RSC SRC

RSC Members with Specialized Knowledge in Fields Related to COVID-19
Preliminary List

March 16, 2020

Updated April 3, 2020

The following RSC Members are willing to be contacted about the issues at hand. Members are listed alphabetically within broad fields of research.

Infectious Diseases, Epidemiology, Modelling

1. Pat Armstrong, York University. Dr. Armstrong's research focuses on long-term residential care, drawing on a 10 year international, interdisciplinary study of six countries.

2. Lorne A Babiuk, University of Alberta & University of Saskatchewan. Dr Babiuk's research focuses on vaccine development, immunology and animal models for a wide range of infectious agents including coronaviruses, herpes viruses and adjuvants to enhance immunity.

3. Marcel Behr, McGill University. Dr. Behr's research focuses on the use of genomic methodologies to study the epidemiology and pathogenesis of infectious diseases, most notably tuberculosis and other mycobacterial diseases.

4. Miodrag Belosevic, University of Alberta. Dr. Belosevic's research focuses on the elucidation of the immune mechanisms of host-pathogen interactions at both organismal and molecular levels.

5. Fiona Brinkman, Simon Fraser University. Dr. Brinkman's research focuses on the development and application of computer tools to aid infectious disease outbreak investigations, and more proactive, integrative approaches for disease control.

6. Robert Brunham, University of British Columbia. Dr. Brunham's research focuses on the treatment and prevention of infectious diseases such as *Chlamydia*, SARS, AIDS, and TB.

7. Troy Day, Queen's University. Dr. Day's research focuses on the evolutionary biology of infectious disease and the evolutionary consequences of antimicrobial drug treatment.

8. Michel Desjardins, Université de Montreal. Dr. Desjardins' research focuses on the molecular mechanisms by which infectious agents modulates the immune system.

9. Prabhat Jha, University of Toronto. Dr. Jha's research focuses on the assessment of causes of death, including the Million Death Study of a random sample of all deaths in India since 2001.

10. Esyllt Jones, University of Manitoba. Dr. Jones' research focuses on the history of infectious disease in the modern world, particularly the history of pandemic influenza in Canada (1918-1920); and the history of Canadian medicare.

11. Yong Kang, Western University. Dr. Kang's research focuses the development of efficacious vaccines against various human viral diseases including AIDS, viral hepatitis C, Zika virus, Ebola hemorrhagic fever, MERS-CoV, and now COVID-19. His laboratory has established an effective viral vector platform technology to develop these vaccines.

12. Anita Kothari, Western University. Dr. Kothari's research focuses on the public health risk communication response to COVID-19 in the context of social media.

13. Marc-André Langlois, University of Ottawa. Dr. Langlois' research focuses on developing single-domain antibody-based diagnostic tests and therapeutics for SARS-CoV-2, along with a plant-derived nasal spray vaccine against the virus. He is also developing high throughput serological tests to monitor population exposure to the pathogen.

14. Kim Lavoie, UQAM. Dr. Lavoie's research focuses on the impact of non-pharmacological interventions to prevent the effects of chronic diseases.

15. Tom Marrie, Dalhousie University. Dr. Marrie's research focuses on community-acquired pneumonia, including new pathogens, epidemiology, clinical pathways and clinical trials.

16. Madhukar Pai, McGill University. Dr. Pai's research focuses on tuberculosis, and he is currently working with various partners on a damage control strategy to mitigate the devastating effects of the COVID pandemic on tuberculosis services worldwide.

17. Nikita Pai, McGill University. Dr. Pai's research focuses on the implementation of digital solutions that effectively implement "Point of Care diagnostics" in field settings for viral and bacterial infections

18. Pere Santamaria, University of Calgary. Dr. Santamaria's research focuses on autoimmune diseases. Specifically, he uses disease-specific nanomedicines to revert disease in multiple models and studies the cellular and molecular mechanisms that induce and sustain disease reversal. He engineers specific biomarkers to track disease-causing immune cells in biological samples.

19. Terrance Snutch, University of British Columbia. Dr. Snutch's lab has developed, employed and distributed methodologies for COVID-19 whole genome sequencing aimed at source identification, outbreak tracking and virus evolution.

