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2022

CANADIAN MEDICAL STUDENT INTEREST GROUP IN NEUROSURGERY

PROGRESS REPORT

Organizational Tasks and Future Plans

July 2021 – August 2022



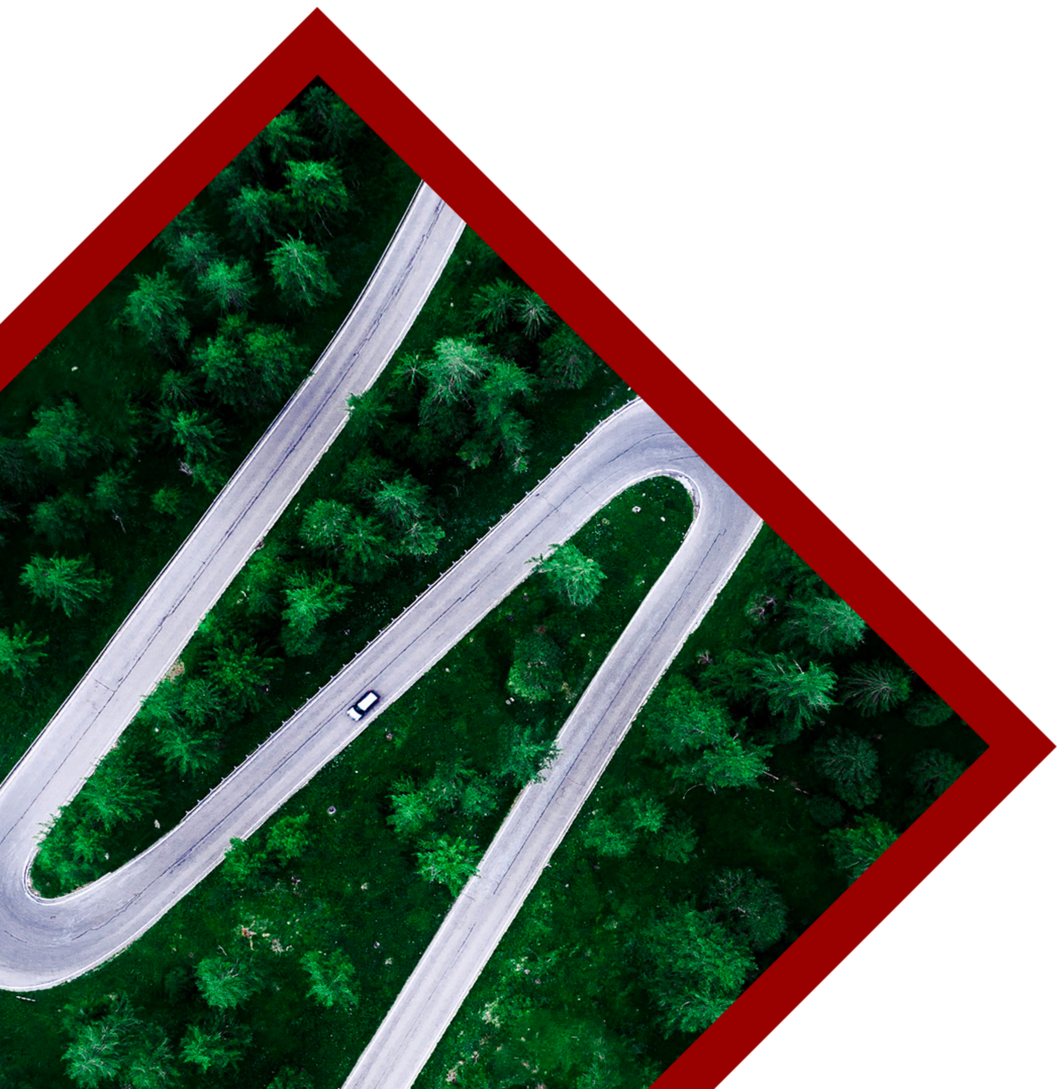


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Our Mission

Connect, educate, and inspire medical students across Canada of all backgrounds.

Our Vision

Provide a national platform to promote neurosurgical education, research, and advocacy.

CAMSIGN TEAM

Co-Founders and Leadership Team



SAMAN ARFAIE

MD, CM Candidate (2024), McGill

Saman is passionate about neurosurgery, basic science research (i.e. neurobiology and brain tumors), and encouraging equitable representation of wide talents in surgical fields. As Co-Founder, he hopes to create a new chapter for connecting Canadian medical students interested in neurosurgery.



PEDRAM LAGHAEI

MD Candidate (2023), UBC

Pedram is deeply intrigued by the intricacies of the brain, investigations within neuroscience and neuro-oncology, and has a genuine interest in pursuing a career in the field of neurosurgery. As Co-Founder, he hopes to fulfill the missions and visions of CaMSIGN through collaboration and communication.



MOHAMMAD MASHAYEKHI

MD Candidate (2023), UBC

Mohammad is fascinated by the inner workings of the human brain and aspires to continue his future trajectory in neurosurgery. As Co-Founder, he is excited to help connect medical students interested in neurosurgery and provide opportunities for networking between medical students, surgical residents and faculty neurosurgeons.

Media & Communications Team



BENYAMIN ZARGAR

MD Candidate (2025), Deakin

Benyamin is passionate about knowledge translation, research in neuro-oncology, and epigenetics of chronic diseases. As Media Team Lead, he contributes to website design, its ease of access, and shares CaMSIGN's content on its YouTube channel.



JOEL SONFACK

MD Candidate (2024), Laval

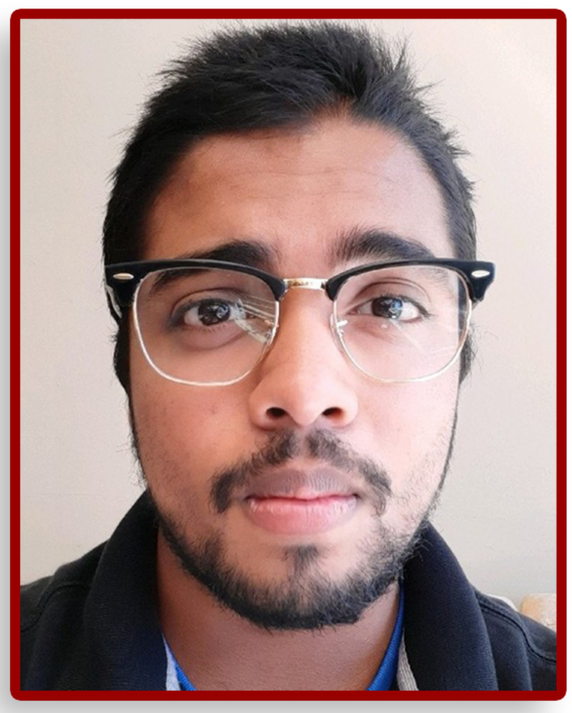
Passionate about neuroscience and surgery, Joel joined CaMSIGN to be surrounded by colleagues that share similar ambitions. As the French Ambassador, Joel strives to unite French-speaking and English-speaking students and ensuring a bilingual diffusion of CaMSIGN's content by providing a French equivalent.



PHILIP KAWALEC

MD Candidate (2023), Manitoba

Philip's passion and engagement in neurosurgery has increased exponentially, leading him to join CaMSIGN to collaborate with colleagues and further his learning. As the Social Media Director, Philip contributes to the weekly Image-Based Neurosurgical Cases and the Neuroanatomy Case Challenges on Instagram to engage followers.



ABRAR AHMED

MD Candidate (2025), Western

Abrar is passionate about neuroscience, innovation, health policy and global health. He has an interest in having a career in neurosurgery. He is excited to help medical students learn about neurosurgical research through his role as CaMSIGN's Junior Blog Manager.

