

CAS

ANESTHESIA NEWS

VOLUME 34 • SEPTEMBER 2019 • NUMBER 3



CANADIAN ANESTHESIOLOGISTS' SOCIETY

TABLE OF CONTENTS

- 01 Message from the President
- 02 2019–2020 Board of Directors
- 03 CAS 2019 Annual Meeting Highlights
- 05 Member News
- 08 New CAS Section: Hospital Chiefs of Anesthesia
- 10 Introducing the Current and Incoming CAS Committee Chairs
- 11 **IN MEMORIAM:**
Dr Brian Kavanagh
- 13 **IN MEMORIAM:**
Dr David Skene
- 14 **IN MEMORIAM:**
Dr Charles Brian Warriner
- 15 CARF Shares Good News
- 16 Recognizing and Valuing Diversity in Our Work and Profession
- 17 Spotlight on the CEPD Committee
- 18 2019 First Place CAS Student Essay
- 21 Self-Assessment Program from the CJA-CPD Online



MESSAGE FROM THE PRESIDENT



“As I start my second and final year as president, I would like to briefly reflect on the past year.



It was truly a pleasure to be able to attend many regional meetings and meet many fellow anesthesiologists. It was clear that we all share a passion for our profession and concern about our current and future working conditions, and the condition of Canadian health care in general. The opioid crisis was and is in full swing and I was interviewed by many media outlets and took part in many panels on an epidemic crisis affecting our country and many others. For the first time in many years, the life expectancy of a Canadian did not increase, owing chiefly to the thousands who have died as a result of opioid addiction. I was also actively involved with Health Canada addressing the shortage of Succinylcholine, which impacted many locations across the country.

Internally, based on the results of a member survey and key volunteer interviews, we developed a three-year strategic plan for CAS, including a mission, vision, and goals review. The resulting plan will be rolled out over the next several months. Finally, we created a brand-new website with the goal of providing greater communication, in a timelier and more user-friendly manner compared to our old antiquated site. I invite you to check back often www.cas.ca as new features will be rolled out over the next six months.

The Annual Meeting was held in Calgary this year, a triumphant return to the city following the flooding in 2013. The pre-meeting workshops, including a wellness workshop and POCUS workshops, were well-attended and the feedback from both these events was excellent. The meeting was again live streamed over the internet as a webinar, allowing individuals in remote locations or with limited ability to attend the meeting owing to clinical commitments to still receive live CME. Thank you to all the sub-specialty chairs, meeting chairs, and others who developed the topics and invited speakers to the meeting.

...continued from page 1

Thank you to the accomplished speakers, including Dr Kate Leslie and Dr Patricia Houston, who took time out of their busy schedules to present their talks. And finally, a special thanks to Dr Adriaan Van Rensburg, Annual Meeting Chair, for his expertise in organizing the meeting, and Dr Jordan Tarshis, CEPD Chair, for his help in education and accreditation.

We have continued to develop our CAIRS (Canadian Anesthesia Incident Reporting System) program, with the oversight committee now being led by Dr Kathryn Sparrow, and encourage all members to view and test the system online at www.cairs.ca. The system can now be imported and used as a local incident reporting system with local access to entered incidents and with the storage at a national level. This, we hope, will encourage individual centres to participate in CAIRS. If you have further questions about the system, I would encourage you to contact CAS directly.

Although not traditionally a year of transitions, in August our Secretary, Dr David McKnight, completed his term. I would like to thank him for his many years serving on various CAS committees and his role as secretary with the executive. It was truly a pleasure working with you and your insights will be missed at the Board.

Finally, my theme for the past year, which I carry over to the next, is CAS is your society and we advocate on your behalf, which means we need your involvement! I again strongly encourage all members to take an active role and give us your feedback! Put your name forward to become a member of a CAS committee, section, or division—we want to encourage you to take an active role in your Society. Nominate deserving members for the annual awards—think outside the box as maybe someone you know working behind the scenes isn't getting all the recognition they deserve. Help build Canadian research by becoming involved: submit your abstracts to the Annual Meeting so we can learn about cutting-edge anesthesiology. Submit your grants so we can support advances in anesthesiology. It is so important to become engaged in the specialty to improve anesthesiology across Canada. I look forward to working together with all of you to shape the future of our specialty.

