

Dr. Hugo Andrade Barazarte

Dr. Hugo Andrade Barazarte obtained his medical degree at Universidad Centro-occidental Lisandro Alvarado, Barquisimeto – Venezuela in 2006. In 2012, he completed his training as neurosurgeon becoming staff of the University Hospital Antonio Maria Pineda, in Venezuela.

Dr. Andrade Barazarte joined in February 2013 the University of Helsinki, Neurosurgery department under the direction of Prof. Juha Hernesniemi as cerebrovascular/skull base fellow and PhD student.

After completing his fellowship in Helsinki, Dr. Andrade joined the Toronto Western Hospital as a cerebrovascular clinical fellow to expand his knowledge in vascular and skull base pathologies. In June 2016, Dr. Andrade Barazarte obtained his PhD at the University of Helsinki – Finland. Between 2016 - 2018,

Dr. Andrade Barazarte worked as staff neurosurgeon at the Mannheim University Hospital in Germany. He was an Associated Professor at the Juha Hernesniemi International Center, Henan Provincial People's Hospital and co-director of the Moyamoya disease research center and treatment of the Henan Provincial People's Hospital.

Dr. Ivan Radovanovic

Dr. Radovanovic is a cerebrovascular neurosurgeon with a basic and translational research program dedicated to understanding the development of vascular anomalies such as vascular malformations and cerebral aneurysms. In particular, he is interested in the genetic mechanisms and dysfunctional developmental pathways underlying common and rare vascular lesions that are a significant cause of hemorrhagic stroke affecting the pediatric and young adult population.

Dr. Radovanovic obtained his medical degree and neurosurgery residency training at the University of Geneva, Switzerland. He completed a diploma in molecular biology and genetics from the University of Zurich and completed a PhD at the Institute of Neuropathology at the University of Zurich. Dr. Radovanovic then did a clinical fellowship in neuro-oncology/skull base surgery and cerebrovascular surgery at Toronto Western Hospital. Dr. Radovanovic returned to Geneva University Hospitals, Department of Clinical Neurosciences, Division of Neurosurgery as a staff neurosurgeon. Shortly after that he was then recruited to the Division of Neurosurgery with a staff appointment at Toronto Western Hospital. He is currently an Associate Professor in the Department of Surgery at The University of Toronto and a Senior Scientist at the Krembil Brain Institute.

As a Cerebrovascular Surgeron at the Toronto Western Hospital, Dr. Radovanovic treats the full range of surgical cerebrovascular pathologies, including highly complex cases. His practice includes brain vascular malformation, brain aneurysm and cerebral bypass surgery as well as skull base surgery. Dr. Radovanovic has an interest in minimally invasive surgery of vascular and skull base and has developed original microscopic and endoscopic transcranial minimally invasive techniques.

As a scientist Dr. Radovanovic studies the genetic and the biology of brain vascular malformations. His group was the first to demonstrate the human brain arteriovenous malformations are caused by

activating somatic mutations in the KRAS in brain vascular cells. This breakthrough work has led to a paradigm change in the field of brain vascular malformations and open new avenues for targeted therapies.

Dr. Radovanovic is also involved in teaching, mainly as the organizer of the Loughheed neurosurgical course, a biannual weeklong comprehensive hands-on course for Canadian neurosurgery residents.

International Faculty

Dr. João Paulo Almeida

Dr. João Paulo Almeida is a neurosurgeon specialized in skull base surgery, pituitary surgery and neuro-oncology. He has a strong commitment to academic neurosurgery and has authored and co-authored over 80 peer-reviewed papers, 50 neurosurgical meeting presentations, and 25 book chapters, in addition to collaborations in microsurgical courses and academic teaching activities in international centers. His main areas of research are open and endoscopic skull base surgery, neuro-oncology and microsurgical anatomy.

