Speaker Biographies

Guy Narbonne is Professor and Queen's Research Chair in the Department of Geological Sciences and Geological Engineering at Queen's University. His course in "History of Life" is taken by students from more than 20 departments across Queen's University every year, and his 100 refereed scientific journal papers include a cover story in Science Magazine on the fractal organization of early life and two papers recognized by Discover Magazine as among the top 100 scientific discoveries worldwide of the year. This research has attracted considerable media attention, including being featured twice in National Geographic (1998 and 2018) and in documentaries narrated by David Suzuki and Sir David Attenborough. Guy is active in UNESCO as Chief Scientist on the successful nomination of the fossil beds at Mistaken Point as a UNESCO World Heritage Site (2016) and also as Global Change Councilor (2013-2016) and now Chair (2017-2018) of the International Geoscience Program, a joint program of UNESCO and IUGS dedicated to the use of "geoscience for society" with an emphasis on developing nations. Narbonne has received three lifetime-achievement medals from the Geological Association of Canada (H.S. Robinson Medal in 1994, Billings Medal in 2009, E.R.W. Neale Medal in 2017) and was elected Fellow of the Royal Society of Canada (2010) and presented with its Bancroft Award for "publication, instruction, and research in the earth sciences" in 2014.

Peter Putnam is a geologist with 40 years of varied global experience at both technical and executive levels. His endeavors have covered the areas of exploration, development (inclusive of primary, secondary and thermal recovery), operations, reserves assessments, research and training. Over his career he has been, at various times, an employee, an advisor to technical and management teams as well as boards of directors, a board member, and a founder of new companies. Early stage companies started by Peter have raised over $1 billion in equity from investors inclusive of large private equity firms, sovereign wealth funds, pension funds and family offices. With experience on six continents, he is currently the Chair and Chief Executive Officer of Central European Petroleum Ltd., a private petroleum company focused on eastern Germany. Peter holds a Ph.D. from the University of Calgary and is a past-President of the Canadian Society of Petroleum Geologists, a former adjunct professor at the University of Calgary, and a former councilor of the Association of Professional Engineers and Geoscientists of Alberta (APEGA). He has published widely as an author of scientific articles dealing with various facets of petroleum geology and is a regular guest lecturer at Canadian universities.

Kent Novakowski is a Professor of Civil Engineering, and Associate Vice-Principal (Research) at Queen's University, Kingston, Ontario. Dr. Novakowski obtained his BSc in Geology from Brock in 1980, and then an MSc and PhD in Hydrogeology from the University of Waterloo in 1982 and 1992, respectively. He has had a widely varied career as a researcher and academic with employment in the Canadian Nuclear Fuel Waste Program in Ottawa, the National Water Research Institute in Burlington, Ontario, Brock Geology as an Associate Professor (1998-2000), and then the Department of Civil Engineering at Queen's University, as Professor (2000-2009), and Department Head (2009-2018). Dr. Novakowski has specialised as one of only a few hydrogeologists across the globe with extensive experience in the hydrogeology of both crystalline and sedimentary fractured rock. He has supervised more than 45 graduate students,

published more than 250 papers and abstracts, and acted as an Associate Editor for several journals. He was a founding Director of the Water Research Centre at Queen's now known as the Beaty Water Research Centre, an affiliation of more than 45 water researchers from a wide variety of disciplines across Queen's and the Royal Military College. He has also served as a consultant to various groundwater-engineering companies, to the mining community, and to the nuclear waste industry in North America and abroad. He is a Fellow of the Canadian Society of Civil Engineers, and the Engineering Institute of Canada. In 2013, he won the Engineering Excellence Medal given by Professional Engineers Ontario.

Roberta L. (Robbie) Flemming is an Associate Professor in Earth Sciences at Western University. She graduated from Brock in 1985, with a B.Sc. in Geology and Chemistry (combined program). She received her M.Sc. (1990) and Ph.D. (1997) in Geological Sciences from Queen's University, and she held a Killam Post-doctoral Fellowship at University of Alberta (1997-1999). She started at Western in 2000, where she has enjoyed research and teaching in mineralogy for over 18 years. She has supervised 35 B.Sc., 15 M.Sc. and 6 Ph.D. thesis students, and published 60 research papers. Roberta's research program uses minerals as interpretive and predictive keys to past and present processes on Earth and other planetary bodies. Her research includes mineralogy of meteorites to understand solar system evolution, and mineralogy of kimberlites for application to diamond exploration. She directs the Powder X-ray Diffraction and Micro X-ray Diffraction Facility at Western, and she currently leads a Canadian Space Agency-funded Planetary Instrument Concept Study for a "Miniaturized in situ X-ray diffractometer for mineralogical characterization of planetary surfaces". In 2007, Roberta received a "30 from the past 30" award of recognition by Brock University's Alumni Association. She is a regular participant at Brock's "Scientifically Yours" dinner as part of an event to recruit bright high school students into science.