I welcome comments and suggestions from members and encourage you to contact me directly at president@cas.ca.

Daniel Bainbridge
President

2019-2020 BOARD OF DIRECTORS

EXECUTIVE COMMITTEE

President: Dr Daniel Bainbridge, London, ON
Vice-President: Dr Dolores McKeen, Halifax, NS
Secretary: Dr Andrew Nice, Saint John, NB
Treasurer: Dr James Kim, North Vancouver, BC
Past President: Dr Douglas DuVal, Edmonton, AB

EXECUTIVE DIRECTOR (Non-voting):

Ms Debra Thomson

DIVISIONAL REPRESENTATIVES

Newfoundland & Labrador: Dr Angela Ridi, St. John's, NL
Prince Edward Island: Dr Jean-Yves Dubois, Charlottetown, PE
Nova Scotia: Dr George Kanellakos, Halifax, NS
New Brunswick: Dr John Murdoch, Fredericton, NB
Quebec: Dr Giuseppe Fuda, St-Laurent, QC
Ontario: Dr Monica Olsen, Toronto, ON
Manitoba: Dr Jennifer Plester, Winnipeg, MB
Saskatchewan: Dr Mateen Raazi (Interim), Saskatoon, SK
Alberta: Dr Michael Cassidy, Calgary, AB
British Columbia: Dr Michelle Scheepers, Vancouver, BC



2018-2019 CAS Board of Directors

Front Row: Jim Kim, Douglas DuVal, Daniel Bainbridge, Dolores McKeen, David McKnight. Back Row: Debra Thomson, Rohan Kothari, Hélène Pellerin, Dylan Bould, John Murdoch, Jennifer Plester, Michael Cassidy, Angela Ridi, Jean-Yves Dubois, Chris Harle (representing Monica Olsen), Giuseppe Fuda, Roanne Preston, Michelle Scheepers, George Kanellakos, Hilary Grocott

EX-OFFICIO MEMBERS (Voting)

ACUDA President: Dr Roanne Preston, Vancouver, BC
Resident Representative: Dr Rohan Kothari, Toronto, ON

INVITED GUESTS (Non-voting)

CJA Editor-in-Chief: Dr Hilary Grocott, Winnipeg, MB
CARF Chair: Dr Doreen Yee, Toronto, ON
CASIEF Chair: Dr Dylan Bould, Ottawa, ON
RCPSC Representative: Dr Hélène Pellerin, Québec, QC

CAS Annual Meeting

June 21-24, 2019
Calgary, Alberta



CAS President Daniel Bainbridge welcomes delegates at the Opening Ceremonies

CAS 2019 ANNUAL MEETING HIGHLIGHTS

Four days of Dynamic Presentations, Networking, Learning, and more

The Annual Meeting provides expert-led professional development opportunities and a collaborative atmosphere for stimulating discussion. The 2019 Annual Meeting was dynamic and sociable, offering excellent presentations and sessions with takeaways directly applicable to the modern practitioner. We would like to extend our sincere thanks to all the members who joined us at the Annual Meeting in June. The beautiful city of Calgary provided a lively backdrop for four days of educational programming, networking, celebrating, and catching up with friends.

All year, our committees and sections work tirelessly to create sessions and symposiums that focus on the leading edge of anesthesia practice and research. The scientific program did not disappoint, with expert speakers from across the globe presenting a superb educational program. Important as always was ensuring that members and delegates could obtain a meaningful number of Maintenance of Certification (MOC) credits while at the Annual Meeting. Over 16 hours of Section 1 CME credits showcased a diverse series of educational sessions including Pediatric Anesthesia, Cardiovascular and Thoracic,

and Chronic Pain. Thirteen PBLDs allowed for in-depth, hands-on discussions aimed at advancing the specialty. Together with PBLDs, there were a daily average of four hours of Section 3 CME credits available, including four pre-conference workshops and nine workshops covering a breadth of learning streams such as Regional and Acute Pain, Patient Safety, Ambulatory, and Obstetric Anesthesia.