CAMSIGN TEAM

Previous CaMSIGN Members



DR. JASLEEN SAINI

MD, PGY-1 Neurosurgery, Toronto

Jasleen Saini is a PGY-1 neurosurgery resident at the University of Toronto. He recently graduated from the Doctor of Medicine program at the University of Saskatchewan. During his undergraduate degree, he completed an honours project working on animal models of epilepsy and neurodegenerative diseases. His current academic interests include pituitary adenomas and meningiomas. He enjoys playing soccer, mountain biking, and exploring new restaurants in the city. As CaMSIGN's previous Senior Blog Manager, Jasleen looks forward to helping students learn more about neurosurgical residencies in Canada. As a resident member, he currently sits on CaMSIGN's Advisory Board Committee.



EMMA SWAN

MD Candidate (2024), UBC

Emma Swan is currently a third-year medical student at the University of British Columbia. Her background is within medical biochemistry, but she became fascinated by the complexities of the nervous system early in her education. By attending CaMSIGN events throughout her first year of medical school, deepened her interest in the field of neurosurgery. Emma joined the CaMSIGN Team as the Internal Communications Officer from November 2021 to August 2022 to share her passion and work with like-minded people. She contributed to the group by organizing tasks and keeping track of important deadlines. Furthermore, she ensured that summaries of each CaMSIGN event is recorded in writing and for archive purposes.

ADVISORY BOARD COMMITTEE

Faculty Members



DR. MOJGAN HODAIE

MD, MSc, FRCSC
Professor, Dept. of Surgery
University of Toronto
Staff Neurosurgeon, TWH



DR. SUNIT DAS

MD, MA, PhD, FAANS
Assoc. Professor, Dept. of Surgery
University of Toronto
Neurosurgeon-Scientist, SMH, SickKids



DR. ROLANDO DEL MAESTRO

MD, PhD, FRCSC, FACS, DABNS
Professor Emeritus, Dept. of Surgery
McGill University
Director, NeuroSim



DR. MOSTAFA FATEHI

MD, MSc, FRCSC
Division of Neurosurgery
University of British Columbia
Staff Neurosurgeon, VGH

Resident Members



DR. NICHOLAS SADER

MD, MSc, PGY-6
Neurosurgery Resident
University of Calgary



DR. JENNA SMITH-FORRESTER

MD, MSc, PGY-3
Neurosurgery Resident
Dalhousie University



DR. JASLEEN SAINI

MD, PGY-1
Neurosurgery Resident
University of Toronto

DETAILED COMMENTARY ON THE YEAR PASSED

Two years have passed since the inception of CaMSIGN in September of 2020. Our mission has been consistent to unify and bring together keen medical students with seasoned neurosurgeons and residents in fostering a culture of positivity surrounding neurosurgery. Our scope of work has grown to encompass over 20+ events with 600+ attendances in our collective events.

We have expanded our team to ensure a diverse representation of medical students across different years in neurosurgery. Consequently, we have new goals and aspirations to pursue together as a group: such as the creation of the CaMSIGN Blog which has been used as a platform for dissemination of key neurosurgery papers. These papers summarize and provide a glimpse to landmark studies in the field.

Additionally, the CaMSIGN Blog focuses on curating resources for the CaRMS neurosurgery applicants. Through interview questions and an interactive timeline of the match, CaMSIGN is acting as a companion of residency applicants. We believe that more resources and a unified platform would not only reduce the already stressful process of the match, but provide a great avenue for incoming applicants to connect with one another. Our group organized the first annual Neurosurgery CaRMS night event during which Program Directors across the country introduced their program to medical students of all years. Subsequently, the neurosurgery post-CaRMS match talk featured many of the incoming PGY-1's across the country to share pearls of wisdom and some highlights about the work they have done. Aligned with our mission of creating an intimate and safe environment, breakout rooms were assigned and students had the opportunity to not only ask their most pertinent questions, but to reach out to residents for further questions and queries. These were only some of the steps to foster connections among students and reduce the burden imposed by COVID-19 as well as the virtual world/Zoom screens that have become commonplace.

CaMSIGN's platforms have also grown through this period. One of the key moments in this direction has been the expansion of our social media platforms: CaMSIGN's Instagram account (@ca_msign). This has garnered attention through its weekly neuroanatomy cases and introduction to subspecialty topics: TBI, Vascular, Pediatrics, Spine and Oncology. Through stories and multiple choice options, it has been a pleasant surprise to see medical students, residents and even faculty engage with our posts. Each case is summarized with the key insights and archived on our platform. Moreover, our Facebook and Twitter page has seen a dramatic increase in viewership.

CaMSIGN began a new chapter in promoting medical education across provincial and national conferences. The first peer-reviewed publication of CaMSIGN, a paper that documents its mission and goals was published in the Canadian Journal of Neurological Sciences (doi:10.1017/cjn.2022.11) alongside the advisory board of CaMSIGN. Our group has been equally thrilled to present three posters at the 2022 Ontario Student Medical Education Research Conference. Our team also had the opportunity to present a poster at the Canadian Neurological Sciences Federation in Montreal in June 2022.

This past year, our long standing goal of receiving a Tier-1 Grant from the Canadian Federation of Medical Students

DETAILED COMMENTARY ON THE YEAR PASSED

(CFMS) was achieved. This generous grant, worth $2,500, was established in response to the increasing number of medical student-run initiatives and the need for official and financial support from the national student organization. The award will grant CaMSIGN the unique opportunity to fund new projects and initiatives that the team will be implementing in the following year.

CaMSIGN recognizes that Francophone and Anglophone traditions in Canada should also be reflected in the content we create and post. As such, we are delighted to share that all the content available on our website is now available in both English and French and will continue to be accessible in both languages. While CaMSIGN has been recognized nationally, it is our goal to strengthen our connections with Francophone schools. This is one of the other tasks of our French Ambassador in bringing these aims to fruition.

Concurrently, with all the new work we have been conducting, our events and themes have been continuing in earnest. Our sub-categorized headings of “Innovation, Creativity, & Neurotechnology”, “Women in Neurosurgery”, “Research and Clinical Care” and “The Road to Success” continue to be populated with new content and that brings us great excitement.

There is no question that the dreams and aspirations of CaMSIGN cannot be reduced to our team alone. We have been the beneficiary of an incredible support group that has been made possible through the CaMSIGN Advisory Board, Canadian medical schools, neurosurgery programs across the country and those who believe in our cause. With this support, we also feel the weight of the responsibility on our shoulders and promise to keep the vows that CaMSIGN will continue to provide opportunities, resources, educational platforms and spearhead medical student advocacy for more equitable representation in neurosurgery. We hope that you, the readers, will enjoy reading this document and please note that all suggestions for improvement and feedback is always welcomed.



CAMSIGN'S ACHIEVEMENTS

Over the past year, CaMSIGN has achieved several memorable recognitions as it strives to accomplish its mission. The group began a new chapter in promoting medical education across provincial and national conferences. In April 2022, CaMSIGN's first peer-reviewed paper detailing the organization's foundation and goals was published in the Canadian Journal of Neurological Sciences alongside the advisory board of CaMSIGN (doi:10.1017/cjn.2022.11).

The Inception of the Canadian Medical Student Interest Group in Neurosurgery (CaMSIGN): A Student-Led Platform Dedicated to Neurosurgical Education, Research, Mentorship, and Advocacy

Saman Arfaie[1], Pedram Laghaei Farimani[2], Mohammad Sadegh Mashayekhi[2], Benyamin Hakak-Zargar[3], Mostafa Fatehi Hassanabad[4], Jenna Smith-Forrester[5], Nicholas Sader[4], Mojgan Hodaie[6], Rolando Del Maestro[7] and Sunit Das[6]

[1]Faculty of Medicine, McGill University, Montréal, Quebec, Canada, [2]Faculty of Medicine, University of British Columbia, British Columbia, Canada, [3]School of Medicine, Deakin University, Victoria, Australia, [4]Division of Neurosurgery, University of Calgary, Alberta, Canada, [5]Division of Neurosurgery, Dalhousie University, Nova Scotia, Canada, [6]Division of Neurosurgery, University of Toronto, Ontario, Canada and [7]Neurosurgical Simulation and Artificial Intelligence Learning Centre, Department of Neurology and Neurosurgery, McGill University, Quebec, Canada

At the provincial level, the group presented three posters at the 2022 Ontario Student Medical Education Research Conference on its CaRMS initiative, Women in Neurosurgery series, and multimedia engagements. At a national level, the team also had the opportunity to present a poster at the Canadian Neurological Sciences Federation in Montreal in June 2022 highlighting CaMSIGN's growth (doi:10.1017/cjn.2022.234).