Matt Devereux began collecting fossils and minerals from the age of 4, and took that passion through his education at Brock, finding Ontario's only trilobite specialist at the time, Dr. Stephen Westrop. While in university, Matt was asked to join the Royal Ontario Museum (R.O.M.) excavation team at the world-famous Burgess Shale, funded entirely by National Geographic. Eventually becoming the lead hand at the Shale, he spent ten years excavating tens of thousands of fossils, including at least a dozen new species. Following graduation, he began working as a Research Technician at the R.O.M. and managed the Burgess Shale collection. While there, he was recruited by Dr. Nicholas Butterfield to complete a Master of Science at Western. Matt continues to pursue his passion and collects fossils whenever he can, often along the banks of the Ausable River near Arkona.

Rob McDougall is the Division Performance Manager for CRH Canada with 22 years of experience with heavy construction building materials. Rob holds a Bachelor of Science degree from Brock University in Earth Science and Geography and in 2010 Rob completed a postgraduate certificate with the University of Leeds in Quarry Operations Management. For 20 years he has worked with Dufferin Aggregates (Div. of CRH Canada) in various operations roles responsible for safety, mine planning and resource management, environmental stewardship, production and finances. Currently, Rob is responsible for performance teams across all the lines of business within CRH Canada focusing on commercial and operational improvements.

Diane Bloomfield is an environmental specialist experienced in project management, environmental compliance and regulatory oversight. She is a graduate of the Earth Sciences program at Brock University and received her M.Sc. from the University of Waterloo. She is trained as a contaminant hydrogeologist and has held hydrogeology and environmental management positions in environmental consulting, industry and government. Currently, Diane is Manager, Source Water Protection, for the Halton-Hamilton Source Protection Region. Her work focuses on keeping our drinking water sources clean and plentiful.

Rhonneke Van Riezen is a senior fluvial geomorphologist at AECOM, registered with the APGO. She has thirteen years of experience within the public and private sector conducting fluvial geomorphic work. After completing her Master's degree in 2005 specializing in Fluvial Geomorphology, she worked at the Niagara Peninsula Conservation Authority conducting geomorphic assessments for the Watershed Plans. Since 2011, Ms. Van Riezen has been working in consulting conducting geomorphic assessments and natural channel design projects characterizing current geomorphological conditions and providing recommendations to protect long term stream form and function. She has experience in: detailed geomorphic and erosion assessments, Environmental Assessments, construction and post-construction monitoring, natural channel design and restoration projects, as well as meander belt studies. Ms. Van Riezen has also taught an Environmental Analysis course at Niagara College for the past 3 years, focusing on environmental study design for data collection.

Bob Janzen graduated from Brock University in 2015 with a Bachelor of Science in Environmental Geoscience. During his time at Brock, Bob spent two summers working with the Ontario Geological Survey as a field assistant on a drilling campaign designed to map the surficial sediments in three dimensions throughout the Niagara Peninsula. After graduation, he began his Master's degree at the University of Waterloo working on a diamond exploration project in the Northwest Territories. Currently, Bob is working at the Grand River Conservation Authority as the Groundwater Technologist. He is responsible for the operation and maintenance of the local and provincial groundwater monitoring networks including hydrogeological field measurements, sampling for groundwater quality, and interpretation of groundwater monitoring data. As a recent graduate, Bob has a fresh perspective on jobs that are available, skills employers are seeking, and choices that are available after graduation.

Meaghan Francis began her experience working in geology in the summer of 2011, when she mapped Quaternary sediments with the Ontario Geological Survey (OGS) in the far north. After discovering she don't do well in helicopters, she moved her focus towards a more terrestrial study working on the Ambient Groundwater Geochemistry Program (AGGP) with the OGS in the summers of 2012 and 2013. After graduating in 2013, she moved to Calgary and did a lot of traveling, exploring countries in Asia and Europe. After two years out west, she made her way back to Ontario where she returned to the OGS as a winter assistant doing data analysis and quality control. Her continued work on the AGGP sparked her intrigue in geochemistry and hydrogeology and she is currently working on her Masters in Earth Science at the University of Ottawa on a research project in conjunction with the OGS.