institute of the Sinai Health System in Toronto, Ontario. The bottom of the McGeer's staff directory page carries a message bar reading "This website has been made possible through an unrestricted educational grant from Pfizer Canada Inc."

²⁴⁹ Semeniuk, I. (2021, May 11). Once a little-known health body, NACI finds itself in the pandemic spotlight over COVID-19 vaccine debate. The Globe and Mail. Retrieved November 9, 2021, from https://archive.ph/OZ89j

²⁵⁰ Partners. National Collaborating Centre for Infectious Diseases. Retrieved January 16, 2022, from https://archive.ph/CC1RX

²⁵¹ Ontario COVID-19 Science Advisory Table. (2021, April 13). *About Us.* Retrieved November 3, 2021, from https://covid19-sciencetable.ca/about/

²⁵² Mount Sinai Hospital Department of Microbiology. *Staff Directory: Allison McGeer.* Mount Sinai Hospital. Retrieved November 11, 2021, from https://archive.ph/SrhEb

In her role at SHS, McGeer acted as a Local Principal Investigator for the "CONvalescent Plasma for Hospitalized Adults With COVID-19 Respiratory Illness" (CONCOR-1) study, funded by Canadian Blood Services, Héma-Québec, University of Toronto (Toronto COVID-19 Action Initiative 2020), Université de Montréal, Canadian Institutes of Health Research COVID-19 May 2020 Rapid Research Funding Opportunity, Ontario COVID-19 Rapid Research Fund, Fondation du CHU Ste-Justine, Ministère de l'Économie et de l'Innovation du Québec, Fonds de Recherche du Québec, University Health Network Emergent Access Innovation Fund, Sunnybrook Health Sciences Centre (University Health Academic Health Science Centre Alternative Funding Plan; Sunnybrook Health Sciences Centre Foundation), Saskatchewan Ministry of Health, University of Alberta Hospital Foundation, Alberta Health Services COVID-19 Foundation Competition, Fondation du CHUM, Ottawa Hospital Academic Medical Organization, Ottawa Hospital Foundation COVID-19 Research Fund, Sinai Health System Foundation, and McMaster University.

University of Toronto

McGeer is a Professor in Laboratory Medicine and Pathobiology at the Dalla Lana School of Public Health at the University of Toronto. Her research interests are "clinical effectiveness, health services delivery, health care system, surveillance for infectious diseases, population and public health".

Relevant studies include:

- December 23, 2020: Influenza Vaccine Effectiveness Against All-Cause Mortality Following Laboratory-Confirmed Influenza in Older Adults, 2010-2011 to 2015-2016 Seasons in Ontario, Canada²⁵⁴
 - Funded by the Canadian Institutes of Health Research (CIHR) and Public Health Ontario
 - McGeer reported Conflicts of Interest due to receiving "grants and personal fees" from Sanofi Pasteur and Merck; personal fees from GlaxoSmithKline; and grants from Seqirus

²⁵³ Bégin, P., Callum, J., Jamula, E., Cook, R., Heddle, N. M., Tinmouth, A., Zeller, M. P., Beaudoin-Bussières, G., Amorim, L., Bazin, R., Loftsgard, K. C., Carl, R., Chassé, M., Cushing, M. M., Daneman, N., Devine, D. V., Dumaresq, J., Fergusson, D. A., Gabe, C., Glesby, M. J., ... Arnold, D. M. (2021). *Convalescent plasma for hospitalized patients with COVID-19: an open-label, randomized controlled trial.* Nature medicine, 27(11), 2012–2024. https://archive.ph/5vINR

²⁵⁴ Chung, H., Buchan, S. A., Campigotto, A., Campitelli, M. A., Crowcroft, N. S., Dubey, V., Gubbay, J. B., Karnauchow, T., Katz, K., McGeer, A. J., McNally, J. D., Mubareka, S., Murti, M., Richardson, D. C., Rosella, L. C., Schwartz, K. L., Smieja, M., Zahariadis, G., & Kwong, J. C. (2020). *Influenza Vaccine Effectiveness Against All-Cause Mortality Following Laboratory-Confirmed Influenza in Older Adults, 2010–2011 to 2015–2016 Seasons in Ontario, Canada.* Clinical Infectious Diseases, 73(5), e1191–e1199. https://doi.org/10.1093/cid/ciaa1862

- August 27, 2021: Neutralizing antibody responses to SARS-CoV-2 variants in vaccinated Ontario long-term care home residents and workers^{255, 256}
 - McGeer discloses that she had received "investigator-initiated research grants from Pfizer, Inc, and funds for participation in advisory boards from Pfizer and Moderna."
- September 2, 2021: Evaluation of the SARS-CoV-2 Antibody Response to the BNT162b2 Vaccine in Patients Undergoing Hemodialysis²⁵⁷
 - McGeer disclosed that she received funding from Pfizer, Merck, Medicago, Moderna, Janssen, GlaxoSmithKline, and AstraZeneca.

²⁵⁵ Abe, K. T., Hu, Q., Mozafarihashjin, M., Samson, R., Manguiat, K., Robinson, A., Rathod, B., Hardy, W. R., Wang, J. H., Iskilova, M., Pasculescu, A., Fazel-Zarandi, M., Li, A., Paterson, A., Chao, G., Green, K., Gilbert, L., Barati, S., Haq, N., . . . Gingras, A. C. (2021). *Neutralizing antibody responses to SARS-CoV-2 variants in vaccinated Ontario long-term care home residents and workers.* medRxiv. Preprint. https://doi.org/10.1101/2021.08.06.21261721

²⁵⁶ Ireland, N. (2021, September 28). *COVID-19 vaccine boosters recommended for long-term care residents, national advisory committee says.* CBC News. Retrieved November 20, 2021, from https://archive.ph/NXtRs

²⁵⁷ Yau, K., Abe, K. T., Naimark, D., Oliver, M. J., Perl, J., Leis, J. A., Bolotin, S., Tran, V., Mullin, S. I., Shadowitz, E., Gonzalez, A., Sukovic, T., Garnham-Takaoka, J., de Launay, K. Q., Takaoka, A., Straus, S. E., McGeer, A. J., Chan, C. T., Colwill, K., . . . Hladunewich, M. A. (2021). Evaluation of the SARS-CoV-2 Antibody Response to the BNT162b2 Vaccine in Patients Undergoing Hemodialysis. JAMA Network Open, 4(9), e2123622. https://doi.org/10.1001/jamanetworkopen.2021.23622

Kwame McKenzie

Dr. Kwame McKenzie, MD, is a psychiatrist with a focus on the social causes of illness and the development of effective, equitable social policy and health systems.

As a policy advisor, clinician and academic with over 250 papers, 5 books, and numerous awards, he has worked across a broad spectrum to improve population health and health services for three decades.

Dr. McKenzie has set up award-winning services. In addition to developing health policy for governments, he continues to see patients and train clinicians and researchers. Dr. McKenzie has international experience in Africa, Europe, the Caribbean and United States.

He provided no information regarding Conflicts of Interest in his solitary disclosure form to the Ontario COVID-19 Science Advisory Table, despite holding simultaneous conflicting positions and affiliations across various levels of government - including supra-national.²⁵⁸

Canadian Institutes of Health Research

McKenzie is a member of the Expert Advisory Panel on COVID-19 and Mental Health at the Canadian Institutes of Health Research (CIHR).²⁵⁹

Centre for Addiction and Mental Health

McKenzie is the Director of Health Equity at the Centre for Addiction and Mental Health (CAMH).

The CAMH is funded to the tune of millions of dollars by pharmaceutical companies including Pfizer, Johnson & Johnson, AstraZeneca, Eli Lilly and GlaxoSmithKline, and a long list of other individuals and organizations with pharmaceutical or globalist interests such as Canadian National Railway (a Bill Gates company), IBM, Coca Cola, Apple, Microsoft (a Bill Gates company), and even his media associates at the Toronto Star.²⁶¹

²⁵⁸ McKenzie, K. (2021). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/03/Declaration-of-Interest_Mental-Health-Working-Group_Kwame-McKenzie

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259 Canadian Institutes of Health Research (CIHR). (2020, September 30). COVID-19 and Near-Term Research: Expert Advisory Panel (EAP). Government of Canada. https://archive.ph/oz2au

²⁶⁰ Dr. Kwame McKenzie. CAMH. Retrieved January 23, 2022, from https://archive.ph/YtnSc

²⁶¹ Centre for Addiction and Mental Health. (2021, March 31). *CAMHF 2020–21 Annual Report Donor Listing*. Retrieved December 3, 2021, from https://www.camh.ca/-/media/files/camhf-2020-21-annual-report-donor-listing.pdf

Government of Canada

Employment and Social Development Canada

McKenzie is a member of the National Advisory Council on Poverty.²⁶²

Health Canada

McKenzie is a Co-chair of the Expert Task Force on Substance Misuse under Health Canada. 263

He is also a member of the Minister of Health's Covid-19 Testing and Tracing Advisory panel alongside Kieran Moore, Chief Medical Officer of Health for Public Health Ontario.²⁶⁴ The panel's report concluded that among other factors, teacher's vaccination status must be taken into account when developing and implementing school-based testing and tracing policies.²⁶⁵

Ontario COVID-19 Science Advisory Table

McKenzie is on the Mental Health Working Group of the Ontario COVID-19 Science Advisory Table.²⁶⁶

Ontario Hospital Association

McKenzie formerly sat on the Board of Directors of the Ontario Hospital Association, and on the Transition Planning Special Committee.^{253, 267}

Members of the OHA include SickKids, Clinical Trials Ontario (which has a Pfizer employee on its board),²⁶⁸ Ontario Health, Public Health Ontario, Sinai Health Foundation, St. Joseph's Healthcare Foundation, Honeywell, and Johnson Controls.²⁶⁹

²⁶² Employment and Social Development Canada. (2020, May 15). *Members of the National Advisory Council on Poverty.* Government of Canada. https://archive.ph/wMQsp

²⁶³ Health Canada. (2021, August 13). Expert Task Force on Substance Use. Government of Canada.

 $[\]frac{\text{https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/expert-task-force-substance-use.html \# a 3}{\text{https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/expert-task-force-substance-use.html \# a 3}{\text{https://www.canada.ca/en/health-canada/corporate/about-health-he$

²⁶⁴ Health Canada. (2021, March 12). School COVID-19 testing and screening optimization strategies. Government of Canada. https://archive.ph/0qkm5

²⁶⁵ Bogoch, I., Krajden, M., Longtin, J., McKenzie, K., Moore, K., Naylor, D., Pilla, D., Wilson, B., Yiu, V., Zelmer, J., Paish, S., Dhalla, I., Liu, M., Downer, M., Yan, T., Rotenberg, S., Rajesh, N. U., Cooper, J., & Arora, R. (2021). *Priority strategies to optimize testing and screening for primary and secondary schools*. Health Canada.