CANADIAN NEUROLOGICAL SCIENCES FEDERATION
FÉDÉRATION DES SCIENCES NEUROLOGIQUES DU CANADA

The Canadian Medical Student Interest Group in Neurosurgery (CaMSIGN) platform: a retrospective study on Canadian medical students

S Arfaie (Montreal) *MS Mashayekhi* (Vancouver) *PL Farimani* (Vancouver)* *B Hakak-Zargar* (Geelong) *P Kawalec* (Winnipeg) *J Saini* (Saskatoon)* *ER Swan* (Vancouver) *DJ Sonfack* (Laval), *A Ahmed* (London)

Last but not least, CaMSIGN received the Tier-1 Grant award from the Canadian Federation of Medical Students. This generous grant, worth $2,500, was established in response to the increasing number of medical student-run initiatives and the need for official and financial support from the national student organization. This award is intended to fund new projects and initiatives that CaMSIGN will be implementing in the following year.







WOMEN IN NEUROSURGERY

WOMEN IN NEUROSURGERY

PUSHING FRONTIERS: SYSTEMS LEADERSHIP IN NEUROSURGERY, BASIC SCIENCE RESEARCH & MENTORSHIP

January 15, 2022 | View Recording

Dr. Gelareh Zadeh is the Dan Family Chair and Professor of Neurosurgery, University of Toronto. She is Head of the Department of Neurosurgery at Toronto Western Hospital and Co-Director for the Krembil Brain Institute at University Health Network. She is also a Senior Scientist at Princess Margaret Cancer Centre where she runs a translational research program at MacFeeters-Hamilton Neuro-oncology Program.

Professor Zadeh has a dedicated neuro-oncology and skull base practice, which includes a skull base clinic, brain metastases, pituitary clinic, and neurofibromatosis clinics. In parallel, she has an active research laboratory focusing on integrated multi-platform molecular analysis of brain tumors, and understanding their molecular response to targeted therapies.

In this incredibly insightful event, Professor Zadeh reflected on her journey and trajectory to a successful career as a neurosurgeon-scientist. She further emphasized the importance of leadership, academia, and mentorship. This event was well received by numerous medical students across Canada as well as several residents.



DR. GELAREH ZADEH
MD, PhD, FRCS(C), FAANS

TARGETING CLONAL HETEROGENEITY IN TREATMENT-REFRACTORY GLIOBLASTOMA WITH EMPIRIC POLYTHERAPY

February 8, 2022 | View Recording

Dr. Sheila Singh is the Chief Pediatric Neurosurgeon at McMaster Children's Hospital and Professor of Surgery and Biochemistry. She is Division Head of Neurosurgery at Hamilton Health Sciences, and the inaugural Director of McMaster's new Cancer Research Centre: Centre for Discovery in Cancer Research. She holds a Tier 1/Senior Canada Research Chair in Human Brain Cancer Stem Cell Biology, and is Director of the McMaster Surgeon Scientist Program.

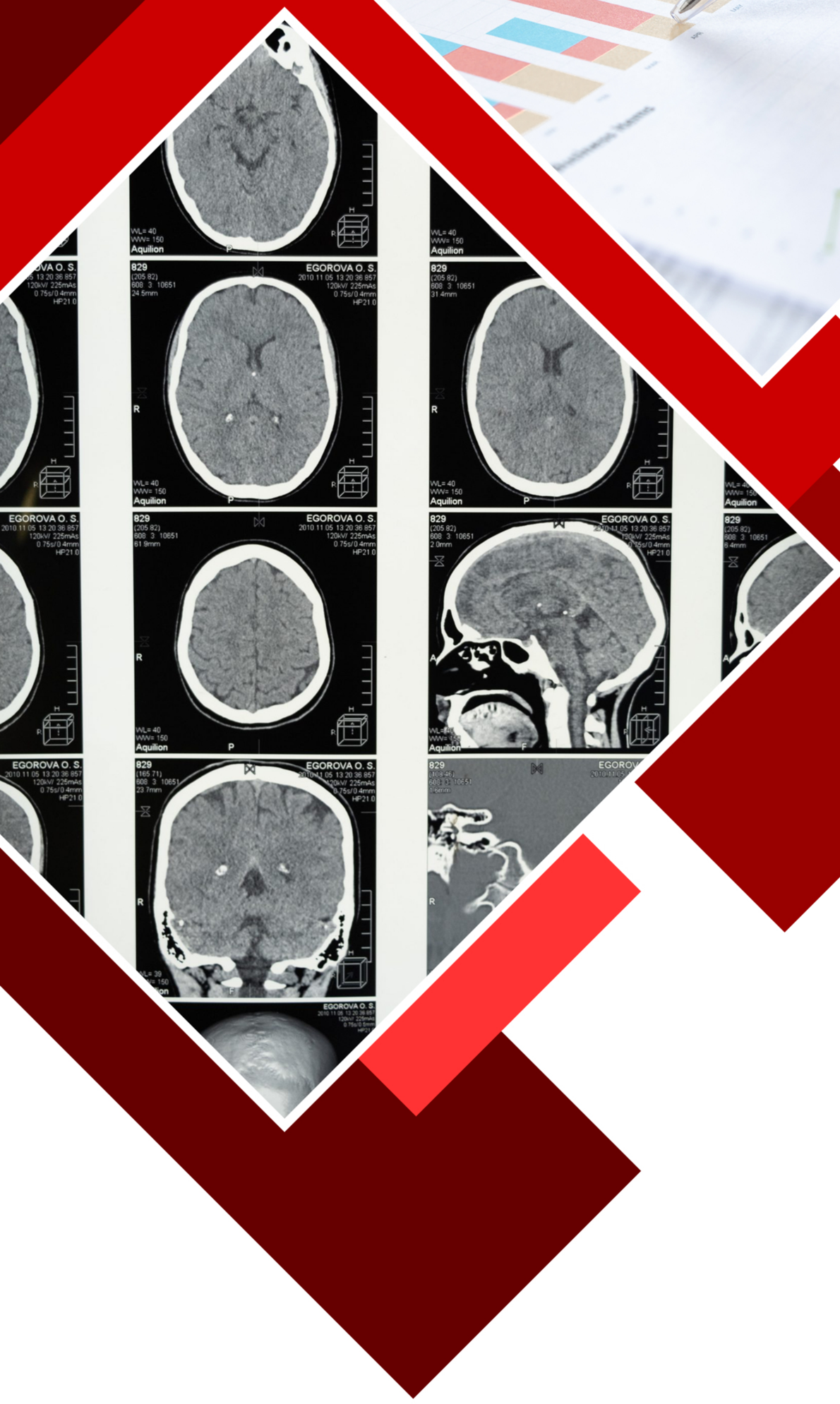
Since 2007, Professor Singh's lab applies a developmental neurobiology framework to the study of brain tumorigenesis. Building upon previous cell culture techniques, and through development of a xenograft model to efficiently study brain tumour initiating cell activity, her lab aims to understand the molecular mechanisms that govern their self-renewal.

As a neurosurgeon-scientist at the forefront of pediatric neuro-oncology, it was an honour for CaMSIGN to welcome Professor Singh in sharing some of her cutting-edge discoveries. She also shared valuable insights about starting a laboratory as Principal Investigator, maintaining academic commitments, and excelling in neurosurgery. This event welcomed a large group of Canadian medical students from varied programs.



