Faculty and staff at the University of Guelph support SARS-CoV-2 vaccine safety

July 6, 2021

We are a science-based faculty and staff at the University of Guelph who support evidence-based decisions and disagree with misinformation being circulated by a member of the faculty at the Ontario Veterinary College.

COVID-19 is an unprecedented pandemic due to a novel coronavirus. Nearly four million people globally have died as a result, and nearly two hundred million have been reported as infected.¹ Many millions more have suffered and continue to suffer from physical and mental illness associated with the pandemic, isolation, poverty, and the long-term effects of the infection.²

Vaccines for SARS-CoV-2 were designed, tested and produced at an unprecedented speed and on an extraordinary scale. The ability to quickly develop safe and effective vaccines was made possible through remarkable global co-operation and by concurrently running clinical trials, not by cutting corners. Many countries rapidly authorized vaccines for emergency use. Various types of vaccines are available, including those based on mRNA coding for the viral spike (S) protein, vector-based DNA vaccines coding for the S protein, and recombinant S protein particles. Two doses of the vaccines (type-dependent) have dramatically reduced illness and infections in many parts of the world.³ The vaccines are highly effective and have very few adverse effects.⁴ The coordinated effort of scientists, pharmaceutical companies, public health and regulatory agencies to produce effective vaccines against COVID-19 for billions of people in less than a year is an achievement previously unimaginable.

Dr. Byram Bridle has stated on multiple platforms and numerous outlets that COVID-19 vaccines are unsafe. These statements are contrary to overwhelming scientific evidence. The S protein generated by or incorporated into vaccines is an effective immunogen but does not alter DNA, does not induce infertility or pass through breast milk, and is not a toxin.^{5,6} Adverse vaccine effects do occur but at a similar or lower frequency than for routine vaccines.⁴ In the face of this terrible pandemic, widespread vaccination is the best way out of the devastation we currently face. Many people have limited understanding of the complexities of immunization against infectious agents, and rely on scientists in epidemiology and immunology to share their knowledge and experience, especially at times such as these when fear is high. Misinformation spread by individuals such as Dr. Bridle targets uncertainty.

The University of Guelph, including us, supports freedom of expression. However, as scientists and academics we also have a responsibility to counter misinformation, particularly when the misinformation causes harm. A high rate of vaccine acceptance is essential for prevention of SARS-CoV-2 disease and deaths, and for a return to normalcy. In particular, given the high transmissibility of recent variants, very high vaccination rates among people eligible for vaccination are critical. We are very concerned that people who are not seeking vaccination because of misinformation will suffer ill effects from SARS-CoV-2 infection, will infect others, and will slow the return to a more normal life. Academic freedom is important but should not be a license to spread misinformation that has been clearly refuted, including by authors of publications that Dr. Bridle cites in support of his statements. Some may even consider the University of Guelph complicit by failing to provide a clear and effective response to this misinformation

campaign, which is impacting the reputation of the institution and its faculty. Considering the harmful effects of COVID-19 on individuals and communities, the continued spread of misinformation undermines Canadian public health measures, including our vaccine program, and threatens global health security more broadly.

Therefore, we wish to state publicly that as scientists, faculty, and/or staff of the University of Guelph we stand firmly against the continued spread of factually incorrect and misleading information that is being disseminated by Dr. Bridle. We have confidence that the SARS-CoV-2 vaccines approved for use in Canada are safe and effective, and we wish to reassure the public that as members of the University of Guelph community we fully support evidence-based public health, which includes vaccination against COVID-19.

References

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- 6. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html; accessed June 24, 2021
- 7. https://www.reuters.com/article/factcheck-vaccine-safe-idUSL2N2NX1J6; accessed June 24, 2021

Supporting signatures from University of Guelph faculty and staff

| Name, Credentials | Title | University of Guelph College |
|--------------------------------------|---|----------------------------------|
| Amy Greer, MSc, PhD | Canada Research Chair in Population Disease Modelling and Associate Professor | Ontario Veterinary College |
| Dorothee Bienzle, DVM, PhD | Professor of Veterinary Pathology | Ontario Veterinary College |
| Scott Weese DVM DVSc DACVIM FCAHS | Director, Centre for Public Health and Zoonoses | Ontario Veterinary College |
| Glen Pyle, PhD | Professor of Biomedical Sciences | Ontario Veterinary College |
| | | |
| Sarah Adamowicz, PhD | Associate Professor & Director of Bioinformatics Graduate Program, Integrative Biology | College of Biological Science |
| Emma Allen-Vercoe, PhD | Professor; Canada Research Chair in Human Gut Microbiome Function and Host Interactions | College of Biological Science |