 $[\]underline{\text{https://www.canada.ca/content/dam/hc-sc/documents/services/drugs-health-products/covid19-industry/medical-devices/testing-screen } \underline{\text{inq-advisory-panel/reports-summaries/primary-secondary-schools-primary-secondary-schools-en.pdf}}$

²⁶⁶ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 23, 2022, from https://covid19-sciencetable.ca/about/#mckenzie-kwame

²⁶⁷ Special Committee: Transition Planning. Ontario Health Association. Retrieved January 23, 2022, from https://archive.ph/adPvR
²⁶⁸ 20/21 Annual Report. (2021, November 19). Clinical Trials Ontario.

https://www.ctontario.ca/cms/wp-content/uploads/2021/11/CTO-2021-Annual-Report_FINAL_11.19.21.pdf

²⁶⁹ OHA Members. Ontario Hospital Association. Retrieved January 23, 2022, from https://archive.ph/NSyem

Province of Ontario

McKenzie serves on the Ontario Health Data Council. 270

McKenzie was Chair of the Research and Evaluation Advisory Committee for the Universal Basic Income pilot program in Ontario.²⁷¹

He also served as a Human Rights Commissioner for Ontario. 272

United Nations

McKenzie was a Canadian Delegate to the United Nations High-level Political Forum, the "central platform for follow-up and review of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals".^{259, 273}

United Way

McKenzie has been a member of the board for United Way Toronto.²⁷⁴

University of Toronto

McKenzie is a Professor and the Co-Director of the Division of Equity Gender and Population in the Department of Psychiatry at the University of Toronto.²⁵³

Wellesley Institute

McKenzie is the CEO of the Wellesley Institute, a registered non-profit charity that "works in research and policy to improve health and health equity in the Greater Toronto Area through action on the social determinants of health." ²⁷⁵

The Institute is partnered with the Centre for Addiction and Mental Health (CAMH), Canadian Mental Health Association (CMHA), Children First Canada (sponsored by the Canadian Red Cross, TD Bank Group, TELUS, Shaw Communications, Cisco, and Global Public Affairs),²⁷⁶ and United

²⁷⁰ Ontario Health Data Council - Public Appointments Secretariat. (2021). Government of Ontario. https://archive.ph/0Ya2i

²⁷¹ Ontario Basic Income Pilot Helping Provide More Security and Opportunity. Province of Ontario. Retrieved January 23, 2022, from https://archive.ph/m5daM

²⁷² Attorney General. (2016, September 30). *Ontario Appoints Five New Human Rights Commissioners*. Province of Ontario. https://archive.ph/AogDM

²⁷³ High-Level Political Forum 2021 (HLPF 2021) ... Sustainable Development Knowledge Platform. United Nations. Retrieved January 23, 2022, from https://archive.ph/OqNeU

²⁷⁴ Kwame McKenzie. ISPS UK 2017. Retrieved January 23, 2022, from https://archive.ph/azSBD

²⁷⁵ About. Wellesley Institute. Retrieved January 23, 2022, from https://archive.ph/goAka

²⁷⁶ Donors & Partners. Children First Canada. Retrieved January 23, 2022, from https://archive.ph/h9pN6

Way (sponsored by Pfizer, Johnson & Johnson, Eli Lilly, Microsoft, and many other relevant corporate members).²⁷⁷

World Health Organization

McKenzie is a consultant with the World Health Organization on equity.

Media

In addition to his academic, policy and clinical work, Kwame has been a columnist for the Guardian, Times-online and the Toronto Star, as well as a past BBC Radio presenter.

Toronto Star

The Toronto Star provides funding to the Centre for Addiction and Mental Health (CAMH), creating a conflict of interest for McKenzie.

On December 6, 2021, he wrote an opinion piece titled "We need a strategy to avert vaccine inequity in racialized children." 278

²⁷⁷ United Way Partners. United Way. Retrieved January 23, 2022, from https://archive.ph/eGWez

²⁷⁸ McKenzie, K. (2021, December 6). *Opinion | We need a strategy to avert vaccine inequity in racialized children.* The Toronto Star. https://archive.ph/NG12A

Andrew Morris

Dr. Andrew Morris is a Canadian Specialist in Infectious Diseases, and a Professor of Medicine at the University of Toronto. He is the Director of the Antimicrobial Stewardship Program at the Sinai Health System and University Health Network.

He is Past Chair of the Antimicrobial Stewardship and Resistance Committee for the Association of Medical Microbiology and Infectious Diseases Canada and of the Antimicrobial Stewardship Committee for the Society for Hospital Epidemiology of America.

His academic interests overlap the fields of epidemiology, behaviour change techniques, implementation science, and quality improvement as they relate to antimicrobial use and resistance.

Dr. Morris has worked closely with regional, provincial, and federal governments and interprovincial organizations to help develop and coordinate antimicrobial stewardship efforts. He is widely sought as a speaker and consultant on antimicrobial stewardship, behaviour change, implementation, and quality improvement. He is an author of over 100 peer-reviewed publications.

Morris is notable in the COVID-19 pandemic due to his role on the Ontario COVID-19 Science Advisory Table. He reported no conflicts of interest, or competing interests, of any kind on any of his three declaration forms to the Table.^{279, 280, 281}

Education

Morris received his Bachelor of Sciences in 1990 and his MD in 1994, both from the University of Toronto.²⁸²

He trained in Internal Medicine at U of T, where he subsequently completed sub-specialty training in Infectious Diseases in 1999. He went on to complete a Master of Science degree in Epidemiology from the Harvard School of Public Health in 2000.

²⁷⁹ Morris, A. (2021, October 14). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Andrew-Morris_20211014.pdf

²⁸⁰ Morris, A. (2021, February 12). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Andrew-Morris.pdf

²⁸¹ Morris, A. (2021, May 26). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Andrew-Morris_20210526.pdf

²⁸² Dr. Andrew Morris. Critical Care Canada Forum. Retrieved January 26, 2022, from https://archive.ph/EFid0

Accreditation Canada

Morris was involved in the establishment of organizational practices for antimicrobial stewardship that were developed by Accreditation Canada (AC), where he chairs the Antimicrobial Stewardship Working Group.^{283, 284}

Association of Medical Microbiology and Infectious Diseases Canada

Morris is the past chair of the Antimicrobial Stewardship and Resistance Committee for the Association of Medical Microbiology and Infectious Diseases Canada (AMMI).

Canadian Advisory Group on Antimicrobial Resistance

Morris is a member of the Canadian Advisory Group on Antimicrobial Resistance. Fellow members include Scott Weese, Allison McGeer and John Conly.²⁸⁵

Health Standards Organization

Morris has been a member of the Health Standards Organization (HSO)'s Medication Management Technical Committee.

Ontario COVID-19 Science Advisory Table

Morris is member of the Ontario COVID-19 Science Advisory Table, and Co-Chair of the Drugs & Biologics Clinical Practice Guidelines Working Group.²⁸⁶

Hydroxychloroquine

In this role, Morris played a role in advocating against the use of hydroxychloroquine to treat COVID-19. In an interview with U of T News, he dismissed the notion outright. The article described the drug as "experimental", with Morris claiming "even the most evidence-based physicians have been swayed by the lure of hydroxychloroquine as a readily available treatment."

"It has turned out to be a total scam," he says. "It was clear there was no peer review, and no hard data on the benefit." The antimicrobial committee recommended overwhelmingly in mid-April against prescribing hydroxychloroquine, even for the sickest patients. They have tried to be

²⁸³ Meet an HSO Technical Committee Expert: Dr. Andrew Morris - Medication Management Technical Committee. (2017, October 16). HSO Health Standards Organization. https://healthstandards.org/news/tech-committee-expert-dr-andrew-morris/

²⁸⁴ Andrew Morris. SHS+UHN Antimicrobial Stewardship Program. Retrieved January 26, 2022, from https://www.antimicrobialstewardship.com/dr-andrew-morris

²⁸⁵ Expert Advisory Group on Antimicrobial Resistance (EAGAR) - Membership. (2021, June 11). Government of Canada. https://archive.ph/T5QcZ

²⁸⁶ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 26, 2022, from https://covid19-sciencetable.ca/about/#morris-andrew

cautious in their recommendations because, as Morris says, "None of the drugs available so far are designed specifically to treat COVID-19. The likelihood of a game-changing treatment at this point in time is incredibly small." ²⁸⁷

Remdesivir

Morris and colleague Peter Wu co-authored a paper on remdesivir for treatment of COVID-19, stating that its use may reduce recovery time but has no effect in mortality, or benefit in critically ill patients.²⁸⁸

Public Health Agency of Canada

Prior to the COVID-19 pandemic, Morris had been doing work on behalf of the Public Health Agency of Canada, along with Gerry Wright, to develop a pan-Canadian network to tackle antimicrobial-resistant infections.²⁸⁹

In February, 2021, Morris testified to the Standing Committee on Health in the House to Commons that COVID-19 is a drug-resistant infection.

Royal College of Physicians and Surgeons of Canada

Morris is also the Chair of the Specialty Committee of Infectious Diseases with the Royal College of Physicians and Surgeons of Canada.

Sinai Health System and University Health Network

Dr. Morris joined the Division of Infectious Diseases in the Department of Medicine at Mount Sinai Hospital, University Health Network and University of Toronto in 2007 as an Associate Professor.

Morris is the founding Director of the Antimicrobial Stewardship Program at Sinai Health System and University Health Network, formed in 2009.²⁹⁰

Society for Hospital Epidemiology of America

He is currently Chair of the Antimicrobial Stewardship Committee for the Society for Healthcare Epidemiology of America (SHEA). SHEA received \$50,000.00 in funding from Pfizer for a project

²⁸⁷ Varner, C. (2020, May 1). How medical experts are deciding which treatments should be used for COVID-19: U of T expert. University of Toronto News. https://archive.ph/XhiHC

²⁸⁸ Wu, P. E., & Morris, A. M. (2021). *Remdesivir for patients with COVID-19*. Canadian Medical Association Journal, 193(4), E125–E125. https://doi.org/10.1503/cmaj.202505

²⁸⁹ 43rd Parliament, 2nd Session. (2021). Standing Committee on Health. House of Commons Canada. https://archive.ph/WKtCj

²⁹⁰ Our Team. (2020). SHS-UHN Antimicrobial Stewardship Program. https://archive.ph/PKTpQ

titled "SHEA Antimicrobial Stewardship Education Program: Transforming Practice, Improving Care". 291, 292

University of Toronto

Morris is a Professor of Medicine in infectious diseases at the University of Toronto.²⁹³

²⁹¹ SHEA Antimicrobial Stewardship Education Program: Transforming Practice, Improving Care. (2014, September 1). Pfizer.

https://archive.ph/Qqhwf
²⁹² Doyle-Scharff, M., Power, E., Webster, W., Gallis, H., & Hong, A. (2012, November 9). *Pfizer Medical Education Group Request for* Proposals (RFP): Bacterial Infections External Review Panel. Pfizer; Wayback Machine. $\underline{\text{http://web.archive.org/web/20211130100544/https://cdn.pfizer.com/pfizer.com/erp_bacterial_infections.pdf?t7.Vv9hZf0L_ZWYWcJHsfx}$ CYeTbqGblJ

293 Andrew Morris. University of Toronto. Retrieved January 26, 2022, from https://archive.ph/YMV30

Kumar Murty

Professor Vijaya Kumar Murty, PhD, FRSC, FNAS, is a contributor to the Ontario COVID-19 Science Advisory Table.