DR. SHEILA SINGH
MD, PhD, FRCS(C)







RESEARCH AND CLINICAL CARE

RESEARCH AND CLINICAL CARE

UBC Neurosurgery Case of the Month

This series is co-led by UBC Neurosurgery Residents, and focuses on clinical teachings related to variety of cases within different subspecialties of neurosurgery.

Cases are delivered as correlative rounds with relevant history and physical, imaging and pathology, followed by general teaching around each topic including clinical features, assessment, management and more. The intention is to introduce and expose medical students to important concepts within the different domains of neurosurgery. Learners are encouraged to ask questions and participate as a group. Each case is a great opportunity to build on clinical reasoning and understanding. At the end of presentations, the residents would conclude with key pearls that would be valuable in preparation for neurosurgical electives as well as other surgical electives at large.



DR. OLIVER AYLING
MD, Spine Fellow, University of Miami



DR. MIKE CRAIG
MD, Neurosurgery PGY-6



DR. MICHAEL RIZZUTO
MD, Neurosurgery PGY-4

1. INTRACRANIAL ANEURYSMS
August 5, 2021

2. SPINE SURGERY
October 14, 2021

3. NEUROSURGICAL ONCOLOGY
January 27, 2022

4. REVIEW OF NEUROTRAUMA
May 26, 2022

Other Events

A BRIEF INTRODUCTION TO BRAIN TUMOURS: CASE-BASED MEDICAL STUDENT HOT SEAT

Dr. Amit Persad, July 23, 2021

On July 23rd, 2021, the CaMSIGN Team welcomed Dr. Amit Persad from the University of Saskatchewan for the second episode within the "Medical Student Hot Seat" series. The event simulated an interactive session mimicking neurosurgery electives and rounds. Medical students were encouraged to discuss five unique cases related to brain tumours, namely (1) supratentorial intra-axial tumour, (2) supratentorial extra-axial tumour, (3) posterior fossa tumour in adults, (4) posterior fossa tumour in children, and (5) multiple tumours. Participants had the opportunity to practice their clinical knowledge pertaining to the differential diagnosis, treatment, and complications of these five cases.

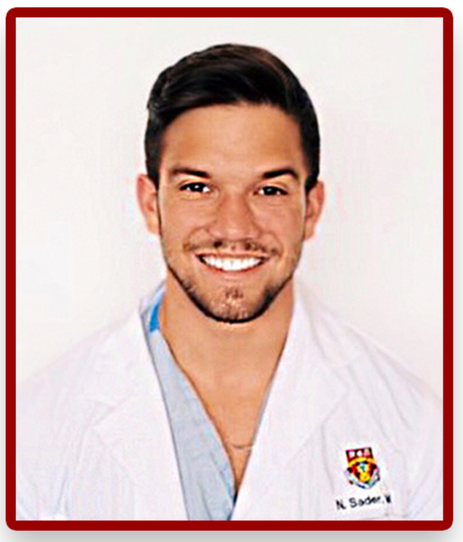


DR. AMIT PERSAD
MD, PGY-6 Neurosurgery, USask

TEACHINGS ON PEDIATRIC NEUROSURGERY: CASE PRESENTATIONS FOR MEDICAL STUDENTS

Dr. Nick Sader, September 9, 2021

For its next episode within the "Medical Student Hot Seat" series, CaMSIGN welcomed Dr. Nick Sader to lead case discussions related to pediatric neurosurgery. This was a great opportunity for medical students to participate, learn, and practice their clinical skills in a safe and judgement-free environment in order to prepare for their neurosurgery rotations or electives. The cases discussed were related to posterior fossa tumours and myelomeningoceles.



DR. NICK SADER
MD, MSc, PGY-6 Neurosurgery, UCalgary

CASE SESSION: MICRONEUROSURGICAL VIDEO CASES FOR MEDICAL STUDENTS

Dr. Amit Persad & Dr. Nicole Pendleton, February 28, 2022 | View Recording

CaMSIGN was pleased to welcome Dr. Amit Persad and Dr. Nicole Pendleton at University of Saskatchewan Neurosurgery in co-leading an interactive case-presentation session involving microneurosurgical videos. This was a unique opportunity for medical students to virtually "shadow" neurosurgery at the University of Saskatchewan and practice their clinical approach to the following cases: (1) Clipping of an aneurysm involving the middle cerebral artery, (2) translabyrinthine craniotomy for vestibular schwannoma, (3) spinal dural arteriovenous fistula, (4) retrosigmoidal craniotomy for a collision tumour, and (5) microvascular decompression for trigeminal neuralgia.