Esteemed Professor Kate Leslie, specialist anesthetist and head of research in the Department of Anaesthesia and Pain Management, Royal Melbourne Hospital, delivered an inspiring Opening Plenary. Titled "Depth of Anesthesia and Long-Term Outcomes", it focused on the need for increased resources for monitoring and treating complications post-operatively. Following last year's success, the third annual Residents' Section Simulation Olympics was in full swing all-day Saturday with teams competing for first, second, and third prizes. The Exhibit Hall was a popular site throughout the weekend, with exhibitors showcasing the newest industry advances along with poster sessions and discussions on the latest research developments.

...continued on page 4



Fun Run for CARF Raises \$1,250!

[...continued from page 3](#)

The Section for Environmental Sustainability organized its first session on the “Environmental Impact of Anesthesia and Healthcare”, providing participants with the tools to minimize the environmental footprint in the operating room.

Physician wellness was an important topic this year, highlighted with two pre-conference workshops lead by Dr Mamta Gautam, a pioneer in the field of physician health and well-being, including “Turning Burnout into Joy” and “Achieving Well-Being Throughout and at End of Practice”. A resident session on wellness was also presented on Sunday, along with the Section on Education and Simulation in Anesthesia presenting a session on Monday on work-life balance with tips to integrate into your practice.

The opioid epidemic was an important topic at the Annual Meeting. The Ethics Symposium explored the anesthesiologist’s role in the crisis with a panel on “First do no harm: The Ethical Role of the Anesthesiologist in the Opioid Crisis”, which included a parent panelist, providing a community perspective on this epidemic. The Standards Symposium explored the experience of an anesthesiologist with a workplace opioid addiction and the John Wade Patient Safety Symposium looked at the role perioperative medicine plays in the crisis.

The social and networking events were not to be missed this year. The city of Calgary provided several unique venues to highlight the city’s jovial atmosphere. The annual Fun Run for CARF was well-attended with early risers who ventured through

downtown Calgary on a 5K run, raising money for anesthesia research in Canada. The CASIEF Family Fun dinner was hosted at the Calgary Zoo, featuring a special custom one-hour tour of “Destination Africa” and a fascinating talk by Dr Sandie Black, Head of Veterinary Services, titled “On the horns of a dilemma: Anesthesia for giraffes, gorillas, geckos, and other denizens of the wildlife world.” The aptly renamed President’s Party highlighted Calgary’s cowboy roots at the eye-catching Gasoline Alley Museum Gallery event space in Heritage Park Historical Village. Guests enjoyed line dancing lessons, delicious Alberta fare, and entertainment courtesy of energetic country rock quartet, Dirt Road Angels.

Dr Patricia Houston, Past-President of CAS and now Vice Dean of the MD Program at the University of Toronto, presented “We All Belong—Advancing Diversity, Equity, and Inclusion in Anesthesiology” as the Angela Enright Lecture. She discussed the importance of strategies to increase diversity and inclusion for medicine, anesthesiology, and society at large, and emphasized the important role of CAS to reach out to, support, align with, and recognize all the diverse individuals who are part of the anesthesiology community. As in 2018, the Awards Ceremony and Angela Enright Lecture were again combined into a sit-down luncheon as the perfect way to wrap up the meeting and connect with this year’s award winners. This year, attendees enjoyed a viewing of a historical video highlighting the years and history of CAS Honour and Research awards.

If you couldn’t attend this year, be sure to plan to join us in Halifax in 2020.

DR JOHN WADE APPOINTED TO THE ORDER OF CANADA



Order of Canada recipients: Dr John Wade, Dr Earl Wynands, and Dr Angela Enright

Dr John Wade was appointed to the Order of Canada as a Member, announced by Her Excellency the Right Honourable Julie Payette, Governor General of Canada, on June 27, 2019. The formal citation reads as follows: "Dr John Wade has been recognized for his contributions to medical education and practice in Canada, notably for his advocacy for patient safety and quality improvement in health care."