Ontario COVID-19 Science Advisory Table

While he is not listed on the About Us page, Murty is an external contributing member of the Ontario COVID-19 Science Advisory Table. He co-authored an October 2021 science brief titled "COVID-19 Vaccine Confidence in Ontario and Strategies to Support Capability, Opportunity, and Motivation Among at Risk Populations".²⁹⁴

University of Toronto

Murty is a Professor of Mathematics, and has twice been Chair of the Department of Mathematics at the University of Toronto.²⁹⁵

Fields Institute for Research in Mathematical Sciences

Murty became the Director of the Fields Institute for Research in Mathematical Sciences in 2019. ²⁹⁶ The Fields Institute is advocating for the creation of "smart villages", research for which Murty has received funding from U of T.²⁹⁷

Funding

Canadian Institutes of Health Research

Murty received a \$666,667.00 grant from the Canadian Institutes of Health Research (CIHR) for the purpose of creating "the COVID-19 Mathematical Modeling Rapid Response Task Force, a network of experts who will work to predict outbreak trajectories for the disease, measure public health interventions and provide real-time advice to policy-makers." ²⁹⁸

²⁹⁴ Barrett, K. A., Feldman, J., Trent, J., Weerasinghe, A., Lebovic, G., Yan, S., Desveaux, L., Presseau, J., Khenti, A., Perkhun, A., Bodmer, N. S., Born, K. B., Jüni, P., & Murty, V. K. (2021). *COVID-19 Vaccine Confidence in Ontario and Strategies to Support Capability, Opportunity, and Motivation Among at Risk Populations*. https://doi.org/10.47326/ocsat.2021.02.471.0

²⁹⁵ About. (2017, February 5). V. Kumar Murty. https://archive.ph/mUPvV

²⁹⁶ Berzunza, E. (2019, May 9). *Professor Kumar Murty is selected as the next Director of the Fields Institute*. Fields Institute for Research in Mathematical Sciences. https://archive.ph/Y4PDZ

²⁹⁷ Ronnie. (2021, April 25). *Vijaya Kumar Murty, PerfectCloudIO, Smart Villages & Covid Restrictions*. Canuck Law. https://archive.ph/NK8N7

²⁹⁸ Murty, K. (2021). *Declaration of Interest External Author Form.* Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/10/Declaration-of-Interest Authors V-Kumar-Murty 20211008.pdf

Natural Sciences and Engineering Research Council of Canada

Murty received \$3,000,000.00 from the Natural Sciences and Engineering Research Council of Canada (NSERC) through their Emerging Infectious Diseases Modelling Initiative (EIDMI), to "bridge the gap between mathematical research and real public health issues. The team will seek to produce models that are effective, practical and reliable for applications to public health issues for COVID-19 as well as boost Canada's future pandemic preparedness." 299

University of Toronto

Murty received a portion of \$1.23 million in funding from the University of Toronto's Connaught Fund through their Global Challenge Award. The project is called "Scalable architecture for smart villages." The team is comprised of U of T political science and law researchers, as well as collaborators from Process Research Ortech Inc., the University of California, Berkeley, Stanford University, the government of India, and the Aeronautical Development Agency, Bangalore. 300

Ventures

Murty has launched two companies. The first, Prata Technologies, is not currently active. 301

The second, PerfectCloud, is a cloud-based digital identity company headquartered in Toronto, Ontario with offices in New York, United States and New Delhi, India. Dr. Murty is a co-founder and CTO since 2007.³⁰²

In a critical commentary on Murty's perceived conflicts of interest, Canuck Law opines that, "First, by promoting the doomsday computer modelling as fact, he can convince the Ontario Government (and elsewhere) to impose more restrictions. That means more people are stuck at home, and more people will be looking at computer services. Second, by pushing the "Smart Villages" initiative, Murty is able to grow the market. In order to connect people the way he wants, they will need digital hookups, like the kinds of services that Perfect Cloud offers." 290

The company's website is no longer online, but is available via the Wayback Machine.

²⁹⁹ Government of Canada. (2021, April 9). *Funding Decisions - Emerging Infectious Diseases Modelling Initiative*. NSERC. https://archive.ph/ECJnT

³⁰⁰ Robinson, J. (2017, November 13). Connaught Global Challenge Award: Five U of T teams share \$1.23 million in funding. University of Toronto News. https://archive.ph/IC79W

³⁰¹ Federal Corporation Information - 687160-7 - Online Filing Centre - Corporations Canada - Corporations - Innovation, Science and Economic Development Canada. Government of Canada. Retrieved January 23, 2022, from https://archive.ph/PpfXw
³⁰² Identity and Access Management Solutions with Encryption | Cloud Data Security | PerfectCloud. (2021, April 24). PerfectCloud; Wayback Machine. https://web.archive.org/web/20210424233458/https://perfectcloud.io/about-us/

Christopher Mushquash

Dr. Christopher Mushquash is a registered clinical psychologist and Canada Research Chair in Indigenous Mental Health and Addiction, with expertise in rural and northern clinical practice and the development of culturally appropriate interventions for mental health and addiction difficulties in First Nations children, adolescents, and adults.

He is an academic researcher and Indigenous scholar who was born and raised in rural Northwestern Ontario. He is Ojibway, and a member of Pays Plat First Nation.

Education

Mushquash completed his pre-doctoral residency in the Faculty of Medicine at the University of Manitoba, specializing in rural and northern clinical practice and his Ph.D. in clinical psychology in the Department of Psychology and Neuroscience at Dalhousie University in 2011.³⁰³

Canada Foundation for Innovation

Mushquash sits on the board of directors for the Canada Foundation for Innovation. 304, 305

The Government of Canada awarded \$28 million in funding for the CFI to distribute to COVID-19 related research projects, including the development of COVID-19 vaccines, sequencing, cardiovascular impact analysis, 3D artificial intelligence capture technology to enforce "social distancing" measures, and wastewater testing. Grants were awarded to researchers working with the University of British Columbia, IWK Health Centre, Dalhousie University, Canadian Center for Vaccinology and Queen Elizabeth II Health Sciences Centre, among others. 306, 307, 308, 309

³⁰³ Executive team. Lakehead University. Retrieved January 26, 2022, from https://archive.ph/f9hCz

³⁰⁴ About. Dr. Christopher Mushquash, Ph.D., C.Psych. Retrieved January 27, 2022, from https://archive.ph/2WiR2

³⁰⁵ Leader in Indigenous health joins CFI Board. (2019, October 8). Canada Foundation for Innovation. https://archive.ph/ymC0t

³⁰⁶ Seto, C. (2020, November 10). Safe facilities will help deliver effective COVID-19 vaccines in eastern Canada. Canada Foundation for Innovation. https://archive.ph/qBCIA

³⁰⁷ Bertrand, M. (2020, November 6). *Ensuring Canadian researchers are well equipped to tackle the pandemic.* Canada Foundation for Innovation. https://archive.ph/3MW8U

³⁰⁸ Exceptional Opportunities Fund – COVID-19 (Universities). Canada Foundation for Innovation. Retrieved January 27, 2022, from https://archive.ph/vcSvi

³⁰⁹ Exceptional Opportunities Fund – COVID-19 for colleges, polytechnics and Cégeps. CFI. Retrieved January 27, 2022, from https://archive.ph/Z1Ku1

Canadian Institutes of Health Research

He is currently the vice-chair of the Institute Advisory Board for the Canadian Institutes of Health Research (CIHR), Institute of Indigenous Peoples' Health.³¹⁰

Dilico Anishinabek Family Care

Dr. Mushquash is a registered clinical psychologist providing assessment, intervention, and consultation services for First Nations children, adolescents, and adults at Dilico Anishinabek Family Care. 311, 312

George Jeffrey Children's Centre

Mushquash joined the board of directors for the George Jeffrey Children's Centre in 2021.³¹³

Government of Canada

Mushquash is a Canada Research Chair in Indigenous Mental Health and Addiction.³¹⁴ The research chairs are funded by the Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council of Canada (NSERC), and Social Sciences and Humanities Research Council (SSHRC).³¹⁵

Lakehead University

Mushquash is an Associate Professor in the Department of Psychology at Lakehead University.²⁹⁶ His staff profile features a large, red message bar that reads "MANDATORY COVID-19 VACCINE PASSPORT and DAILY SCREENING".³¹⁶

He is Director of the school's Centre for Rural and Northern Health Research, whose website prominently displays a banner advertising the United Nations' Sustainable Development Goals.^{296,} 317

³¹⁰ Canadian Institutes of Health Research. (2017, December 15). *IIPH Institute Advisory Board Members*. Government of Canada. https://archive.ph/nGOLn

³¹ Dilico Anishinabek Family Care. (2021, May 5). *TONIGHT! Join Dr. Mushquash to learn stress and anxiety management strategies.* [Post]. Facebook.

 $[\]frac{https://www.facebook.com/DilicoAnishinabekFamilyCare/posts/tonight-join-dr-mushquash-to-learn-stress-and-anxiety-management-strategiesif-yo/2211315998999697/$

³¹² Contact. Dr. Christopher Mushquash, Ph.D., C.Psych. Retrieved January 27, 2022, from https://archive.ph/iKtja

³¹³ Board of Directors. George Jeffrey Children's Centre. Retrieved January 27, 2022, from https://archive.ph/zVrKA

³¹⁴ Christopher Mushquash. (2021, June 25). Canada Research Chairs. https://archive.ph/K8oS1

³¹⁵ Canada Research Chairs. (2022, January 14). Government of Canada. https://archive.ph/to9He

³¹⁶ Dr. Christopher Mushquash, C.Psych. Lakehead University. Retrieved January 26, 2022, from https://archive.ph/ZCWlc

³¹⁷ Centre for Rural and Northern Health Research. Lakehead University. Retrieved January 26, 2022, from https://archive.ph/HJsfG

Ontario COVID-19 Science Advisory Table

Mushquash is a member of the Ontario COVID-19 Science Advisory Table and Co-Chair of the Mental Health Working Group.³¹⁸

Ontario Psychological Association

Mushquash serves as a board member for the Ontario Psychological Association. 297, 319

Royal Society of Canada

In 2017, Mushquash was inducted in the Royal Society of Canada's College of New Scholars, Artists and Scientists.