DR. NICOLE PENDLETON
MD, BSP, PGY-3 Neurosurgery, USask

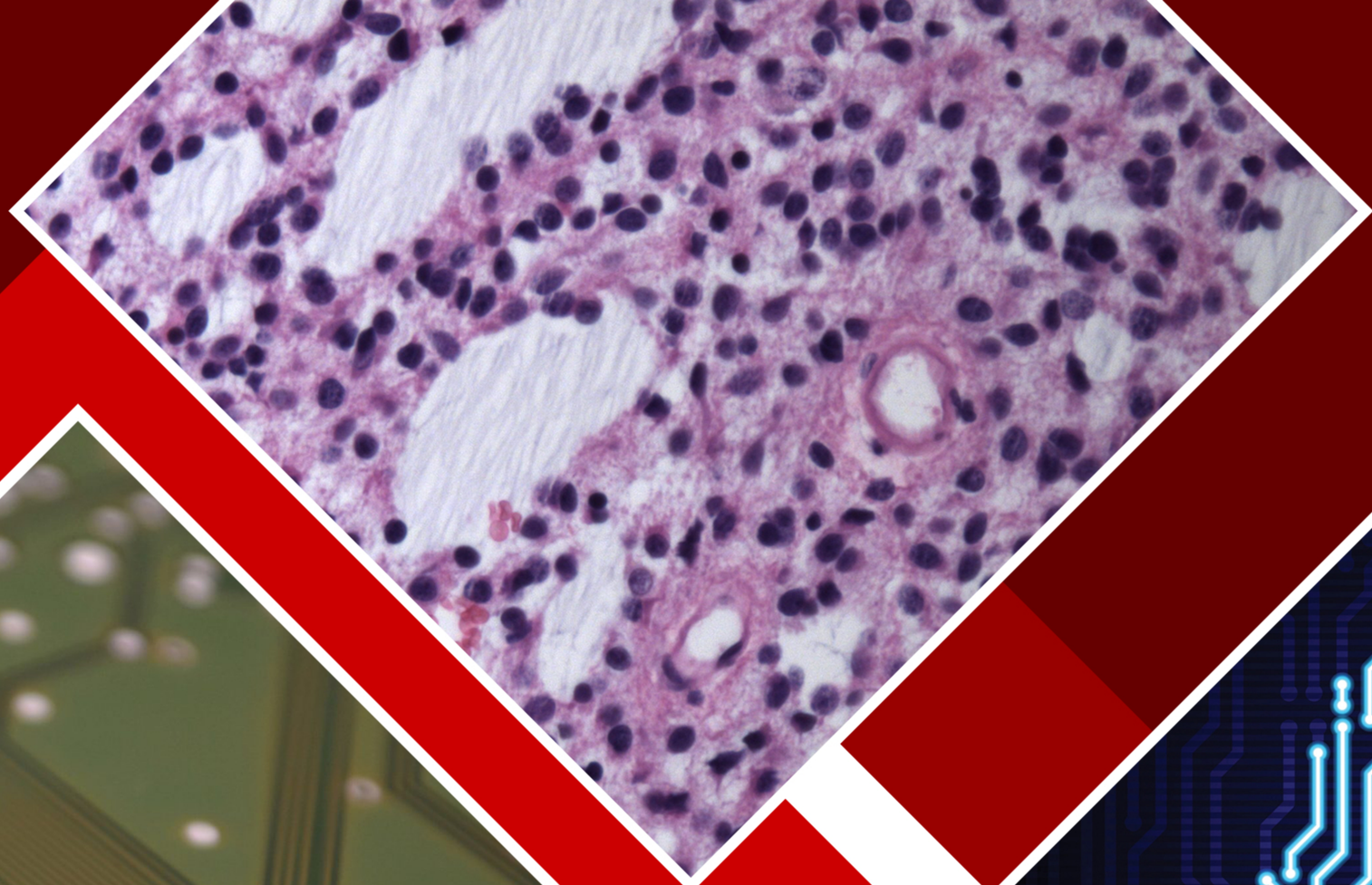
INTRODUCTION TO NEUROVASCULAR SURGICAL ANATOMY

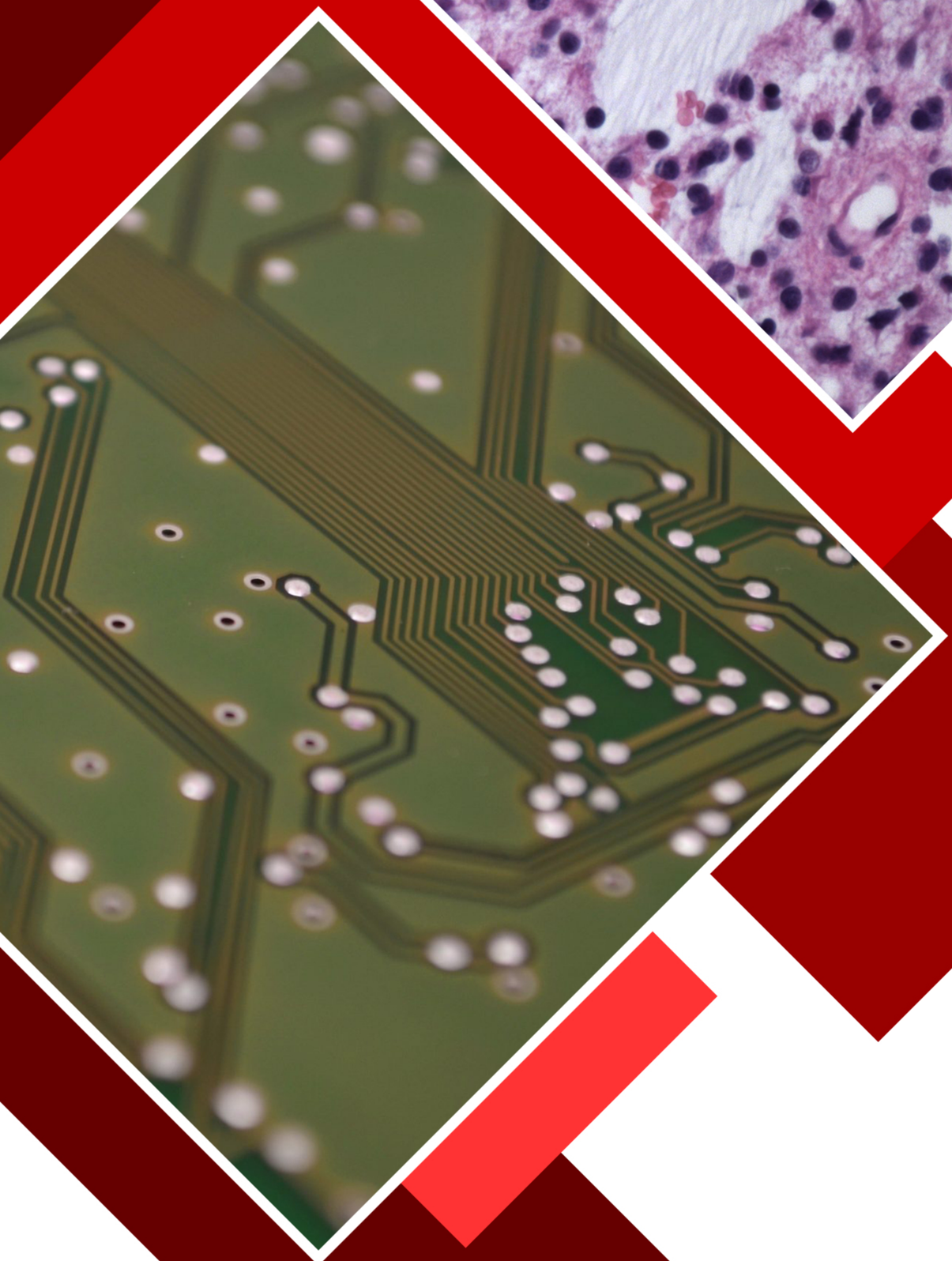
Dr. Alex Rebchuk, June 7, 2022

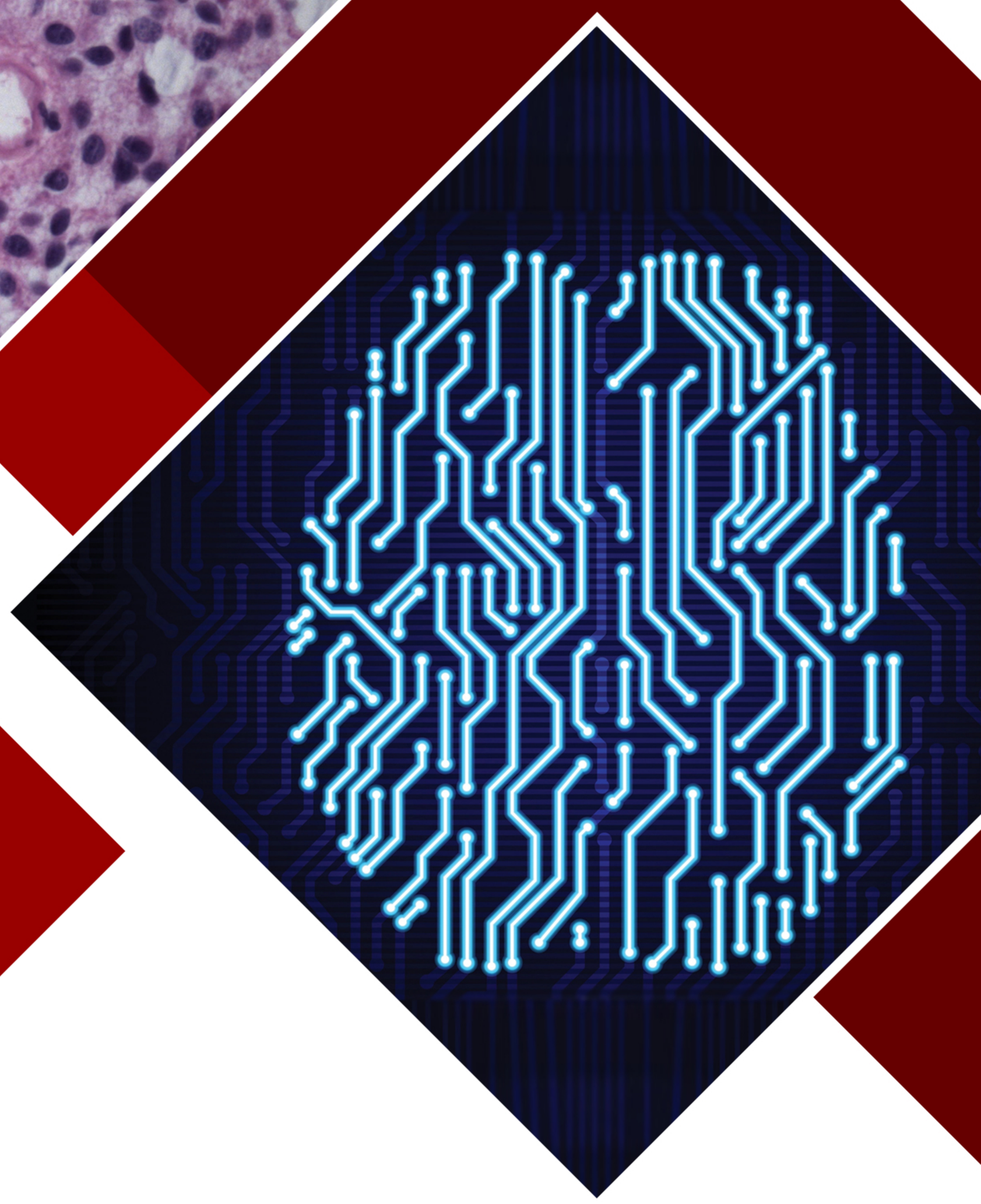
On June 7th, 2022, CaMSIGN welcomed Dr. Alex Rebchuk to present on neurovascular anatomy as it pertains to neurosurgery. This was an excellent opportunity for all medical students to review and strengthen their knowledge of neuroanatomy. Furthermore, Dr. Rebchuk shared a few words of wisdom for those hoping to pursue a surgical career, which was then followed by a brief Q&A period.