Over a long and industrious career, Dr Wade has been instrumental in numerous medical education and patient safety initiatives and held multiple academic and professional appointments. From 1992 to 1994, he chaired the Health and Public Policy Committee, which developed the CanMEDS proposal for the Royal College of Physicians and Surgeons of Canada. The proposal was accepted by the Royal College in 1996, and the CanMEDS model has now been adapted around the world. Dr Wade's interest in and commitment to patient safety has been present throughout his career. He chaired the Steering Committee for Canadian Patient Safety, which produced the report titled "Building a Safer System. A National Integrated Strategy for Improving Patient Safety in Canadian Healthcare". The report was presented to the Ministers of Health, and then the First Ministers, who approved the creation of the Canadian Patient Safety Institute (CPSI). The CPSI was established in 2003, with Dr Wade serving as the founding Board Chair. He also played a critical role in the establishment of the Manitoba Institute for Patient Safety in 2004.

These are just a few examples of the extraordinary effect Dr Wade's work has had on Canadian healthcare, all while holding other professional appointments including such roles as: Deputy Minister of Health (Manitoba), Dean, Max Rady College of Medicine, and Chair of Anesthesia at the University of Manitoba. He is currently both Professor Emeritus, Department of Anesthesia and Perioperative Medicine, Max Rady College of Medicine and Dean Emeritus, Max Rady College of Medicine, Rady Faculty of Health Sciences, at the University of Manitoba.

Dr Wade joins three other CAS members with Order of Canada appointments:

- Dr Earl Wynands, OC (1998)
- Dr Angela Enright, OC (2010)
- Dr Joanne Douglas, CM (2014)



DR ANGELA ENRIGHT RECEIVES HUMANITARIAN AWARD



Congratulations to **Dr Angela Enright**, recipient of the 2019 Royal College Teasdale-Corti Humanitarian Award.

A Past-President of both the CAS and the WFSA, Dr Enright is also an Officer of the Order of Canada. She is widely acclaimed for her global efforts to make anesthesia safe and accessible for all, and is a true champion of surgical and perioperative education, care, and safety. Frequently sought out for her expertise, Dr Enright has successes in setting up programs to reduce the loss of physician-trainees from low-income countries and in implementing the WHO Surgical Safety Checklist.

One of Dr Enright's greatest legacies is the development and distribution of low-cost pulse oximeters through the LifeBox Foundation. She has been recognized by the CAS with the Gold Medal and the naming of the Angela Enright Lecture at the Annual Meeting.

DR ALANA FLEXMAN RECEIVES AWARD FOR EXCELLENCE IN TEACHING

Dr Alana Flexman was awarded the Bobby Miller Award for Excellence in Teaching by the Vancouver Coastal Health (VCH)–Vancouver Medical, Dental and Allied Staff (VMDAS) Association, which annually honours remarkable physicians whose professional, research, and academic achievements inspire and change the world for the better.

Read more: www.vch.ca/about-us/news/physician-changemakers-applauded

Dr Flexman was also recently voted in as Secretary-Treasurer of the Society for Neuroscience in Anesthesiology and Critical Care starting in September 2019.

DRS JASON CHUI, ROSEMARY CRAEN, AND IAN HERRICK RECEIVE BEST OF MEETING AWARD AND TOP CLINICAL ABSTRACT

Drs Jason Chui, Rosemary Craen, and Ian Herrick were awarded the Best of Meeting Award and Top Clinical Abstract of the 47th annual meeting of the Society of Neurosurgical Anesthesia and Critical Care (2019) for their study, *Goal-directed therapy in endovascular coiling of aneurysmal subarachnoid haemorrhage patients - A pilot, prospective, blinded, parallel design, randomized controlled study.*

Read more:

www.schulich.uwo.ca/anesthesia/about_us/news/2019/07b.best_of_meeting_award_at_snacc.html

DR GIANNI LORELLO APPOINTED TO DIVERSITY ROLE

Dr Gianni Lorello was recently appointed as Chief Diversity Officer in the University of Toronto's Department of Anesthesia. In this role, Dr Lorello will help to promote the principles of equity, diversity, and inclusion.