He obtained his medical degree at The School of Medicine of The Federal University of Ceara and did his Neurosurgery residency at State University of Campinas (UNICAMP), in Brazil. After residency, he worked with Dr. Evandro de Oliveira and his team at the Institute of Neurological Sciences, in Sao Paulo, and at the State University of Campinas. In 2017, relocated to North America and underwent additional training at the Toronto Western Hospital / University of Toronto as a Clinical Fellow in Neuro-oncology and Skull Base Surgery and Cerebrovascular Surgery; and additionally worked as an Advanced Endoscopic and Open Skull Base Surgery Fellow at Cleveland Clinic, Cleveland, OH. He joined the Department of Neurosurgery at Mayo Clinic Florida, in 2021, with focus on Neuro-oncology and Skull Base Surgery.

Dr. Amir Dehdashti

Dr. Amir Dehdashti is a renowned neurosurgeon, and one of the few dual-trained cerebrovascular and skull base surgeons in America. He serves as the director of cerebrovascular neurosurgery research at North Shore University Hospital, and Professor of Neurosurgery at the Zucker School of Medicine at Hofstra/Northwell.

Dr. Dehdashti's areas of expertise include cerebrovascular surgery for brain aneurysms and arteriovenous malformations, brainstem cavernous malformations, carotid artery disease, and bypass surgery for moyamoya disease and brain aneurysms. He specializes in skull base surgery for acoustic neuromas and meningiomas, minimally invasive endoscopic skull base surgery for pituitary and other skull base tumors, cranial nerve surgery for trigeminal neuralgia and hemifacial spasm, and craniovertebral junction surgery including Chiari. He has developed minimally invasive approaches to many complex cerebrovascular and cranial base diseases, and is one of a few neurosurgeons in the country with internationally recognized expertise in bypass surgery.

With 14 years in practice as a board-certified neurosurgeon, Dr. Dehdashti understands the intricacies and delicate nature of brain surgery, and approaches each unique case with meticulous attention to detail. He is dedicated to providing the latest, most effective surgical options that offer the best possible

outcomes, which is why patients both nationally and internationally are often referred to him.

A global leader in neurosurgical research, Dr. Dehdashti has been published in more than 150 medical papers, including the textbook *Surgery of Craniovertebral Junction*, and has given more than 400 lectures at national and international meetings. His current research focuses on cerebrovascular outcomes and new technologies, as well as brain arteriovenous malformations, aneurysms and skull base surgery.

Dr. Dehdashti completed his neurosurgery residency in Geneva, Switzerland, and then trained at Toronto Western Hospital, one of the largest neurosurgery centers in the world, and completed two dedicated and separate fellowships in skull base and minimally invasive endoscopic skull base surgery, and cerebrovascular neurosurgery.

As the program director of the globally recognized, CAST-accredited cerebrovascular neurosurgery fellowship at North Shore University Hospital, Dr. Dehdashti is passionate about training the next generation of subspecialty neurosurgeons many of whom trained at top neurosurgical institutions and come to him to brush up their techniques.

Dr. Dehdashti serves on the board of the North American Skull Base Society and on the Editorial Board for several journals, including *Operative Neurosurgery* and *Acta Neurochirurgica*. He is also a member of other prestigious medical societies, such as the Cerebrovascular Section of the American Association of Neurological Surgeons/Congress of Neurological Surgeons and the American Association of Neurosurgical Surgeons.

Dr. Ulrich Sure

Prof. Dr. Ulrich Sure is a well-known Neurologist from Germany who is a specialist in neurosurgery and intensive care medicine. His areas of main interest include Neurovascular neurosurgery, Brain tumor surgery, Epilepsy surgery, Spine and spinal cord surgery, and minimally invasive surgical methods. In 2008, Prof. Dr. Ulrich Sure became the Director of the Neurosurgical Department of the Essen University Hospital.

Dr. Rokuya Tanikawa

Coming soon...