DR. ALEX REBCHUK
MD, MSc, PGY-3 Neurosurgery, UBC







INNOVATION, CREATIVITY AND NEUROTECHNOLOGY

INNOVATION, CREATIVITY & NEUROTECHNOLOGY

FROM NEURON TO NEUROTECHNOLOGY: JOURNEYS IN EPILEPSY RESEARCH AND NEUROSURGICAL LEADERSHIP

November 8, 2021 | View Recording

Dr. Taufik Valiante is a Staff Neurosurgeon (Epilepsy Surgery, Minimally Invasive Spine Surgery, and Cranial Neurosurgery) and Surgeon-Scientist at University Health Network and Department of Surgery, University of Toronto. He is interested in understanding the building blocks of the human brain, and the ultimate manifestation of their collective activity. His collaborations with amazing scientists and students allow him to contribute to research on memory, eye movements, epilepsy, biophysical properties of neurons, computational modelling, mathematical modelling, neuromodulation, development of physical tools, and brain machine interfaces.

CaMSIGN had the pleasure to host Professor Valiante in the first episode of its "Innovation, Creativity & Neurotechnology" series, aimed to assess the evolution and incorporation of advanced technologies in the field and the future of neurosurgery. Professor Valiante discussed his passion for physics, how that translated into investigative research in computational neuroscience, and his journey of growth. The talk was well received by numerous medical students across Canada and provided an intimate conversation on a personal, scientific and clinical ground, highlighting the emerging neurotechnology ecosystem.



DR. TAUFIK VALIANTE
MD, PhD, FRCS(C)

OPEN SCIENCE & ADVANCED DIAGNOSTICS: FROM VIRCHOW TO VIRTUAL MEDICINE – PATHOLOGY IN THE 21ST CENTURY

March 17, 2022 | View Recording

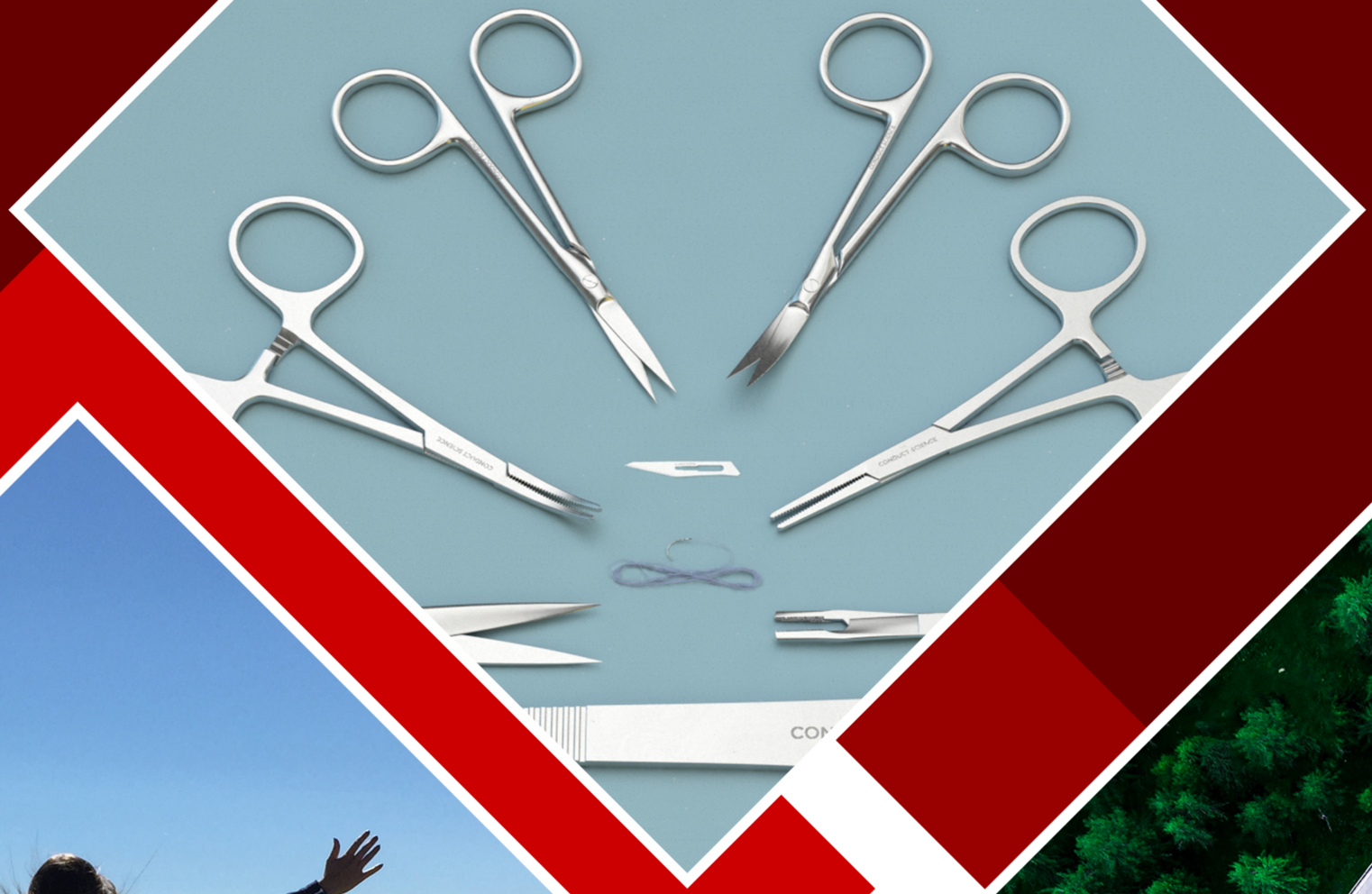
Dr. Jason Karamchandani is an Associate Professor in the Department of Pathology and is a neuropathologist at The Montreal Neurological Institute and Hospital. His clinical specialty is neuropathology and anatomic pathology. His research employs bioinformatic data to identify and characterize biomarkers relevant to the classification and prognosis of brain tumours and neuromuscular disorders.

Dr. Karamchandani also serves as the director of immunohistochemistry and special stains for the MUHC, program director for the McGill Anatomic Pathology residency program, and on the tissue and bio-banking committee of the MUHC research ethics board.