Thunder Bay Regional Health Sciences Centre

Mushquash is also the President of Research at Thunder Bay Regional Health Sciences Centre and Chief Scientist at the Thunder Bay Regional Health Research Institute.^{311, 320}

University of Ontario

Mushquash is an Adjunct Professor in the Faculty of Social Science and Humanities at the University of Ontario Institute of Technology.²⁹⁶

COVID-19

Advocacy for School Funding

Mushquash was a speaker at a September 2020 "Kids in Crisis Town Hall" event hosted online by Children's Health Coalition, a group "calling on the Ontario government to invest \$375 million in children's health and social care." ^{321, 322}

Fellow speakers included Rita Celli of CBC News, Dr. Peter Rosenbaum, Pediatrician and Childhood Development and Disability Expert; Dr. Javeed Sukhera, Child and Youth Psychiatrist; Ivona Novak, Co-chair of the Holland Bloorview Family Advisory Committee; Alex Munter, CEO of

³¹⁸ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 26, 2022, from https://covid19-sciencetable.ca/about/#mushquash-christopher-2

³¹⁹ Who We Are. Ontario Psychological Association. Retrieved January 27, 2022, from https://archive.ph/tU1mr

³²⁰ Walker, B. (2019, August 29). *Lakehead University receiving \$742k to support seven important research projects*. Lakehead University. https://archive.ph/obyzy

³²¹ The Children's Health Coalition. (2020, September 17). *Kids in Crisis Town Hall.* Vekeo. https://web.archive.org/web/20220127172942/https://vekeo.com/event/childrenshealthcoalition-61250-2/

³²² childrenshealthcoalition (@CHCOntario). (2020, September 16). Children are victims of a health-care crisis that the COVID-19 pandemic is only making worse. For some, it's a matter of life and death. Join our panel discussion and share your concerns. The #kidsincrisis Town Hall is Sept 17, 7PM - 8PM. [Tweet]. Twitter. https://archive.ph/ydNEZ

Children's Hospital of Eastern Ontario; and Christine Elliot, Deputy Premier of Ontario and Ontario Minister of Health.

The coalition membership includes SickKids, McMaster Children's Hospital, CHEO, London Health Sciences Centre Children's Hospital, Holland Bloorview Kids Rehabilitation Hospital, Kids Health Alliance, Children's Mental Health Ontario and Empowered Kids Ontario.³²³

Opioid Crisis

Mushquash co-authored a paper discussing the impact of the COVID-19 pandemic on opioid use treatment for Indigenous people. He argued that "expanded telemedicine" and "flexible prescriptions" had helped these patients and should continue after the pandemic.³²⁴

Research Funding

His research has been funded by the Canadian Institutes of Health Research (CIHR), the Social Sciences and Humanities Research Council (SSHRC), the Canada Research Chairs Program, the Canadian Foundation for Innovation, NeuroDevNet, Kids Brain Health Network, the Ontario Mental Health Foundation, Health Canada, the Ontario Neurotrauma Foundation, the Ontario Ministry of Health and Long-Term Care, and the Ontario Ministry of Research, Innovation and Science.

Awards

Dr. Mushquash is the recipient of numerous awards for his work, including the Canadian Psychological Association President's New Researcher Award, Lakehead University Outstanding Alumni Award, the Northwestern Ontario Visionary Award, the Ontario Ministry of Research, Innovation and Science Early Researcher Award, and the Clinical Psychological Association Clinical Section Scientist-Practitioner Early Career Award.

³²³ Lauren Ettin (@LaurenEttin). (2022, January 12). *Kids are headed back on Monday. We know that on balance, this is where they should be. And should stay. So everyone needs to make prudent decisions to keep community spread low. [Tweet].* Twitter. https://archive.ph/T9smE

³²⁴ Wendt, D. C., Marsan, S., Parker, D., Lizzy, K. E., Roper, J., Mushquash, C., Venner, K. L., Lam, A., Swansburg, J., Worth, N., Sorlagas, N., Quach, T., Manoukian, K., Bernett, P., & Radin, S. M. (2021). *Commentary on the impact of the COVID-19 pandemic on opioid use disorder treatment among Indigenous communities in the United States and Canada*. Journal of Substance Abuse Treatment, 121, 108165. https://doi.org/10.1016/j.jsat.2020.108165

Menaka Pai

Dr. Menaka Pai is a Canadian hematologist and thrombosis medicine physician in Ontario, Canada.

Education

Dr. Pai completed her medical training at McMaster University and the University of Toronto. She holds a Masters degree in Health Research Methodology from McMaster University.³²⁵

American Society of Hematology

Pai is Chair of the American Society of Hematology's Guideline Oversight Subcommittee. 326

Hamilton Health Sciences

Pai is a hematologist and thrombosis medicine physician, Head of Service for Benign Hematology at Hamilton Health Sciences, and Quality Lead for Transfusion Medicine in the Hamilton Regional Laboratory Medicine Program.³¹⁸

In her role at HHS, Pai acted as a Local Principal Investigator for the "CONvalescent Plasma for Hospitalized Adults With COVID-19 Respiratory Illness" (CONCOR-1) study, funded by Canadian Blood Services, Héma-Québec, University of Toronto (Toronto COVID-19 Action Initiative 2020), Université de Montréal, Canadian Institutes of Health Research COVID-19 May 2020 Rapid Research Funding Opportunity, Ontario COVID-19 Rapid Research Fund, Fondation du CHU Ste-Justine, Ministère de l'Économie et de l'Innovation du Québec, Fonds de Recherche du Québec, University Health Network Emergent Access Innovation Fund, Sunnybrook Health Sciences Centre (University Health Academic Health Science Centre Alternative Funding Plan; Sunnybrook Health Sciences Centre Foundation), Saskatchewan Ministry of Health, University of Alberta Hospital Foundation, Alberta Health Services COVID-19 Foundation Competition, Fondation du CHUM, Ottawa Hospital Academic Medical Organization, Ottawa Hospital Foundation COVID-19 Research Fund, Sinai Health System Foundation, and McMaster University.

³²⁵ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 27, 2022, from https://covid19-sciencetable.ca/about/#pai-menaka

³²⁶ Menaka Pai - McMaster Experts. McMaster University. Retrieved January 27, 2022, from https://archive.ph/QCpdm
327 Bégin, P., Callum, J., Jamula, E., Cook, R., Heddle, N. M., Tinmouth, A., Zeller, M. P., Beaudoin-Bussières, G., Amorim, L., Bazin, R.,
Loftsgard, K. C., Carl, R., Chassé, M., Cushing, M. M., Daneman, N., Devine, D. V., Dumaresq, J., Fergusson, D. A., Gabe, C., Glesby, M.

International Society on Thrombosis and Haemostasis

Pai received funding through McMaster University from the International Society on Thrombosis and Haemostasis (ISTH) to publish a Guideline on Thrombotic Thrombocytopenic Purpura (TTP). 328, 329, 330

McMaster University

Pai is an Associate Professor of Medicine at McMaster University, specializing in Hematology & Thromboembolism.^{331, 332} She was a speaker on the topic of COVID-19 and thrombosis at the McMaster International Review Course in Internal Medicine event in 2021.^{333, 334} She is also a member of the McMaster Centre for Transfusion Research (MCTR).³³⁵

Ontario COVID-19 Science Advisory Table

Pai is a member of the Ontario COVID-19 Science Advisory Table and Co-Chair of the Drugs & Biologics Clinical Practice Guidelines Working Group.³¹⁸

Scripps Health

Pai was an invited speaker at the 2020 Scripps MD Anderson Cancer Center's Clinical Hematology and Oncology Conference, where she spoke about thrombosis in intensive care patients. 336, 337

https://web.archive.org/web/20220127195500/https://www.scripps.org/sparkle-assets/documents/2020_hemonc_brochure_v5.pdf

J., ... Arnold, D. M. (2021). Convalescent plasma for hospitalized patients with COVID-19: an open-label, randomized controlled trial. Nature medicine, 27(11), 2012–2024. https://archive.ph/5vINR

³²⁸ Krolak, B. (2018, April 25). *ISTH Partners with McMaster University to Publish a Guideline on Thrombotic Thrombocytopenic Purpura*. International Society on Thrombosis and Haemostasis. https://archive.ph/XsK2Q

³²⁹ Pai, M. (2020, June). *Anemia and Heavy Menstrual Bleeding*. Ontario Regional Blood Coordinating Network. https://transfusionontario.org/wp-content/uploads/2020/06/Anemia-and-Heavy-Menstrual-Bleeding.pdf

³³⁰ Zheng, X., Vesely, S., Cataland, S., Coppo, P., Geldziler, B., Iorio, A., Matsumoto, M., Mustafa, R., Pai, M., Rock, G., Russell, L., Tarawneh, R., Valdes, J., & Peyvandi, F. (2020). *ISTH guidelines for the diagnosis of thrombotic thrombocytopenic purpura*. J Thromb Haemost, 18(10), 2486–2495. https://doi.org/10.1111/jth.15006

³³¹ Menaka Pai - McMaster Experts. McMaster University. Retrieved January 27, 2022, from https://archive.ph/QCpdm

³³² Menaka Pai, MSc MD FRCPC (@MPaiMD). Assoc Professor Hematology & Thromboembolism @McMasterU @HamHealthSci Bleeds, clots, transfusion, quality, guidelines, equity Wife, mom of 2 little boys [Profile]. Twitter. Retrieved January 27, 2022, from https://archive.ph/LYMPv

³³³ MIRCIM: McMaster International Review Course in Internal Medicine. (2021, June 14). *Prof. Menaka Pai invitation.* Facebook. https://web.archive.org/web/20220127200510/https://www.facebook.com/MIRCIMcourse/videos/155770989922716/

³³⁴ Speakers - Prof. Menaka Pai. Empendium. Retrieved January 27, 2022, from https://archive.ph/Dp34T

³³⁵ McMaster Centre for Transfusion Research. *Contact Us.* McMaster University. Retrieved January 27, 2022, from https://archive.ph/lK4EP

³³⁶ Pai, M. (2021, August 27). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://web.archive.org/web/20220108230011/https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Drugs-and-Biologics-Clinical-Practice-Guidelines-Working-Group_Menaka-Pai_20210827.pdf

³³⁷ Clinical Hematology and Oncology: 2020. (2020). Scripps.