Local Faculty

Dr. Ronit Agid

Dr. Agid is a Neuroradiologist at the Toronto Western Hospital, University Health Network. She is an associate Professor of Radiology at the University of Toronto. In 1995 she graduated from the Hadassah Hebrew University medical school in Jerusalem, Israel. She completed her residency in radiology at the Hadassah medical center in Jerusalem. Her fellowship training in diagnostic and interventional Neuroradiology was at the University of Toronto, Ontario, Canada in 2001-2004 under the tutelage of Dr. Karel terBrugge.

Dr. Agid has published over 100 articles in peer-reviewed journals and presented her work in over 70 scientific meetings. In addition, she has been an invited speaker and a visiting professor in over 60 national and international conferences. She has organized 3 scientific meetings in Tel Aviv focusing on Neuro-Interventional treatments and served as a faculty and session moderator in 30 other scientific meetings. She serves as a reviewer for 24 peer reviewed medical journals and is on the editorial board of 3. Dr. Agid's research focus is on the natural history, imaging and management of cerebrovascular diseases.

Currently Dr. Agid serves as the interim section head of Neurointervention in the Joint Department of Medical Imaging at UHN. She is the site supervisor of the U of T diagnostic fellowship program. Dr. Agid is a member of the executive and Endowment Committees of the World Federation of Interventional and Therapeutic Neuroradiology (WFITN) and Chair of the Educational and women's sections of this organization. She created and is managing the Grant for "Interventional Neuroradiology Low and Lower-Middle Income Country Observership Program" for the WFITN. Dr. Agid serves as a member of the AFC (area of focused competence) Working Group in Neuro-intervention of the Royal College of Physicians and Surgeons of Canada.

Dr. Leodante da Costa

Dr. da Costa received his MD from the Federal University of Minas Gerais, Brazil, in 1995 and finished his neurosurgical training in 2000, also in Brazil. He completed four years of fellowship training at the University of Toronto from 2004 to 2008, including 3 years of Cerebrovascular Surgery and Interventional Neuroradiology. He joined the Division of Neurosurgery as an Assistant Professor in September 2008. He currently holds the rank of Associate Professor and works at Sunnybrook Health Sciences Centre, where he holds positions in the Division of Neurosurgery, the Division of Spine Surgery and is cross-appointed to the Department of Medical Imaging. He is the Medical Director of the Center for Neurovascular Intervention at Sunnybrook and current Head of the Division of Spine Surgery at Sunnybrook Health Sciences.

Dr. Timo Krings

Dr. Krings studied medicine in Aachen, Germany and at Harvard Medical School in Boston. After residency training in Neuroradiology in Aachen with Prof. Armin Thron, he completed a neurointerventional fellowship with Professor Pierre Lasjaunias in Paris, France and subsequently joined the Neuroradiology division of the University of Toronto as a diagnostic and interventional Neuroradiologist in 2008. He is currently cross appointed to Radiology and Neurosurgery at UHN and as an interventional Neuroradiologist at the Hospital for Sick Children. He is a Full Professor of Radiology and Surgery, and Diagnostic and Interventional Neuroradiologist at the University Health Network, Mount Sinai and Women's College Hospitals. He holds the David Braley and Nancy Gordon Chair in Interventional Neuroradiology at the University of Toronto and is the Director of the Interventional Neuroradiology Program at TWH.

Focusing his research efforts on Imaging and Treatment of Neurovascular Diseases, Dr. Krings has published more than 450 peer reviewed articles, and approximately 30 book chapters and four books on spinal, pediatric and interventional neuroradiology, and neurovascular anatomy.

His current research focusses on the prediction of brain bleeding from brain vascular malformations using a multidisciplinary approach, development of novel methods to treat these life changing events and estimating the relative effectiveness of treatments to determine the impact on Health Care. To this end he is working with a team of Neuro-imagers, Neurointerventionalists, Computational Scientists, Genetist Biologists and Epidemiologists within the Division of Neuroradiology.