CAS 2019 ANNUAL MEETING

THANK YOU TO OUR SPONSORS

The Canadian Anesthesiologists' Society gratefully acknowledges the 2019 Annual Meeting financial assistance of the following industry partners through educational grants

CORPORATE PARTNER



MERCK

INVENTING FOR LIFE

ASSOCIATE SPONSORS

abbvie

Medtronic



thePersonal

Home and Auto Group Insurer

CAS WOULD ALSO LIKE TO
THANK SUPPORTERS

Canadian Patient Safety Institute

CAE Healthcare

Cook Medical

Fujifilm SonoSite Canada Inc.

GE Healthcare

KARL STORZ Endoscopy Canada Ltd.

Philips

Trudell Medical Marketing Limited

Tourism Vancouver



CANADIAN ANESTHESIOLOGISTS' SOCIETY
SOCIÉTÉ CANADIENNE DES ANESTHÉSIOLOGISTES

SCIENCE • VIGILANCE • COMPASSION

WWW.CAS.CA

NEW CAS SECTION: HOSPITAL CHIEFS OF ANESTHESIA

The first official meeting of the new Hospital Chiefs of Anesthesia (HCA) Section took place on June 22 at the CAS Annual Meeting in Calgary. Led by Dr Susan O'Leary, Dr Pascal Labrecque, and Dr Colin McCartney, the meeting brought together Anesthesia Chiefs from across Canada to discuss many pressing issues confronting the leadership in our departments. As our national specialty society, CAS seeks to support our anesthesia leaders and to provide an opportunity for this unique group to network and share best practices. The chiefs identified several key areas in which the members of the CAS Hospital Chiefs of Anesthesia Section could benefit:

- Creating an accessible online resource hub for Canadian Chiefs, including a forum for free discussion and exchange of resources or information
- Creating templates to help comprehend department structure and governance within hospitals
- Defining a general job description outlining the key duties and responsibilities of a Chief
- Outlining employment negotiation, strategies for Chiefs and other anesthesia leaders
- Developing CAS Annual Meeting activities and workshops, including topics related to organizational leadership and effective staff management, and providing speakers to lead these sessions

A major takeaway from the meeting was a strong sense that Chiefs of Anesthesia in Canada have both challenging and rewarding jobs. They all share in their commitment, first to excellence in patient care and second, and equally importantly, a desire to ensure the health, well-being, happiness, and success of every anesthesiologist in their departments. With the national chief section being housed at CAS, the Chiefs of Anesthesia in Canada will have the resources and support to collaborate and build on our strengths and seek a way forward for future challenges.

The Chiefs of Anesthesia Section is growing, and it has now been officially ratified by the CAS Board of Directors. In the Fall of 2019, watch for the launch of the CAS membership renewal campaign and be sure to register. **YOU MUST BE A CAS MEMBER TO JOIN THE SECTION** and to access any Section materials or the Section blog on the website.

In the meantime, Chiefs are encouraged to join the HCA mailing list to receive updates. Upon receipt of your interest, as an example of the Section work to come, we will send you a newly created Chiefs' Job Description Template for your information and use. Please send your contact information to anesthesia@cas.ca, noting your interest.



Dr Colin McCartney



Dr Susan O'Leary



Dr Pascal Labrecque

2019 HONOUR AWARD WINNERS LAURÉATS DES PRIX DE DISTINCTION

SINCERE CONGRATULATIONS TO OUR 2019 AWARD WINNERS
NOS FÉLICITATIONS LES PLUS SINCÈRES À NOS LAURÉATS DES PRIX 2019



Gold Medal
Médaille d'or
Dr David Mazer
Toronto, ON



Clinical Teacher
Enseignement clinique
Dr Robert Chen
Ottawa, ON



Clinical Practitioner
Pratique clinique
Dr David Bell
Owen Sound, ON



John Bradley Young Educator
Jeune éducateur John-Bradley
Dr Jennifer Vergel de Dios
London, ON



John Bradley Young Educator
Jeune éducateur John-Bradley
Dr Sonia Sampson
St John's, NL



Emeritus Membership
Membre émérite
Dr Anthony Boulton
Vancouver, BC

2020 CALL FOR NOMINATIONS APPEL DE CANDIDATURES

Enhance the profession and spread inspiration by nominating an outstanding colleague for one of these prestigious awards—to join an exclusive group of previously recognized CAS members.