| Ryan Appleby, DVM, DACVR | Assistant Professor, Clinical Studies | Ontario Veterinary College |
|---|---|---|
| Luis G. Arroyo, Lic. Vet Med. DVSc, PhD, DACVIM | Associate Professor, Clinical Studies | Ontario Veterinary College |
| Daniel Ashlock, PhD | Professor and Chair, Mathematics and Statistics | College of Physical and Engineering Sciences |
| France-Isabelle Auzanneau, PhD | Professor, Chemistry | College of Engineering and Physical Sciences |
| John Baird, BVSc, PhD | Professor Emeritus, Clinical Studies | Ontario Veterinary College |
| Ian K. Barker DVM PhD | Professor Emeritus, Pathobiology | Ontario Veterinary College |
| Cathy Bauman, DVM, MPH, PhD | Assistant Professor, Population Medicine | Ontario Veterinary College |
| Janet Beeler-Marfisi, BA, DVM, DVSc, DACVP | Assistant Professor, Pathobiology | Ontario Veterinary College |
| Olaf Berke, PhD | Associate Professor, Statistical Epidemiology, Population Medicine | Ontario Veterinary College |
| Shauna Blois, DVM, DVSc, DACVIM | Associate Professor, Clinical Studies | Ontario Veterinary College |
| P. Suzanne Carman DVM, Dip SAMed, PhD | Diagnostic Virologist, Retired | Animal Health Laboratory |
| Catherine Carstairs, PhD | Professor, History | College of Arts |
| Christina Caruso, PhD | Associate Professor, Integrative Biology | College of Biological Science |
| Katie M. Clow, DVM, PhD | Assistant Professor, Population Medicine | Ontario Veterinary College |
| Joseph Colasanti, PhD | Associate Professor; Molecular and Cellular Biology | College of Biological Sciences |
| Marc Coppolino, PhD | Associate Professor, Molecular and Cellular Biology | College of Biological Science |
| Georgina Cox, PhD | Assistant Professor, Molecular and Cellular Biology | College of Biological Science |
| Teresa Crease, PhD | Professor, Integrative Biology | College of Biological Science |
| Nicola Cribb, MA VetMB | Assistant Professor, Clinical Studies | Ontario Veterinary College |

| DVSc DACVS | | |
|---------------------------------------|--|--|
| John Dawson, PhD | Professor, Molecular and Cellular Biology | College of Biological Science |
| Giannina Descalzi, PhD | Assistant Professor, Biomedical Sciences | Ontario Veterinary College |
| Todd Duffield, DVM, DVSc | Professor and Chair, Population Medicine | Ontario Veterinary College |
| John Fryxell, PhD | Professore, Integrative Biology | College of Biological Science |
| Dan Gillis, PhD | Associate Professor & Statistician, School of Computer Science | College of Engineering & Physical Sciences |
| Lawrence Goodridge, PhD | Professor and Director, Canadian Research Institute for Food Safety | Ontario Agricultural College |
| T. Ryan Gregory, PhD | Professor and Chair, Integrative Biology | College of Biological Science |
| Steffen Graether, PhD | Professor, Molecular and Cellular Biology | College of Biological Science |
| Carlton Gyles, DVM, PhD, FCAHS | Professor emeritus, Pathobiology | Ontario Veterinary College |
| Jutta Hammermueller PhD | Staff, Pathobiology | Ontario Veterinary College |
| Brad Hanna, BSc, DVM, MSc, PhD | Associate Professor, Biomedical Sciences | Ontario Veterinary College |
| George Harauz, PhD | Professor Emeritus, Molecular and Cellular Biology | College of Biological Science |
| Tony Hayes BVSc PhD | Professor Emeritus, Pathobiology | Ontario Veterinary College |
| Paul Hebert PhD, FRSC | Professor & Canada Research Chair in Molecular Biodiversity | College of Biological Science |
| Stephen Henighan, PhD | Professor, School of Languages and Literature | College of Arts |
| Shoshanah Jacobs, PhD | Associate Professor, Integrative Biology | College of Biological Science |
| Fiona James, DVM, DVSc, Dipl ACVIM | Associate Professor, Clinical Studies | Ontario Veterinary College |
| Claire Jardine, DVM, PhD | Associate Professor, Pathobiology | Ontario Veterinary College |