Dr. Krings's leadership in the field of Neuroradiology is bolstered by his distinguished grants and awards, including the Scientific Award of the European Society of Neuroradiology, the Lucien Appel Prize, and the Founders Award in Interventional Neuroradiology of the ESNR. For the development of the Neuroradiology Program in Toronto he won the Anderson Award of the Wightman-Berris Academy and was granted the Edward Lansdown Award for outstanding teaching in the Residency Program of the University of Toronto.

Dr. Pascal Mosimann

Dr Mosimann was born and raised in Switzerland and is the Division Head of Interventional and Diagnostic Neuroradiology and the Program Director of the Interventional Neuroradiology Fellowship Program at TWH and the University of Toronto.. He is trilingual in English, French and German and Professor of Medical Imaging / Neuroradiology with a cross-appointment in Neurosurgery at the University of Toronto.

Dr. Mosimann joined JDMI's Neuroradiology Division in July 2022. He was recruited from Essen, Germany, where he served as the Chief Deputy/Vice Head at the Institute for Diagnostic and Interventional Neuroradiology, Alfried Krupp Krankenhaus. Alongside Professor Chapot, he invented new treatment techniques and is one of the few experts worldwide to master the art of transvenous embolization to cure brain AVMs. Prior to that, he held privileged leadership positions in the University Hospitals of Bern and Lausanne, in Switzerland.

He has published nearly 100 peer-reviewed manuscripts and raised over \$3 million in grant money. His current research interests focus on clinical and translational device development to better treat ischemic stroke, brain aneurysms & arteriovenous malformations, as well as venous outflow related pathologies causing pulsatile tinnitus or raised intracranial hypertension.

His team is developing a new generation of guide wires for enhanced neurovascular navigation, biocompatible photosensitive hydrogels to occlude aneurysms, endovascular sympathetic denervation probes to treat cerebral vasospasm, as well as the next generation of flow-driven, magnetically steerable, robotically-assisted microcatheters that may enable remote interventions in the near future.

Dr. Mosimann is widely acclaimed and internationally recognized for his mentoring skills and expertise in novel, ground-breaking interventional techniques for complex neurovascular diseases, in particular brain pial and dural AVMs and aneurysms.

Dr. Vitor Pereira

Dr. Vitor Mendes Pereira is a neurosurgeon specialized in endovascular procedures to treat neurovascular diseases of the brain and spine, including Stroke, Brain Aneurysms, Arteriovenous Malformations, Vascular Causes of Pulsatile Tinnitus, Intracranial Hypertension, Dural Fistulas, Carotid and Intracranial Stenosis (Atherosclerotic Diseases) and percutaneous pain procedures in adult and pediatric patients.

He completed a neurosurgery residency at the State University of Sao Paulo, Brazil, and his clinical fellowship and master's degree in France (CHU Bicetre and Rothschild Foundation). From 2008-2014, Dr. Pereira worked as the Head of the Interventional Neuroradiology division and Privat-Docent at the University Hospital of Geneva, Switzerland. In 2014, he joined the University of Toronto as an Associate Professor and worked at the UHN/Toronto Western Hospital and Hospital for Sick Children. In April/2021, Dr. Pereira joins the Division of Neurosurgery, Department of Surgery at St Michael's Hospital as the Director of Endovascular Research and Innovation. He is currently a Professor at UofT, and he holds the Schroeder Chair in Advanced Neurovascular Interventions.

Prof Pereira is a pioneer in stent retrievers use in acute stroke and perhaps holds the most extensive experience with flow diverters interventions worldwide. He is interested in diagnosing and treating intracranial venous diseases, including idiopathic intracranial hypertension and pulsatile tinnitus. He is involved in many research and innovative translational projects, and, most recently, he performed the world's first robotic neurovascular intervention. He plans to advance the possibility of remote endovascular treatments in the future.