Visit the Awards and Grants tab on the CAS website at www.cas.ca for submission instructions and information.

The deadline for nominations is **October 15, 2019**.

Améliorez la profession et partagez l'inspiration en présentant la candidature d'un collègue remarquable à l'un de ces prestigieux prix—pour rejoindre un groupe exclusif de membres de la SCA récompensés précédemment.

Visitez la section "Subventions et bourses" sur le site de la SCA www.cas.ca pour toutes informations et instructions pertinentes à la soumission.

Date limite de soumission pour les candidatures est **le 15 octobre, 2019**.

INTRODUCING THE CURRENT AND INCOMING CAS COMMITTEE CHAIRS

CAS is pleased to introduce committee chairs for 2019–2020 (* indicates a new chair) and expresses its appreciation and gratitude to the following individuals for carrying out these important roles. Their commitment and the work of each committee contributes significantly towards the mission of CAS and its ability to deliver enhanced member services.

ANNUAL MEETING

Chair: Dr Adriaan Van Rensburg,
Toronto, ON

2019 Local Arrangements –

Halifax AM Chair:

Dr George Kanellakos, Halifax, NS*

Scientific Affairs (Annual Meeting

Sub-committee) **Chair:** Dr Tim

Turkstra, London, ON

ARCHIVES AND ARTIFACTS

Chair: Dr Daniel Chartrand, Montreal, QC

CAIRS (Canadian Anesthesia Incident Reporting System) **Chair:** Dr Kathryn Sparrow, St. John's, NL*

CAS CHOOSING WISELY CANADA

Chair: Dr Kyle Kirkham, Toronto, ON

COACT (Committee on Anesthesia Care Team) **Chair:** Dr Claire Middleton, Toronto, ON

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT

Chair: Dr Maysann Yee, Newmarket, ON*

CPD MODULES SUB-COMMITTEE

Chair: Dr Adriaan Van Rensburg,
Toronto, ON

ETHICS

Chair: Dr Cheryl Mack, Edmonton, AB*

FINANCE

Chair: Dr James Kim, Vancouver, BC

MEDICAL ECONOMICS/PHYSICIAN RESOURCES

Co-Chair: Dr Jean-François Courval,
Dorval, QC

Co-Chair: Dr Eric Goldszmidt, Toronto, ON

PATIENT SAFETY

Chair: Dr Lucie Filteau, Ottawa, ON

RESEARCH ADVISORY

Chair: Dr Gregory Bryson, Ottawa, ON

STANDARDS

Chair: Dr Gregory Dobson, Halifax, NS

CAS Liaison: standards@cas.ca

IN MEMORIAM



Dr Brian Kavanagh (1962-2019)

Canadian anesthesia and critical care medicine lost a passionate and visionary leader when Brian Kavanagh, a colleague and friend, passed away on 15 June 2019 at the age of 57. Brian was born and raised in Dublin, Ireland, where he graduated from University College Dublin in 1985, winning the Maginnis Gold Medal for Medicine at St Vincent's University Hospital. He obtained his Medical Membership of the Royal College of Physicians of Ireland in 1988. In 1989, Brian and his wife Hilary moved to Toronto, where he completed training in Anesthesiology at the University of Toronto, receiving his Fellowship of the Royal College of Physicians and

Surgeons of Canada in 1992. Following residency training in Toronto, where his first daughter Dáire was born, Brian and his family then moved to Stanford University for clinical and research fellowship training in critical care. While there, he published several important papers on the biology and mechanisms of action of nitric oxide in the injured lung. He also obtained Board Certification from the American Board of Anesthesiology in both anesthesia and Critical Care Medicine.