| Andria Jones-Bitton, DVM, PhD | Associate Professor, Epidemiology Director of Well-Being Programming, Ontario Veterinary College | Ontario Veterinary College |
|-------------------------------------|--|---|
| David Kelton, DVM, PhD | Professor of Epidemiology and Dairy Farmers of Ontario Research Chair in Dairy Cattle Health | Ontario Veterinary College |
| Cezar Khursigara, PhD | Associate Professor, Molecular and Cellular Biology | College of Biological Science |
| Judith Koenig, DVM DVSc, DAVCS | Associate Professor, Clinical Studies | Ontario Veterinary College |
| Jasmin Lalonde, PhD | Assistant Professor, Molecular and Cellular Biology | College of Biological Science |
| Mark Lipton, PhD | School of English and Theatre Studies | College of Arts |
| Ray Lu, PhD | Associate Professor, Molecular and Cellular Biology | College of Biological Science |
| Karol Mathews DVM, DVSc, DACVECC | Professor Emerita, Clinical Studies | Ontario Veterinary College |
| Judi McCuaig, PhD | Associate Professor, School of Computer Science | College of Engineering and Physical Sciences |
| Rob McLaughlin, PhD | Associate Professor and Partnership for Ecosystem Research and Management Scientist, Integrative Biology | College of Biological Science |
| Jennifer Murray, PhD | Associate Professor, Psychology | College of Arts |
| Lucy Mutharia, PhD | Adjunct Associate Professor, Molecular and Cellular Biology | College of Biological Sciences |
| Eva Nagy DVM, PhD, DSc | Professor Emerita, Pathobiology | Ontario Veterinary College |
| Annette Nassuth, PhD | Associate Professor, Molecular and Cellular Biology | College of Biological Sciences |
| Lee Niel, PhD | Associate Professor, Population Medicine | Ontario Veterinary College |
| Ryan Norris, PhD | Associate Professor, Integrative Biology | College of Biological Sciences |
| Anthony Ogg, DVM, DVSc, DACVIM | Professor, Clinical Studies | Ontario Veterinary College |
| Andrew Papadopoulos, PhD | Professor, Population Medicine | Ontario Veterinary College |

| Jane Parmley, DVM, PhD | Associate Professor, Population Medicine | Ontario Veterinary College |
|--|---|--|
| Andrew Peregrine, BVMS, PhD, DVM, DEVPC, DACVM | Associate Professor, Pathobiology | Ontario Veterinary College |
| Melissa Perreault, PhD | Associate Professor, Biomedical Sciences | Ontario Veterinary College |
| Zvonimir Poljak, DVM, PhD | Associate Professor, Population Medicine | Ontario Veterinary College |
| John Prescott VetMB PhD FCAHS | Professor Emeritus, Pathobiology | Ontario Veterinary College |
| Katherine Preuss, PhD | Professor, Research Leadership Chair, and Chair of Chemistry | College of Engineering and Physical Science |
| David Renaud, DVM, PhD | Assistant Professor, Population Medicine | Ontario Veterinary College |
| Beren Robinson, PhD | Professor, Integrative Biology | College of Biological Science |
| Michael A. Rogers PhD | Associate Professor and Canada Research Chair in Food Nanotechnology | Ontario Agricultural College |
| Tarek Saleh, PhD | Professor and Chair, Biomedical Sciences | Ontario Veterinary College |
| Shaun Sanders, PhD | Assistant Professor, Molecular and Cellular Biology | College of Biological Science |
| Jan M. Sargeant, PhD | Professor of Epidemiology, Population Medicine | Ontario Veterinary College |
| Stephen Seah, PhD | Associate Professor; Molecular and Cellular Biology | College of Biological Science |
| Rebecca Shapiro, PhD | Assistant Professor, Molecular and Cellular Biology | College of Biological Sciences |
| Patricia Shewen DVM PhD | Professor Emerita, Pathobiology | Ontario Veterinary College |
| Paul Sibley, PhD | Interim Director, School of Environmental Sciences | Ontario Agricultural College |
| Jeremy Simpson, PhD | Associate Professor, Human Health and Nutrition | College of Biological Sciences |
| Ameet Singh, DVM, DVSc, DACVS | Professor, Clinical Studies | Ontario Veterinary College |
| Kelsey Spence, PhD | Assistant Professor, Population Medicine | Ontario Veterinary College |

| Patricia V Turner MS, DVM, DVSc, DACLAM, DABT, DECAWBM | Professor Emerita, Pathobiology | Ontario Veterinary College |
|--|---|-----------------------------------|
| Siavash Vahidi, PhD | Assistant Professor, Molecular and Cellular Biology | College of Biological Science |
| Alexander Valverde, DVM, DVSc | Professor, Clinical Studies | Ontario Veterinary College |
| George van der Merwe, PhD | Associate Professor; Molecular and Cellular Biology | College of Biological Science |
| Matthew Vickaryous, PhD | Associate Professor, Biomedical Sciences | Ontario Veterinary College |
| Laurent Viel, DVM, PhD | Professor Emeritus, Clinical Studies | Ontario Veterinary College |
| Chris Whitfield PhD FRSC | Professor and Canada Research in Microbial Cell Biology, Molecular and Cellular Biology | College of Biological Sciences |
| Charlotte Winder, DVM, DVSc | Assistant Professor, Population Medicine | Ontario Veterinary College |
| Alex zur Linden, DVM, DACVR | Associate Professor, Clinical Studies | Ontario Veterinary College |