He is the lead scientist of the RADIS lab, which focuses on studying innovative technologies and their potential applications to vascular neurosurgery, including computational fluid dynamics, dynamic diagnostic imaging, genetics, and molecular biology. Artificial Intelligence and Robotics are two of the most profound technological advances of the last decade. This lab focuses on leveraging these technologies to improve the outcomes of patients with neurovascular diseases.

Dr. Pereira is engaged in education in the field of endovascular neurosurgery. He organizes advanced training in new techniques and participates in courses and workshops worldwide, teaching cerebral

and spinal vascular anatomy, imaging, and advanced endovascular treatments. He has contributed over 270 publications to this evolving and dynamic field.

Dr. Joanna Schaafsma

Dr. Joanna Schaafsma is a vascular neurologist and clinician investigator at the University of Toronto since 2018. After a Stroke internship in Paris, she completed her Neurology training and her PhD on brain aneurysms in the Netherlands, followed by a Stroke fellowship in Toronto. She focuses her work on decision making and medical imaging in cerebrovascular diseases.

Dr. Michael Schwartz

Michael Louis Schwartz was born on August 29, 1943 in Toronto. He obtained his MD from the University of Toronto in 1967 and interned at the Hôtel-Dieu de Montréal. In 1968 he returned to the University of Toronto to begin his training under the direction of Professor T. P. Morley. In Dr. Morley's laboratory, in collaboration with Dr. Charles Tator, he studied the uptake of tracers in tumours and the distribution of labeled hydrocortisone in a mouse ependymoblastoma. In 1970 he earned a Master of Science degree for this work.

In 1974 he became a fellow of the Royal College of Physicians and Surgeons of Canada. He practiced at Mount Sinai Hospital and the Toronto General Hospital for four years and then moved to Sunnybrook Health Sciences Centre where he has remained. He has been the head of the division of neurosurgery and holds the rank of professor in the Department of Surgery at the University of Toronto.

His areas of interest have included the treatment and evaluation of outcome after brain injury, for which he has designed and participated in clinical trials. He has been a member of the American Brain Injury Consortium and a founding member and past president of the Trauma Association of Canada.

For more than 30 years he has pursued an interest in radiosurgery. He has been interested in quality assurance. His major interest in radiosurgery has been its application to the treatment of brain vascular malformations and the study of factors that influence outcome.

Since 2012 he has collaborated with Professor Kullervo Hynynen and Nir Lipsman on the application of MR guided focused ultrasound in the treatment of tremor.

Dr. Schwartz has been the chair of the of the Royal College examination committee in neurosurgery and has been the chair of the specialty committee in neurosurgery. His memberships have included the Canadian Neurosurgical Society, the American Association of Neurological Surgeons, the Society of Neurological Surgeons and the Société de Neurochirurgie de Langue Française.

In 2013, he retired from general neurosurgery, but continues to be active in radiosurgery and therapeutic ultrasound.

Dr. Julian Spears

Dr. Spears is Head of the Division of Neurosurgery, St. Michael's Hospital, one of the busiest neurosurgical units in Canada. During his training, he undertook graduate studies in Clinical Epidemiology and successfully obtained his Masters of Science degree from the Harvard School of Public Health in 2006. Dr. Spears became a Fellow of the American College of Surgeons in 2008. Dr. Spears is the Co-Director of the Neurovascular Program at St. Michael's Hospital and an Adjunct Scientist in the Keenan Research Centre of the Li Ka Shing Knowledge Institute. Dr. Spears currently holds the St. Michael's Hospital Chair in Brain Tumour and Cerebrovascular Surgery. Dr. Spears is an investigator/co-investigator of multiple clinical studies evaluating brain aneurysm and brain tumour treatments and remains very active politically at the Provincial level trying to further improve neurosurgical care for Ontarians. Dr. Spears has successfully treated about 1500 brain tumours and over 2000 aneurysms in his career thus far.