Following the birth of Aifric, his second daughter, Brian returned to Toronto in 1994, taking up a position as staff anesthesiologist and intensivist at the Toronto General Hospital, where he established his research laboratory. In 1999, Brian was recruited to the Department of Critical Care Medicine at the Hospital for Sick Children, and was named to the Doctor Geoffrey Barker Chair in Critical Care Medicine in 2003. He was promoted to full Professor in the Departments of Anesthesia, Medicine, and Physiology at the University of Toronto in 2005, and became a Senior Scientist in the Program of Physiology & Experimental Medicine at the Research Institute of the Hospital for Sick Children in 2009.

Brian was appointed the Chair of the Department of Anesthesia at the University of Toronto in 2006, and served two highly successful terms until 2017. During his time as Chair, Brian introduced several highly innovative initiatives. He was most proud of a program to identify and support clinician scientists that has produced world-class early career researchers. In partnership with hospital chiefs, he created seven endowed-chair positions to support research in perpetuity. He initiated the merit awards grants system for faculty members that recognizes excellence in research and teaching and has been adopted as a model for other Departments within the Faculty. Brian was a transformative Chair and under his leadership the Department's academic productivity thrived such that it became the second-ranked Department in North America.

Brian was an exemplary clinician-scientist. He was adored by his patients and their families, and he was a brilliant, highly productive researcher whose work has benefitted countless patients and will continue to do so well into the future. He not only knew how to ask the right questions, but he also knew how to set about answering them. He hypothesized and then proved that hypercapnia could attenuate acute lung injury and then identified the key mechanisms of injury. His lab provided the first demonstration of gene activation caused by ventilator-induced lung injury and then identified which genes were involved, how they exerted their pathogenic effects, and why they might be attractive therapeutic targets. He also demonstrated that negative pressure ventilation may lessen lung injury, that lung injury can translocate bacterial products from the alveolus to the bloodstream, and that soluble mediators generated in the lung can cause or worsen injury. In all, Brian co-authored nearly 200 peer-reviewed research papers, many in the highest impact journals such as NEJM, Lancet, and BMJ. His laboratory was extremely successful in attracting peer-reviewed funding from grant agencies such as the Canadian Institutes for Health Research.

Brian was elected a fellow of the Canadian Academy of Health Sciences in May 2012, an uncommon achievement in our field. He was the chair of Critical Care Canada Forum and was an Editor for Anesthesiology and an Associate Editor for Critical Care. Most recently, Brian was awarded

...continued on page 12



...continued from page 11

(and was rightly proud) of a highly prestigious Tier 1 Canada Research Chair, which is bestowed upon outstanding researchers acknowledged by their peers as world leaders in their fields. He was the first anesthesiologist to be so honoured.

Brian was a gifted educator and bedside teacher. He embodied the concept, attributed to WB Yeats, one of his favourite writers, that 'Education is not the filling of a pail, but rather the lighting of a fire.'

Brian was a committed and insightful mentor, a role he truly enjoyed and found extremely rewarding. He mentored a generation of anesthesia and critical care residents, fellows, and colleagues, many of whom have gone on to academic and clinical leadership roles across the globe. Even in the final stages of his illness, Brian frequently talked late into the night with the ICU fellows, critiquing their research and offering career advice. Brian was a key opinion leader in the field, having delivered over 175 talks at major international conferences across more than 30 countries worldwide. His insightful analyses frequently challenged 'group think', he questioned assumptions underlying evidence-based medicine and grading, and he provided unique perspectives on important research questions. Brian considered it an honour but also a significant responsibility to be a clinician scientist, and challenged all those around him to do the best science possible and to advance patient care.