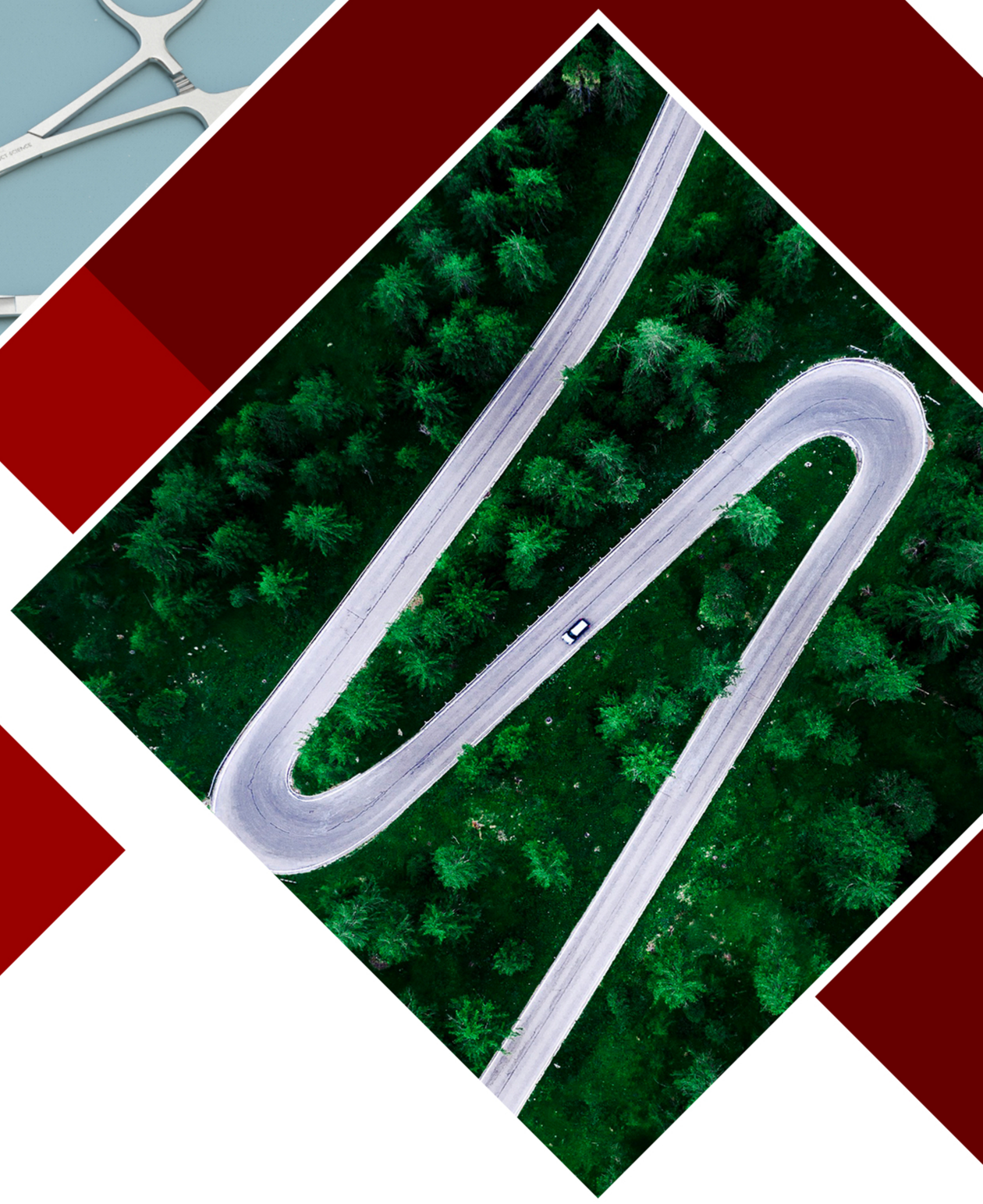
CaMSIGN was delighted to be hosting Professor Jason Karamchandani for its second episode of its "Innovation, Creativity & Neurotechnology" series. The first half of the lecture was dedicated to advanced diagnostics in neuropathology, explaining the real-life practice of diagnostic pathology in the 21st century. The second half of the lecture involved a discussion on Open Science and the dissemination of scholarly work. The event welcomed many Canadian medical students from varied programs.



DR. JASON KARAMCHANDANI
MD, Neuropathologist







THE ROAD TO SUCCESS

THE ROAD TO SUCCESS

CARMS NIGHT: OVERVIEW OF CANADIAN NEUROSURGERY PROGRAMS

October 27 and 29, 2021 | View Recording

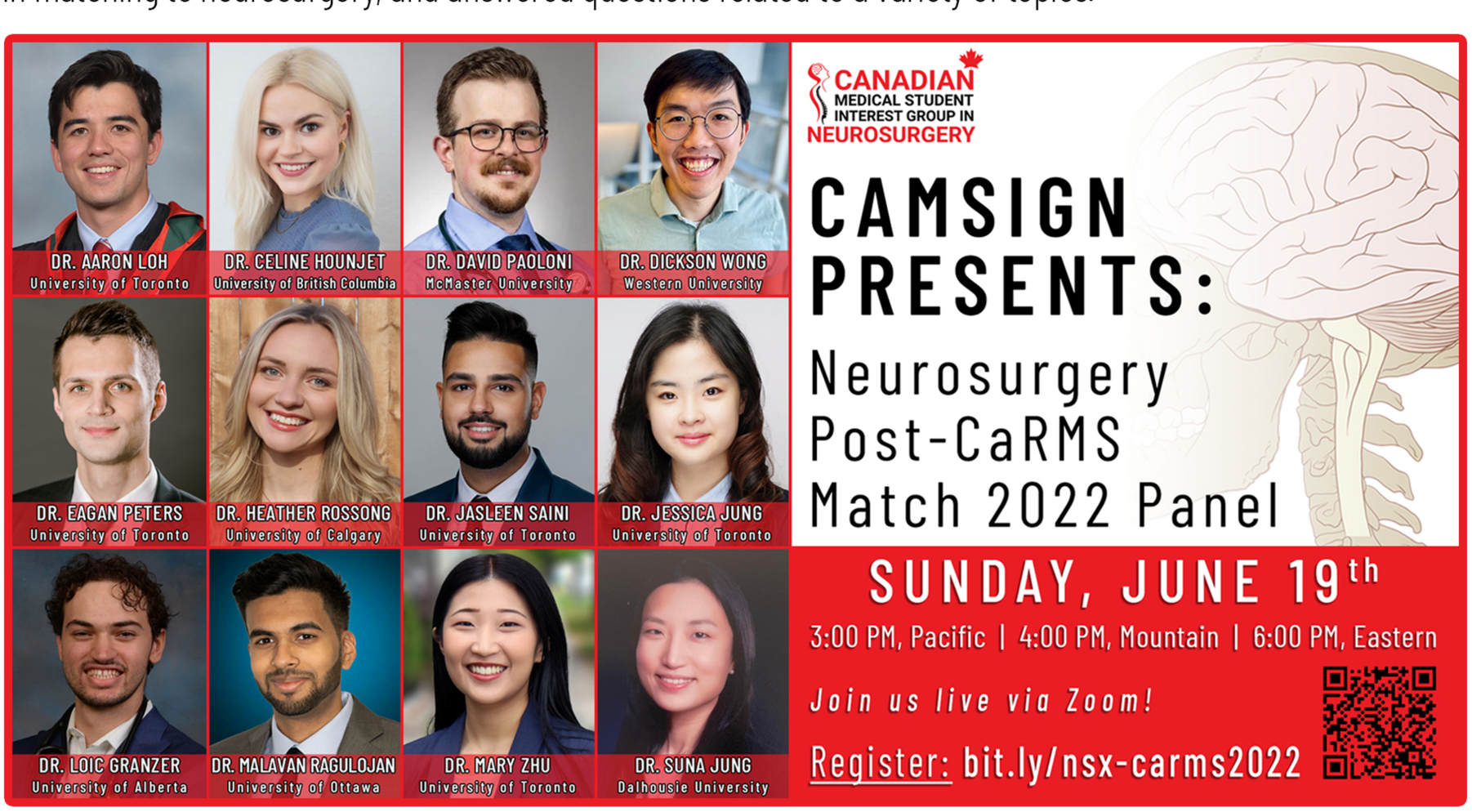
CaMSIGN had the pleasure of organizing the first cross-provincial CaRMS neurosurgery program overview, featuring 10 neurosurgery programs across Canada. The goal of this initiative was for students to engage with different Program Directors to familiarize themselves with each neurosurgery residency program, their culture, unique features and what it would be like to be trained at that respective institution.