Thrombosis and Atherosclerosis Research Institute

Pai is a member of the Thrombosis and Atherosclerosis Research Institute (TAARI). 338

Thrombosis Canada

Pai was paid by Thrombosis Canada to develop an "online thrombophilia educational tool." She also participated on the Planning Committee of a November 2015 event for TC and McMaster University called "Thrombosis Practice Pearls", which was sponsored by Bayer, Bristol-Myers Squibb, Pfizer, Boehringer Ingelheim, Sanofi, AstraZeneca, LEO Pharma, Medtronic, and Octapharma. 339

Wolters Kluwer

Pai co-authors articles pertaining to prophylaxis of venous thromboembolism for UpToDate, an online medical textbook published by Wolters Kluwer.^{329, 340}

Relationships with Pharmaceutical Companies

Pai received payment from Novartis for presentation of Medical Grand Rounds at Bluewater Health on September 11, 2019.^{329, 341} She has also received speakers bureau/honoraria funds from Bayer,³²² and has attended at least one advisory committee meeting for Pfizer.^{329, 342}

Her payments from Pfizer and Novartis are also described as "personal fees" in her conflict of interest disclosure for a study discussing vaccine-induced thrombocytopenia following COVID-19 vaccination.³⁴³

Pai held shares in Medtronic worth \$813.00 USD as of June 6, 2020, which she divested on June 8, 2020. Her husband held Medtronic shares worth \$16,300.00 USD as of June 6, 2020, which had not been divested at the time of her disclosure to the American Society of Hematology.^{334, 344}

³³⁸ Menaka Pai. TAARI. Retrieved January 27, 2022, from https://archive.ph/i4iuJ

³³⁹ Thrombosis Practice Pearls. (2015). Thrombosis Canada.

³⁴⁰ Patient education: Deep vein thrombosis (DVT) (Beyond the Basics). UpToDate. Retrieved January 27, 2022, from https://archive.ph/P6A1N

³⁴¹ Supplement 4: Disclosure of Interest Forms for Panelists. (2021, February 9).

https://ia601504.us.archive.org/9/items/advancesADV2020003763C-suppl5/advancesADV2020003763C-suppl4.pdf

³⁴² Contributor disclosures. UpToDate. Retrieved January 27, 2022, from https://archive.ph/6XqtC

³⁴³ Klok, F. A., Pai, M., Huisman, M. V., & Makris, M. (2021). *Vaccine-induced immune thrombotic thrombocytopenia*. The Lancet Haematology. https://doi.org/10.1016/s2352-3026(21)00306-9

³⁴⁴ Cuker, A., Tseng, E. K., Nieuwlaat, R., Angchaisuksiri, P., Blair, C., Dane, K., Davila, J., DeSancho, M. T., Diuguid, D., Griffin, D. O., Kahn, S. R., Klok, F. A., Lee, A. I., Neumann, I., Pai, A., Pai, M., Righini, M., Sanfilippo, K. M., Siegal, D., Skara, M., ... Schünemann, H. J. (2021). *American Society of Hematology 2021 guidelines on the use of anticoagulation for thromboprophylaxis in patients with COVID-19.* Blood advances, 5(3), 872–888. https://doi.org/10.1182/bloodadvances.2020003763

Media

Pandemic Politics

Pai shared a Tweet stating "OMG there is no food shortage... we're just so accustomed to abundance we're not used to seeing even the occasional empty shelf. You know what there IS a shortage of? CLEAN WATER in so many First Nations communities. Which-unlike eating in a restaurant- actually is a human right," in protest against the Freedom Convoy 2022 and related food shortages resulting from COVID-19 related supply chain interruptions. 325

She also indicated support for Neil Young after he presented an ultimatum to Spotify, demanding they remove the Joe Rogan Experience from their platform due to frequent alleged "misinformation" following viral interviews with Robert Malone and Peter McCullough. 345, 346



COVID-19 Vaccines

In an April 2021 article, Pai insisted that the benefits of the Oxford-AstraZeneca ChAdOx1 nCoV-19 COVID-19 vaccine product outweighed the risk of vaccine-induced thrombocytopenia (VITT),

³⁴⁵ The Joe Rogan Experience. (2021, December 13). #1747 - Dr. Peter A. McCullough. Spotify. https://archive.ph/tTyEu

³⁴⁶ The Joe Rogan Experience. (2021, December 31). #1757 - Dr. Robert Malone, MD. Spotify. https://archive.ph/F5N5X

arguing that every decision carries risk. She argues that the risk of blood clotting resulting from COVID-19 infection is higher than from the injection.³⁴⁷

In November 2021, she advocated strongly for 5-11 year olds to receive a COVID-19 injection. She described it as "the socially responsible thing to do," claiming that it's a matter of "getting vaccinated" to protect each other - despite the fact that by the time of publication, it was a matter of common knowledge and robust scientific consensus that none of the available products effectively prevent or reduce community transmission of the SARS-CoV-2 pathogen. 348, 349, 350, 351, 352 She described the products as "safe and effective".

She also insinuated COVID-19 is a "vaccine-preventable disease", which the Government of Canada itself refutes.³⁵⁴

In a January 12, 2022 article for McMaster's "Business and Economy" blog, she expressed that "we are slowly (too slowly) vaccinating the world, which will ultimately ensure that the virus is kept in check." 355

³⁴⁷ Vohra-Miller, S. (2021, April 19). *Understanding the blood clot issue behind the AstraZeneca vaccine and its safety.* Hamilton Health Sciences. https://archive.ph/RsHWn

³⁴⁸ Mallapaty, S. (2021). *COVID vaccines cut the risk of transmitting Delta — but not for long*. Nature. https://doi.org/10.1038/d41586-021-02689-y

³⁴⁹ חיסון קבלת לאחר מאומתים קב בקרב ' הראשונים המחוסנים. Retrieved January 27, 2022, from https://www.gov.il/BlobFolder/reports/vaccine-efficacy-safety-follow-up-committee/he/files-publications-corona-two-dose-vaccination-data.pdf

<u>-data.pdf</u>

350 Callaway, E. (2021). *COVID vaccine boosters: the most important questions*. Nature, 596(7871), 178–180. https://doi.org/10.1038/d41586-021-02158-6

³⁵¹ Hains, T. (2021, August 6). CDC Director: Vaccines No Longer Prevent You From Spreading COVID. Real Clear Politics. https://archive.ph/EducC

³⁵² The Deprogram. (2021, August 8). *CDC Director Rochelle Walensky tells Wolf Blitzer that COVID Vaccines won't prevent transmission*. YouTube. https://www.youtube.com/watch?v=TKFWGvvIVLI

³⁵³ Altruism, empathy and COVID vaccines for kids. (2021, November 22). Hamilton Health Sciences. https://archive.ph/YR3IL

³⁵⁴ Public Health Agency of Canada. (2021, July 22). *Diseases and conditions*. Government of Canada.

 $[\]underline{https://web.archive.org/web/20211104163241/https://www.canada.ca/en/public-health/services/diseases.html?vaccine-preventable}$

³⁵⁵ McMaster experts on key themes shaping our world in 2022. (2022, January 12). Brighter World; McMaster University. https://archive.ph/SwMSj

Justin Presseau

Justin Presseau is a Canadian epidemiologist and psychologist based in Ottawa, Ontario.

Education

Presseau studied at the University of Ottawa, graduating with his Bachelor of Arts in Psychology in 2005.³⁵⁶

He then attended the University of Aberdeen, completing his Masters of Research in 2007. He studied for his PhD in Psychology from 2007 - 2011.

British Psychology Society

Presseau is on the International Advisory Board of the British Journal of Health Psychology. 358, 359

Canadian Psychological Association

Presseau is chair of the Canadian Psychological Association's Health Psychology and Behavioural Medicine section.³⁶⁰

Implementation Science Journal

Presseau is an Associate Editor for the journal Implementation Science.³⁶¹

Newcastle University

Presseau was a Lecturer in Health Psychology at Newcastle University from 2012 - 2015. 362

Ontario COVID-19 Science Advisory Table

Presseau is a member of the Ontario COVID-19 Science Advisory Table and Chair of the Behavioural Science Working Group.³⁵³

³⁵⁶ Members - Justin Presseau. University of Ottawa. Retrieved January 27, 2022, from https://archive.ph/kcDco

³⁵⁷ Justin Presseau. ORCID. Retrieved January 27, 2022, from https://archive.ph/o5Ngg

³⁵⁸ British Journal of Health Psychology: Editorial Board. British Psychological Society. Retrieved January 27, 2022, from https://archive.ph/n2MHI

³⁵⁹ Justin Presseau | University of Ottawa | Canada. OMICS International. Retrieved January 27, 2022, from https://archive.ph/cHZnl 360 About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 27, 2022, from

https://covid19-sciencetable.ca/about/#presseau-justin-2

nttps://covidi9-sciencetable.ca/about/#presseau-justin-z

³⁶¹ Implementation Science. BioMed Central. Retrieved January 27, 2022, from https://archive.ph/xSFSk

³⁶² Local Research Time - Justin Presseau, PhD. (2013). Newcastle University. https://archive.ph/y8nTy

Ontario Immunization Advisory Committee

Presseau is a member of the Ontario Immunization Advisory Committee under Public Health Ontario.³⁶³

Ottawa Hospital

Presseau is a Scientist at the Ottawa Hospital Research Institute where he leads the Psychology and Health Research Group and is core faculty in the Centre for Implementation Research. He is the Scientific Lead for Knowledge Translation at the Ottawa Methods Centre SPOR Support Unit. 353, 364

Presseau received funding from the Ottawa Hospital Foundation via the COVID-19 Emergency Research Seed Fund as a Primary Investigator on a study investigating face touching behaviour. 365

University of Ottawa

Presseau is an Associate Professor in the School of Epidemiology and Public Health and the School of Psychology at the University of Ottawa.³⁵⁰

Research

Presseau's research program operates at the intersection between health psychology and implementation science. His research draws on behavioural science to understand factors that promote and undermine behaviour change in healthcare, and in patients and the general public. He has published over 100 peer-reviewed articles.

Funding

Presseau has received funding from a variety of institutions for his research, including the Canadian Institutes of Health Research (CIHR), BioCanRx, Canadian Blood Services, AMS Healthcare, Ontario SPOR Support Unit, Stem Cell Network, and The Ottawa Hospital Academic Medical Organization (TOMAHO).