20. Sharon Straus, University of Toronto. Dr. Straus' research focuses on knowledge translation science, creating bridges between current best evidence about health problems and the quality of health care that people actually receive.

21. Natalie Strynadka, University of British Columbia. Dr. Strynadka's research focuses on structure-guided antimicrobial discovery targeting essential protein complexes underlying infection. A biophysical toolbox of xray-crystallography, NMR and cryoEM methods generate atomic resolution structures, providing a blueprint for subsequent drug design.

22. Robyn Tamblyn, McGill University. Dr. Tamblyn's research focuses on the establishment and validation of new methods of assessing clinical competence using standardized patients, and interventions to improve the safety and effectiveness of prescription drug management.

23. Brett Thombs, McGill University. Dr. Thombs' research focuses on adjustment to living with chronic illnesses, including autoimmune diseases. He has expertise in factors associated with adjustment, including disability and social isolation, and in interventions to promote healthy adjustment.

Economics, Administration, and Culture

24. Timothy Brook, University of British Columbia. Dr. Brook is a historian of China whose work addresses the history of epidemics in China, and the attempts of the Chinese Communist Party to control the international narrative of the current pandemic.

25. Paul McNicholas, McMaster University. Dr. McNicholas' research focuses on computational statistics research, and techniques to solve problems presented by big data.

Public Health, Public Policy

26. Catherine Beauchemin, Ryerson University. Dr. Beauchemin's research focuses on the field of virophysics, a branch of biophysics in which the theoretical tools and quantitative rigour of physics are brought to bear on problems in virology, enhancing our understanding of influenza virus infections.

27. Peter Dietsch, University of Montreal. Dr. Dietsch's research focuses on the impact of fiscal and monetary policy on economic inequality.

28. Geoff Fong, University of Waterloo. Dr. Fong's research focuses on factors that may be causing many to fail to practice social distancing and other recommended measures that heath authorities have urged people to take to flatten the curve.

29. Fuyuki Kurasawa, York University. Dr. Kurasawa's research focus is how social media-based misinformation shapes public health and lay response to COVID-19, and what public health strategies and public policies can be adopted to combat it and its stigmatizing effects.

30. Noralou Roos, University of Manitoba. Dr. Roos' research focuses on the impact of poverty on health and educational outcomes and the potential to address these issues by connecting individuals to benefits they are eligible for.

31. Carolyn Tuohy, University of Toronto. Dr. Tuohy's research focuses on the politics and policy making of health-care reform in Western industrialized democracies and involves theoretical insights for scholars engaged in the comparative study of welfare states under stress.

32. Sanni Yaya, University of Ottawa. Dr. Yaya's research focuses on assessing the magnitude and drivers of global health inequalities with attention to specific social determinants and how these contribute to the local and global distribution of diseases.

Research Ethics

33. Françoise Baylis, Dalhousie University. Dr. Baylis' expertise is in bioethics. Her research interests include: relational public health ethics with a particular focus on the vulnerability of subpopulations lacking in social and economic power, and research involving humans with particular attention to trial design. She is also qualified to address issues of resource allocation.

34. Iwao Hirose, McGill University. Dr. Hirose's research focus is the area of value theory in contemporary ethics in two broadly defined but related areas: the theory and value of distributive equality and the ethics of public policy.

35. Stuart Murray, Carleton University. Dr. Murray's research focuses on how burgeoning biotechnologies, healthcare systems, and communications networks and practices have ushered in a seismic shift in human subjectivity—and what a commensurable ethical response might look like.

36. Susan Sherwin, Dalhousie University. Dr. Sherwin's research focuses on the intersection of feminist philosophy and the study of health care policy and practice, working to reduce the moral oppression inherent in cultural preconceptions, including familiar metaphors, that are woven into received medical practice, notably where agency and autonomy are at issue.

37. Paul Thagard, University of Waterloo. Dr. Thagard's research in the philosophy of medicine includes discussions of the nature of disease, the structure of medical explanations, and the role of values in medical decision making.

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This list is updated on an ongoing basis. Members offer their insights as experts; they do not express the organizational position of the RSC.

Where additional areas of specific areas are required, write to us at info@rsc-src.ca.