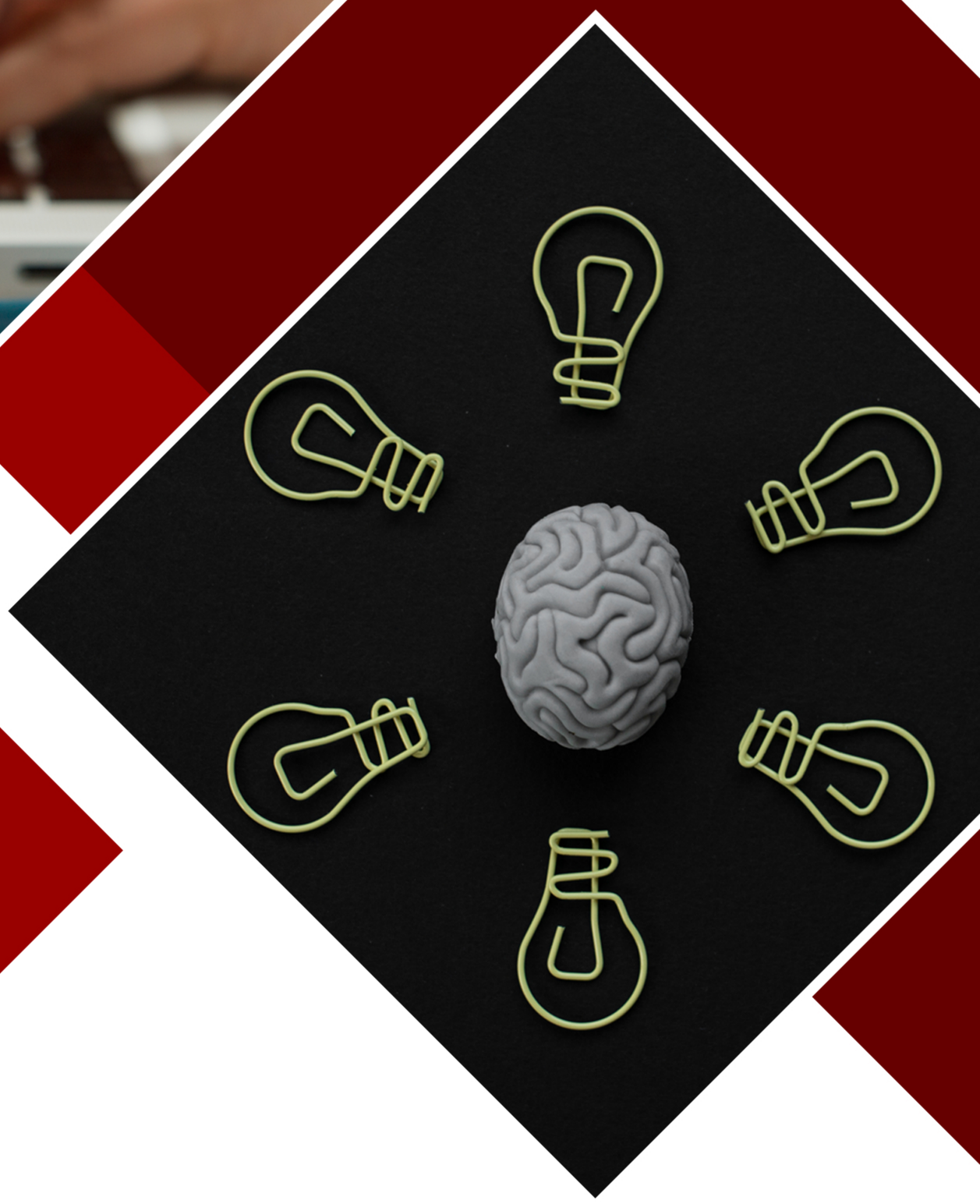
NEUROSURGERY POST-CARMS MATCH 2022 PANEL

June 19, 2022

CaMSIGN was delighted to host several incoming neurosurgery PGY-1 residents with the intention of supporting prospective CaRMS applicants applying to Canadian neurosurgery programs. The panelists discussed their experiences with the CaRMS process, why they chose neurosurgery, their trajectories in matching to neurosurgery, and answered questions related to a variety of topics.







CAMSIGN BLOG AND RESOURCES

CAMSIGN BLOG & RESOURCES

About the CaMSIGN Blog

The CaMSIGN Blog is an educational platform for the dissemination of key papers related to neurosurgery. These papers summarize and provide a glimpse to landmark studies in the field. Aside from academia, the CaMSIGN Blog additionally aims to share resources for medical students preparing to pursue neurosurgery for their residency.

This initiative is co-led by Jasleen Saini (PGY-1, University of Toronto) and Abrar Ahmed (Western University). To date, the team has featured summaries of key papers in the field of neurosurgery ranging from basic science, translational research, and clinical findings, as well as a list of 62 sample CaRMS interview questions to guide those preparing to apply to neurosurgery across Canada. As CaMSIGN grows, we envision this initiative to morph into a central hub for neurosurgical research summaries and encourage further pursuit of research by medical students in Canada and beyond.

Blog Posts to Date

The North American Symptomatic Carotid Endarterectomy Trial: A Brief Summary for Medical Students

November 10, 2021
"Atherosclerotic lesions of the carotid artery bifurcation are a common cause of stroke. In patients with extracranial carotid artery disease, ..." — *continue reading here.*

CaRMS Neurosurgery Residency Interview Preparation

February 26, 2022
"It's that time of the year again! CaRMS applications are submitted, reference letters are in, ..." — *continue reading here.*

Delivery of Trastuzumab to Her2-positive Brain Metastases using MR-guided Focused Ultrasound: A Summary for Medical Students

March 3, 2022
"The blood brain barrier (BBB) protects the central nervous system from foreign toxins and pathogens. However, this preservatory measure hinders otherwise effective therapeutics from acting on the brain. This is a key ..." — *continue reading here.*

A Randomized Controlled Trial of Surgery for Temporal-Lobe Epilepsy: A Summary for Medical Students

July 23, 2022
"Surgery is a viable therapeutic option for patients with intractable temporal lobe epilepsy. However, it was not always the case. Until a landmark investigation ..." — *continue reading here.*

FUTURE EVENTS, GOALS & DIRECTIONS

CaMSIGN is committed to continued progress of delivering and disseminating resources for medical students across Canada. As a national non-profit initiative, we strive to engage and broaden student interest in neurosurgery from multiple different angles. Aligned with our hope to bring new ideas onto the canvas, we have the following objectives in mind for the following year:

Global Neurosurgery

By inviting several leaders within the field, we plan to organize a panel on *Global Neurosurgery* to shed light on the intersection of public health and neurosurgery. Speakers will be asked to kindly share their experiences with global neurosurgery and discuss its importance and impact worldwide.

Neurosurgery Bootcamp

In collaborating with neurosurgery residents across Canada, the CaMSIGN neurosurgery virtual bootcamp aims to offer a comprehensive introduction to all the different subspecialties of neurosurgery for learners. This full-day workshop will consist of interactive presentations and cases for students to engage with. The intention is to provide an immersive exercise for students to guide their preparation for clerkship and electives.

CaMSIGN Modules

This initiative aims to launch several interactive modules in hopes of walking students through the clinical features, evaluation, anatomy, pathogenesis, differential diagnosis, management and prognosis of common neurosurgical presentations that learners are expected to encounter during their rotations. The goal of these modules is to provide a safe learning environment for medical students to attempt answering questions and fill gaps in their knowledge.

An Interdisciplinary Approach

CaMSIGN intends to organize collaborative workshops involving experts within neurosurgery, neurology, neuroradiology, neuropathology, and neuropsychiatry with the goal of familiarizing learners with the intersection of these disciplines as it relates to better patient care and management.