³⁶³ Public Health Ontario. *Ontario Immunization Advisory Committee (OIAC)*. Retrieved November 10, 2021, from https://archive.ph/v0lp.l

³⁶⁴ Our Team. Ontario Health Research Institute. Retrieved January 27, 2022, from https://archive.ph/5ETYS

³⁶⁵ Presseau, J. (2020). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://web.archive.org/web/20220108230033/https://covid19-sciencetable.ca/wp-content/uploads/2020/10/Declaration-of-Interest_Science-Table_Justin-Presseau.pdf

³⁶⁶ Presseau, J. (2021). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://web.archive.org/web/20220108230018/https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Behavioural-Science-Working-Group_Justin-Presseau.pdf

Awards

Presseau is the recipient of early career awards from the UK Society for Behavioural Medicine, the International Society of Behavioral Medicine, and the European Health Psychology Society, and a mid-career award from the Canadian Psychological Association.³⁵³

Paula Rochon

Dr. Paula Rochon is a Canadian geriatrician.

Education

In 1983, Rochon completed her MD at McMaster University. She received her Masters in Public Health from the Harvard School of Public Health in 1990.³⁶⁷

American Geriatrics Society

Rochon sits on the Editorial Board of the Journal of the American Geriatrics Society. 368

Baycrest Health Sciences

Rochon is an Adjunct Scientist at the Kunin-Lunenfeld Centre for Applied Research and Evaluation in Baycrest Health Sciences.^{369, 370}

Canadian Academy of Health Sciences

Rochon was elected as a fellow of the Canadian Academy of Health Sciences in 2013.³⁷¹

Canadian Institutes of Health Research

Rochon is the Vice-Chair of the Canadian Institutes of Health Research (CIHR) Institute of Aging Advisory Board.³⁷²

Government of Canada

Rochon is a member of the Long-Term Care and COVID-19 Expert Advisory Panel for the Government of Canada.³⁷³

³⁶⁷ Paula Rochon, MD, MPH, FRCPC. Women's College Research Institute. Retrieved January 27, 2022, from https://archive.ph/kM2Hx
³⁶⁸ Editorial Board - Journal of the American Geriatrics Society - Wiley Online Library. American Geriatrics Society. Retrieved January 28, 2022, from https://archive.ph/BKFHm

³⁶⁹ Paula Rochon. ICES. Retrieved January 27, 2022, from https://archive.ph/PtqTD

³⁷⁰ Achievements & Accolades. Baycrest Health Sciences Centre. Retrieved January 27, 2022, from https://archive.ph/tOJNe

³⁷¹ CAHS Fellows Director. Canadian Academy of Health Sciences. Retrieved January 28, 2022, from https://archive.ph/Goh5d

³⁷² About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 27, 2022, from https://covid19-sciencetable.ca/about/#rochon-paula-2

³⁷³ Long-Term Care and COVID-19. (2020, October 30). Government of Canada. https://archive.ph/HR9XT

Institute for Clinical Evaluative Sciences

Rochon is a Senior Core Scientist at the Institute for Clinical Evaluative Sciences (ICES). 360, 362

Ontario COVID-19 Science Advisory Table

Rochon is a member of the Ontario COVID-19 Science Advisory Table and Chair of the Congregate Care Setting Working Group.³⁶⁵

Springer

Rochon sits on the Editorial Board for the Drugs & Aging Journal published by Springer.³⁷⁴

University Health Network

Rochon received an Innovation Grant from the Peter Munk Cardiac Center at the University Health Network, for a research project called "Analytic approaches to understanding Covid-19 infections and outcomes in the population". 375

University of Toronto

Rochon is a professor in the Department of Medicine and Institute of Health Policy, Management and Evaluation and is the inaugural Retired Teachers of Ontario Chair in Geriatric Medicine at the University of Toronto.^{362, 376}

Women's College Hospital

Rochon is a geriatrician, senior scientist and Vice-President of Research at Women's College Hospital in Toronto, Ontario. 360, 362, 365 The WCH is funded through the Women's College Hospital Foundation by CIBC, KPMG. RBC (Royal Bank of Canada), Brookfield, Cadillac Fairview, Scotiabank, TD Bank Group, BMO Financial Group, Deloitte, PricewaterhouseCoopers, the University of Toronto, Allergan, Amgen, Bayer, Bell Canada, Credit Suisse, Fidelity, IBM, Goldman Sachs, the Government of Canada, HSBC, LifeLabs, Pacific Blue Cross, Morgan Stanley, National Bank, Shoppers Drug Mart, Thomson Reuters, Tribute Pharmaceuticals, BlackRock, Ontario Teachers' Pension Plan, State Street, TELUS, and others. 377

³⁷⁴ Drugs & Aging. Springer. Retrieved January 28, 2022, from https://www.springer.com/journal/40266/editors

³⁷⁵ Rochon, P. (2021, May 27). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://web.archive.org/web/20220108230028/https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Congregate-Care-Setting-Working-Group_Paula-Rochon_20210527.pdf

³⁷⁶ Paula Rochon | Institute of Health Policy, Management and Evaluation. University of Toronto. Retrieved January 27, 2022, from https://archive.ph/Sv7wq

³⁷⁷ Donor Listings. Women's College Hospital Foundation. Retrieved January 27, 2022, from https://archive.ph/U1euv

Research

Dr. Rochon has a strong record of federal funding and has published more than 300 papers in peer-reviewed journals.

Rochon is part of a research group that received \$409,179.00 from the Canadian Institutes of Health Research for a wide-ranging study labelled "Improving Canadian Outcomes Research On the Novel SARS-CoV-2 using Analytics: the CORONA Consortium". 378

She is also participating in a study called "Finding the Right Balance? Implementing family presence policies in Ontario long-term care homes" funded by the CIHR and the Canadian Foundation for Healthcare Improvement.³⁶⁵

Awards

- Career Award Canadian Institutes of Health Research
- Dr. John Meyers Visiting Professor of Geriatric Medicine. University of Massachusetts Medical School
- Excellence in Leadership, Baycrest Rewards and Recognition Committee

³⁷⁸ Improving Canadian Outcomes Research On the Novel SARS-CoV-2 using Analytics: the CORONA Consortium. Canadian Institutes of Health Research; Government of Canada. Retrieved January 27, 2022, from https://archive.ph/b8FZM

Brian Schwartz

Dr. Brian Schwartz MD, MScCH, is a Canadian emergency and public health physician. He is employed as an Associate Professor in the Department of Family and Community Medicine and Dalla Lana School of Public Health, University of Toronto.

Education

Schwartz obtained his medical degree and Master of Science in Community Health from the University of Toronto in 2012.

Canadian Pandemic Influenza Preparedness Task Group

Schwartz has been a member of the Canadian Pandemic Influenza Preparedness Task Group since its inception. The group also includes Bonnie Henry, the Provincial Health Officer for the Province of British Columbia.³⁷⁹

College of Family Physicians of Canada

He received his certification in emergency medicine from and is a Fellow of the College of Family Physicians of Canada.

Group of 8 (G8) and 20 (G20)

Schwartz served as co-Incident Manager for health consequence management for the 2010 G8 Health System Coordination Committee.^{380, 381}

Ontario COVID-19 Science Advisory Table

Schwartz is Co-chair of the Ontario COVID-19 Science Advisory Table.³⁸² The Science Table is paid for by Schwartz's employers at the Dalla Lana School of Public Health and Public Health Ontario.

³⁷⁹ Henry, B on behalf of the Canadian Pandemic Influenza Preparedness Task Group. (2019). *Canadian pandemic influenza preparedness: Public health measures strategy*. Canada Communicable Disease Report, 45(6), 159–163. https://doi.org/10.14745/ccdr.v45i06a03

³⁸⁰ Schwartz, Brian. Dalla Lana School of Public Health. Retrieved January 25, 2022, from https://archive.ph/WhdSO

³⁸¹ 2010 G8 Summit SMDHU Preparedness & Response Plan. (2010, June). Simcoe Muskoka Health. https://www.simcoemuskokahealth.org/docs/default-source/topic-emergencyprep/q8_summit_plan

³⁸² About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 24, 2022, from https://covid19-sciencetable.ca/about/#schwartz-brian

He "provides executive leadership for PHO's public health science and population health programs including environmental and occupational health, health promotion, chronic disease and injury prevention, and research and ethics services. Previous portfolios include health protection, emergency preparedness, communicable diseases and infection prevention and control."

Ontario Ministry of Health and Long-term Care

Schwartz served as Scientific Advisor to the Emergency Management Branch of the Ontario Ministry of Heath and Long Term Care from 2004 to 2011.

Public Health Agency of Canada

Schwartz has attended meetings within Ontario related to pandemic preparedness, for which his expenses have been repaid by the Public Health Agency of Canada.³⁸³

Public Health Ontario

Schwartz is the Vice-President of Public Health Ontario, which co-funds the Ontario COVID-19 Science Advisory Table.³⁸⁴ He was Public Health Ontario's inaugural Chief of Emergency Management Support.

Sunnybrook Health Sciences Centre

Before entering public health Dr. Schwartz practiced emergency medicine for over 30 years in community and academic settings. He held the position of Director of the Sunnybrook Centre for Prehospital Care from 1996 to 2009, under the Sunnybrook Health Sciences Centre.³⁸⁵

University of Toronto

Schwartz is employed as an Associate Professor in the Department of Family and Community Medicine and Dalla Lana School of Public Health, University of Toronto.³⁷³

³⁸³ Schwartz, B. (2020). Declaration of Interest. Ontario COVID-19 Science Advisory Table.
https://covid19-sciencetable.ca/wp-content/uploads/2020/07/Declaration-of-Interest_Science-Table_Brian-Schwartz.pdf
384 Dr. Brian Schwartz. (2017). Public Health Ontario. https://archive.ph/RFmYf

³⁸⁵ Sunnybrook Center for Prehospital Medicine. Retrieved January 24, 2022, from https://www.prehospitalmedicine.ca/

Previous Pandemics and COVID-19 Preparedness

Schwartz played a leadership role in Ontario during two previous pandemic crises. He served as Vice-chair of the Ontario SARS Scientific Advisory Committee in 2003 and was Chair of the Scientific Response Team for the 2009 H1N1 pandemic.³⁸⁶

Pandemic preparedness documents, funded by the Canadian Institutes of Health Research (CIHR), include "Public health emergency preparedness: a framework to promote resilience".

He co-authored a May 2016 study finding that insufficient evidence existed to determine whether N95 masks were superior to surgical masks in protecting healthcare workers against acute respiratory infections.³⁸⁷

Schwartz has further contributed to studies discussing communication strategies during public health crises.³⁸⁸

As far back as 2015, Schwartz authored a study that concluded that the "evidence base for public health emergency preparedness (PHEP) is weak" alongside Bonnie Henry and Eileen de Villa.³⁸⁹

Climate Change

Schwartz has also contributed to research on communications strategies around climate change and extreme weather, funded by Public Health Ontario.³⁹⁰

³⁸⁶ Zoutman, D., & Schwartz, B. (2003). *The Ontario SARS The Ontario SARS Scientific Advisory*. Government of Ontario. http://www.archives.gov.on.ca/en/e_records/sars/hearings/03Wed.pdf/Wed_12_45_The_Ontario_SARS_Scientific_Advisory_Committee.pdf

³⁸⁷ Smith, J. D., MacDougall, C. C., Johnstone, J., Copes, R. A., Schwartz, B., & Garber, G. E. (2016). *Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis.* Canadian Medical Association Journal, 188(8), 567–574. https://doi.org/10.1503/cmaj.150835

³⁸⁸ Sanford, S., Schwartz, B., & Khan, Y. (2020). *The role of tacit knowledge in communication and decision-making during emerging public health incidents*. International Journal of Disaster Risk Reduction, 50, 101681. https://doi.org/10.1016/j.ijdrr.2020.101681
389 Khan, Y., Fazli, G., Henry, B., de Villa, E., Tsamis, C., Grant, M., & Schwartz, B. (2015). *The evidence base of primary research in public health emergency preparedness: a scoping review and stakeholder consultation*. BMC Public Health, 15(1). https://doi.org/10.1186/s12889-015-1750-1

³⁹⁰ MacIntyre, E., Khanna, S., Darychuk, A., Copes, R., & Schwartz, B. (2019). Evidence synthesis - Evaluating risk communication during extreme weather and climate change: a scoping review. Synthèse des données probantes - Évaluation de la communication des risques en présence de changements climatiques et de phénomènes météorologiques extrêmes : examen de la portée. Health promotion and chronic disease prevention in Canada : research, policy and practice, 39(4), 142–156. https://doi.org/10.24095/hpcdp.39.4.06

Robert Steiner

Bell Globemedia

Steiner is the former Vice President of Bell Globemedia, which at the time was the parent company of The Globe and Mail and CTV.³⁹¹

Boston Consulting Group

Steiner was employed as a business strategy executive at Boston Consulting Group, where he continues to earn money as a keynote speaker.³⁹² BSG is a member organization of the World Economic Forum.³⁹³

Liberal Party of Canada

Steiner also served as health and public health policy advisor and principal speechwriter for Paul Martin, during his Liberal Party leadership campaign and transition to being Prime Minister of Canada in 2003. He subsequently advised the Prime Minister's Office and Cabinet on the creation of the Public Health Agency of Canada in 2004. In 2000, Mr. Steiner had managed the Liberal Party of Canada's new media campaign in the period leading to and during the federal general election, working for Prime Minister Jean Chrétien.³⁹⁴

Maytree Policy School

Steiner is on the faculty for Maytree Policy School, teaching journalism and advocacy to not-for profits. The program "introduces tools and opportunities to hone skills in influencing public policy".³⁹⁵

Ontario COVID-19 Science Advisory Table

Steiner is a member of the Secretariat of the Ontario COVID-19 Science Advisory Table, and in this role, receives compensation from the Dalla Lana School of Public Health at the University of

³⁹¹ Engler, Y. (2017, May 3). *The Globe and Mail in service of a controversial mining magnate*. Rabble. https://rabble.ca/general/globe-and-mail-service-controversial-mining-magnate/

³⁹² Steiner, R. (2021, September 11). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest Science-Table Robert-Steiner 20211109.pdf

³⁹³ Boston Consulting Group (BCG). (2019). World Economic Forum. https://archive.ph/Bfrqm

³⁹⁴ About Us. Ontario COVID-19 Science Advisory Table. Retrieved December 18, 2021, from https://covid19-sciencetable.ca/about/#steiner-robert

³⁹⁵ About. MayTree. Retrieved December 18, 2021, from https://maytree.com/maytree-policy-school/#

Toronto, and Public Health Ontario.³⁸⁷ He is also a member of the Behavioural Science Working Group, who were chosen "based on their specific expertise in behaviour change, spanning behavioural medicine, health, clinical and social psychology, behavioural economics, and implementation science. Public Health leaders joining the group were invited based on their expertise in promoting health-protective behaviours and vaccination."

Steiner has no medical or science background whatsoever.

Pierre Elliott Trudeau Foundation

Steiner has been employed as a Mentor for the Pierre Elliott Trudeau Foundation from 2019-2021. 396, 397

Rhodes Trust

Steiner is employed as a journalism instructor for Rhodes Scholars at the University of Oxford. 398

University of Toronto

Steiner is the Director of the Dalla Lana Fellowship in Global Journalism within the Dalla Lana School of Public Health at the University of Toronto.³⁹⁹ From 2006 to 2010, he served as Assistant Vice President of the University of Toronto in charge of Strategic Communications.⁴⁰⁰

He also played an important role in the Munk School of Global Affairs & Public Policy, overlapping with colleague Michael Ignatieff who was a Member of Parliament from 2006 until 2011, and even became Liberal Leader, and Leader of the Official Opposition. 401, 402 Ignatieff later went to work for George Soros' Open Society Foundations. 403 He is also a member of the Queen's Privy Council for Canada, serves as Centennial Chair of the Project on Global Ethics at the Carnegie Council on

³⁹⁶ Fondation Pierre Elliott Trudeau Foundation. (2021). Robert Steiner. Trudeau Foundation. https://www.trudeaufoundation.ca/member/robert-steiner

³⁹⁷ Steiner, R. (2021, February 25). *Declaration of Interest.* Ontario COVID-19 Science Advisory Table.

 $[\]underline{\text{https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Science-Table_Robert-Steiner.pdf}$

³⁹⁸ Steiner, R. (2021, November 9). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table.

https://covid19-sciencetable.ca/wp-content/uploads/2021/02/Declaration-of-Interest_Science-Table_Robert-Steiner_20211109.pdf 399 Dalla Lana School of Public Health. (2021). Steiner, Robert. University of Toronto.

https://www.dlsph.utoronto.ca/journalism/profile/steiner-robert

⁴⁰⁰ Investigative Journalism Bureau. *People*. University of Toronto. Retrieved December 17, 2021, from https://ijb.utoronto.ca/people/
⁴⁰¹ Steiner, R. (2012, October 16). *Robert Steiner: In Toronto, we're dumping the j-school model to produce a new kind of reporter.*Nieman Lab.

https://www.niemanlab.org/2012/10/robert-steiner-in-toronto-were-dumping-the-j-school-model-to-produce-a-new-kind-of-reporter/
402 Ignatieff, Michael. Munk School of Global Affairs and Public Policy. Retrieved December 18, 2021, from
https://munkschool.utoronto.ca/profile/ignatieff-michael-2/

⁴⁰³ Soros, G. (2019, August 16). *George Soros's Message to the Central European University Community.* Open Society Foundations. https://www.opensocietyfoundations.org/newsroom/george-soross-message-to-the-central-european-university-community

Ethics in International Affairs in New York, and President and Rector of the Central European University (CEU), Budapest. 404, 405

Wall Street Journal

Steiner formerly wrote for the Wall Street Journal as global finance correspondent with postings in New York, Hong Kong and Tokyo, where he was a finalist for the Pulitzer Prize, won two Overseas Press Club awards and the Inter-American Press Association Award. 406, 407

Whitehall Principal Advisors

Steiner created a company, Whitehall Principal Advisors, which he supposedly ran while advising Paul Martin on the creation of the Public Health Agency of Canada. The company has since been shut down, and it's unclear what it ever did. His Linkedln profile describes it as working on "complex writing projects for public and private sector chief executives, based on strategic policy and communications advice." According to Corporations Canada, it was dissolved in 2008, and was delinquent for years in filing annual returns. It is possible it was used as a way to pay for services rendered while advising Paul Martin on PHAC.

⁴⁰⁴ Michael Ignatieff. Carnegie Council for Ethics in International Affairs. Retrieved December 18, 2021, from https://www.carnegiecouncil.org/people/michael-ignatieff

⁴⁰⁵ Queen's Privy Council for Canada. (2017, December 11). Government of Canada.

https://www.canada.ca/en/privy-council/services/queens.html#xl 406 Robert Steiner's schedule for 10th Global Investigative Journalism Conference. (2017, November 19). Sched. https://gijc17.sched.com/speaker/robertsteiner1

⁴⁰⁷ Oxford and Cambridge Society of Toronto. (2015, April 14). *It's on today* ROBERT STEINER, Director of the Fellowships in Journalism Program, Munk School of Global Affairs... Facebook. https://archive.ph/GbpPH

⁴⁰⁸ Robert Steiner. LinkedIn. Retrieved December 18, 2021, from https://www.linkedin.com/in/robert-steiner-a9032a2/

⁴⁰⁹ Shaw, R. G. (2008). *Business Corporations Act Certificate of Dissolution Canada/Certificat de dissolution*. https://canucklaw.ca/wp-content/uploads/2021/04/Whitehall-Principal-Advisors-Inc-05-Dissolution.pdf

⁴¹⁰ WHITEHALL PRINCIPAL ADVISORS INC. Canada Corporation Directory. Retrieved December 18, 2021, from https://www.canadacompanyregistry.com/companies/whitehall-principal-advisors-inc/

⁴¹¹ Ronnie. (2021, April 23). *Meet Robert Steiner, (Self-Claimed) Brainchild Behind The Public Health Agency Of Canada.* Canuck Law. https://canucklaw.ca/meet-robert-steiner-self-claimed-brainchild-behind-the-public-health-agency-of-canada/

Scott Weese

Dr. Jeffrey Scott Weese is a Canadian veterinary internist based in Guelph, Ontario.

He is an advocate for the One Health concept of unified health between humans, animals and nature in the response to the COVID-19 pandemic.^{412, 413}

American College of Veterinary Internal Medicine

Weese is a Diplomate of the American College of Veterinary Internal Medicine. 414

Brief Media

Weese is the Editor-in-Chief for Clinician's Brief, a veterinary continuing education and drug formulary review. He also reviews content for Plumb's Veterinary Drugs. Both are published by Brief Media. 415, 416

Canadian Academy of Health Sciences

In October 2020, Weese was inducted as a Fellow with the Canadian Academy of Health Sciences (CAHS). 405

Canadian Advisory Group on Antimicrobial Resistance

Weese is a member of the Canadian Advisory Group on Antimicrobial Resistance. Fellow members include Allison McGeer, Andrew Morris and John Conly. 417

⁴¹² Ontario Veterinary College. (2020, October 22). *U of G infectious disease expert named Canadian Academy of Health Sciences Fellow.* University of Guelph. https://archive.ph/PGBej

⁴¹³ Ontario Veterinary College. (2021, November 3). Why A One Health Approach Is Vital In Pandemic Management. University of Guelph. https://archive.ph/luBix

⁴¹⁴ Scott Weese. (2015, May 4). National Collaborating Centre for Infectious Diseases. https://archive.ph/4xo32

⁴¹⁵ Weese, S. (2021, August 23). *Declaration of Interest*. Ontario COVID-19 Science Advisory Table. https://web.archive.org/web/20220108230111/https://covid19-sciencetable.ca/wp-content/uploads/2020/07/Declaration-of-Interest_Science-Table_Scott-Weese_20210823.pdf

⁴¹⁶ J. Scott Weese. Clinician's Brief. Retrieved January 28, 2022, from https://archive.ph/GeO7F

⁴¹⁷ Expert Advisory Group on Antimicrobial Resistance (EAGAR) - Membership. (2021, June 11). Government of Canada. https://archive.ph/T5QcZ

Canadian Lyme Disease Research Network

Weese is a co-applicant on a grant request to the Canadian Lyme Disease Research Network, lead by Kieran Moore, Chief Medical Officer of Health for Public Health Ontario. 418

Canadian Veterinary Medical Association

Weese was paid by the Canadian Veterinary Medical Association to develop veterinarian antibacterial guidelines. 408, 419 The CVMA is funded by Merck, Scotiabank, and IDEXX, and is an advocate of the One Health theory of medicine, and the World Health Organization and United Nations' Sustainable Development Goals. 420

Government of Canada

Weese holds a Canada Research Chair in Zoonotic Diseases. 421

Lakeridge Health

Weese is an educational speaker with Lakeridge Health. 422

Lakeridge Health receives funding through the Ajax Pickering Hospital Foundation, Bowmanville Hospital Foundation, Durham Fights COVID-19 Campaign, Lakeridge Health Foundation and Port Perry Hospital Foundation. Among the donors are Toyota, Nestlé, Durham District School Board, NorthWest Healthcare Properties, Amazon, Elementary Teachers' Federation of Ontario, McDonald's, Shoppers Drug Mart, Walmart, Shell, Scotiabank, National Bank of Canada, Fidelity. TD Bank Group, Sony, RBC (Royal Bank of Canada), Patreon, CIBC, Boehringer Ingelheim, Bell Canada, BMO Financial Group, Allergan, IBM, United Way, and Toyota. 423, 424, 425, 426, 427

⁴¹⁸ Scott Weese Bio. Canadian Lyme Disease Research Network. Retrieved January 28, 2022, from https://archive.ph/sdTfD

⁴¹⁹ CVMA Guidelines for Veterinary Antimicrobial Use. Canadian Veterinary Medical Association. Retrieved January 28, 2022, from https://archive.ph/IGKHs

⁴²⁰ Joint AVMA-CVMA-FVE Statement on The Role of Veterinarians in Advancing One Health — A Global Public Good. (2021, October 27). Canadian Veterinary Medical Association. https://archive.ph/RawAD

⁴²¹ Ontario Veterinary College. (2014, October 17). *Canada Research Chair renewed for OVC pathobiologist*. University of Guelph. https://archive.ph/LMUMN

⁴²² Speaker Bios. (2021, June 17). Lakeridge Health. https://archive.ph/mBRCO

⁴²³ Lakeridge Health Annual Report 2020/21. (2021). Lakeridge Health.

 $[\]frac{\text{https://web.archive.org/web/20220128201621/https://www.lakeridgehealth.on.ca/en/aboutus/resources/Annual-Report/LH---Annual-Report-2021-Final.pdf}$

⁴²⁴ Thank you to the generous donors. Durham Region Fights COVID-19. Retrieved January 28, 2022, from https://archive.ph/vu4US

⁴²⁵ Donor Recognition. Lakeridge Health Foundation. Retrieved January 28, 2022, from https://lhfoundation.ca/Your-Impact/Donor-Recognition

⁴²⁶ Bowmanville Hospital Foundation. (2021). *Annual Report 2020-2021*. HeyZine Flipbooks.

https://web.archive.org/web/20220128225419/https://heyzine.com/flip-book/c23ac6c547.html#page/1

⁴²⁷ 2018 / 2019 Annual Report. Bowmanville Hospital Foundation. Retrieved January 28, 2022, from https://web.archive.org/web/20220128230348/https://thebowmanvillehospitalfoundation.com/wp-content/uploads/2021/06/AnnualReport_2018-19.pdf

Mars Veterinary Health

Weese received fees from Mars Veterinary Health (via Banfield Pet Hospital) for consulting work on antimicrobial stewardship and surveillance. 408, 428

National Collaborating Centre for Infectious Diseases

Weese is a Partner of the National Collaborating Centre for Infectious Diseases. 407

Ontario Animal Health Network

The Ontario Animal Health Network and Public Health Agency of Canada provided a grant to Weese to fund SARS-CoV-2 surveillance in animals. Additional funders were the Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada (NSERC), American Kennel Club, Equine Guelph, and OPC Pet Trust.⁴⁰⁸

Ontario COVID-19 Science Advisory Table

Weese is a member of the Ontario COVID-19 Science Advisory Table. 429

Ontario Veterinary Medical Association

Weese co-authored the December 2021 update to "A Guide to Mitigating the Risk of Infection in Veterinary Practices During the COVID-19 Pandemic" in partnership with the Ontario Veterinary Medical Association. Prior to that, he prepared OVMA's May 2020 report, "COVID-19: A Guide to Reopening Veterinary Medicine in Ontario".

⁴²⁸ Grigg, C., Bender, J., Nichols, M., Waltenberg, M., Bernstein, L., Holzbauer, S., Kollmann, L., Scheftel, J., Lynfield, R., Frey, E., Weese, S., Stacey, B., Hardefeldt, L., Beaudoin, A., Granick, J., & Leof, E. (2020, May). *Handbook of Antimicrobial Stewardship in Companion Animal Veterinary Settings*. County of Los Angeles Public Health.

 $[\]underline{\text{https://web.archive.org/web/20220119120743/http://www.publichealth.lacounty.qov/vet/docs/AntimicrobialStewardshipCompanionAnimalUM.pdf}$

⁴²⁹ About Us. Ontario COVID-19 Science Advisory Table. Retrieved January 28, 2022, from https://covid19-sciencetable.ca/about/#weese-scott

⁴³⁰ Weese, S., & Ontario Veterinary Medical Association. (2021). A Guide to Mitigating the Risk of Infection in Veterinary Practices During the COVID-19 Pandemic. Worms & Germs Blog.

⁴³¹ Weese, S., & Ontario Veterinary Medical Association. (2020). *COVID-19: A Guide to Reopening Veterinary Medicine in Ontario.* Ontario Veterinary Medical Association.

https://web.archive.org/web/20200924111913/https://www.ovma.org/assets/1/6/Practice_Reopening_Guide.pdf

Stewardship of Antimicrobials by Veterinarians Initiative

Weese is a member of the Expert Advisory Group for the Stewardship of Antimicrobials by Veterinarians Initiative (SAVI).⁴³² He featured in a SAVI video discussing antimicrobial stewardship.
⁴³³

University of Guelph

Weese is a Professor at the Ontario Veterinary College, and Director for the Centre for Public Health and Zoonoses at the University of Guelph.⁴³⁴ He is also Chief of Infection Control at the OVC Teaching Hospital.⁴¹¹

Relationships with Pharmaceutical Companies

Weese has received payment for lectures and speaker bureaus from Merck, Zoetis, Vetoquinol, and Mars Incorporated, including for COVID-19 related talks.⁴⁰⁸

Research

Weese's research interests are bacterial infections in animals and humans, methicillin-resistant staphylococcal infections, Clostridium difficile, antimicrobial resistance, emerging infectious diseases, infection control.⁴²⁷

He has received research grants from the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), American Kennel Club Canine Health Foundation, Ontario Veterinary College Pet Trust, and Equine Guelph (sponsored by Boehringer Ingelheim - manufacturer of veterinary ivermectin - Merck, and ExxonMobil). 435, 436

He is part of a team with Dorothee Bienzle studying SARS-CoV-2 infection in pets. 437

Publications

Dr. Weese has authored or co-authored over 200 papers in peer reviewed journals, edited two books and speaks extensively on infectious disease topics.⁴¹⁵

⁴³² Funders and Partners. SAVI: The Stewardship of Antimicrobials by Veterinarians Initiative. Retrieved January 28, 2022, from https://archive.ph/v1qYs

⁴³³ Rasmussen, J. (2021, December 10). *Dr. Scott Weese, Professor, Ontario Veterinary College, University of Guelph.* SAVI: The Stewardship of Antimicrobials by Veterinarians Initiative.

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⁴³⁷ U of G Researchers Studying Coronavirus Infection in Pets. (2020, April 29). U of G News. https://archive.ph/jMXcW

Media

Over the course of the COVID-19 pandemic Weese has been featured in several mainstream media articles discussing aspects of the crisis.

- On April 7, 2020, Weese discussed tigers and other cats that had tested positive for SARS-CoV-2 in Toronto, Hong Kong and Belgium.⁴³⁸
- On April 8, 2020, Weese explained that the intention of the veterinary community was to limit the number of procedures being done within a clinic in favour of moving to telehealth services, and that cloth masks were in use by vets and technicians.⁴³⁹
- On April 13, 2020, Weese argued that social distancing rules should apply to dogs and cats as well as humans.⁴⁴⁰
- Also on April 13, 2020, he advised staying away from livestock when sick despite low risk to animals and food safety from COVID-19.⁴⁴¹
- On May 20, 2020, Weese cautioned against reopening from lockdown too fast. "We can't
 just go back to normal. There's going to be a new normal for quite a while."
- On June 19, 2020, he spoke to the Washington Post about the need to trace contacts between humans and animals.⁴⁴³

Pets and Ticks

https://archive.ph/70W0X

In 2016, Weese launched the Pet Tick Tracker to help monitor changes in tick populations. He has teamed up with Drs. Katie Clow and Michelle Evason to create Pets and Ticks – a "comprehensive website that brings the Pet Tick Tracker together with up-to-date, evidence-based information on ticks in Canada."

⁴³⁸ Casey, L. (2020, April 7). Toronto Zoo taking precautions with big cats after tiger in N.Y. gets COVID-19. National Post. https://archive.ph/EhVqq

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Worms & Germs Blog

Weese is the author of Worms & Germs, a blog about safe pet ownership. There, he has written about the SARS-CoV-2 Omicron variant in animals, COVID-19 in hamsters, cattle and deer, and infection risk mitigation in veterinary practices during the COVID-19 pandemic.^{445, 446, 447, 448}

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⁴⁴⁷ Weese, S. (2021, December 31). Update: COVID-19 in Animals Review Part 7: Cattle. Worms & Germs Blog. https://archive.ph/VhAdz

⁴⁴⁸ Weese, S. (2022, January 23). The Great Escape: Hamster Style. Worms & Germs Blog. https://archive.ph/88UqW