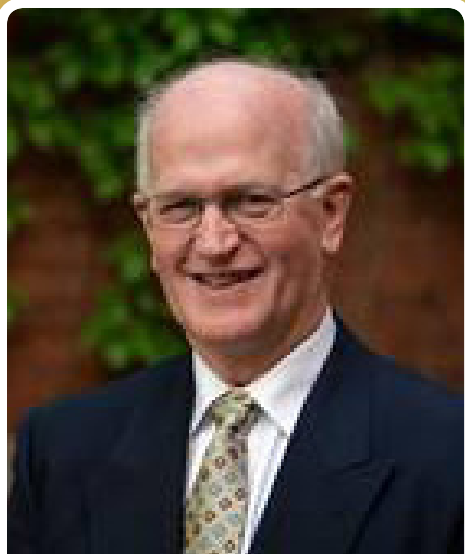
Brian was a proud Canadian, but remained an Irishman at heart, and returned to his beloved Dublin at every opportunity. An accomplished musician and a poet, Brian was at his happiest playing the uilleann pipes at a traditional Irish music session, whether in Toronto, in Dublin, or any other corner of the globe. A proud and loving father to Dáire and Aifric, he immensely valued family time, and it was a source of great pride for him to see his daughters as young adults.

Brian will be deeply missed by all whose lives he touched. He was a truly remarkable clinician, scientist, educator, mentor, and friend. He was taken from us far too soon. We extend our sincere sympathies to his daughters, Dáire and Aifric Kavanagh; his partner, Briseida Mema and previous partners, Hilary Roche and Hannah Wunsch, and to his extended family.

John Laffey

Keyvan Karkouti

IN MEMORIAM



Dr David Skene (1934-2019)

Past President: *Canadian Anaesthetists' Society* (1987–1988)

The Society mourns the loss of a dear colleague and friend, Dr. David Sydney Skene. David was a natural leader, a superb clinician, an outstanding teacher with remarkable insight and a wonderful sense of humor, and a consummate professional who led by inspiring others.

David graduated from Queen's University Medical School in 1963. While there, he was a high-performing athlete, able to balance his medical training with being concurrently captain of both the Queen's varsity football and hockey teams (Golden Gaels). He was proud captain of the

football team when the Gaels won the Yates Cup in 1961, and he was a league all-star in 1969 and 1970. Amongst his numerous athletic awards, David was inducted into the Queen's Football Hall of Fame in 1991. He remained a fervent Gaels fan and supporter for the rest of his life. *Cha Gheill!*

David went on to practise family medicine in Thunder Bay prior to his return to Kingston to undertake residency training in anesthesiology, which he completed at Columbia Presbyterian Medical Centre in New York. Following a research fellowship at Columbia, David was actively recruited to the University of Ottawa in 1971, where he pursued a remarkable career at the Ottawa General Hospital, which later merged to become part of The Ottawa Hospital. Throughout his career David was passionate about anesthesiology at the local, provincial, and national levels, supporting research and academics, and medical education. He was a wonderful teacher and mentor, and he rose through the academic ranks to Associate Professor. David served as Head of the Department of Anesthesia, and later as Chief of Staff, at the Ottawa General Hospital. He is a former Chair of the Anesthesia Section of the Ontario Medical Association (now, Ontario's Anesthesiologists).

At the national level, David had a long and distinguished track record of service to our national specialty society. He served on most of the CAS standing committees, and advanced from Vice-President to President of the Canadian Anaesthetist's Society (as it was named at the time) for 1987–88. This was a key period in the Society's commitment to scientific discovery and expansion of its national

research awards program. It was also an important period of collaboration of the Society with the Canadian Medical Association, the Association of Canadian University Departments of Anesthesia, and other bodies that laid the groundwork for the current training requirements in family practice anesthesia in Canada.

David lived the final year of his life managing end stage of cancer with remarkably good humor and with the courage, faith, and discipline he had shown throughout his professional and personal life. David passed away peacefully on July 20, 2019, supported by the love and care of his family and friends. He leaves his wife of 56 years, Joan (Carr-Harris) and his children John-David, Jeffrey and his wife Michelle, and Allison and her husband David. He also leaves his treasured grandchildren Benjamin, Abigail, and Maxwell Skene, and Anson and Evelyn Adshade.

In David's memory, a memorial bench will be installed on the campus grounds near the Medical School at Queen's University in Kingston.

Farewell, dear friend. Your fine legacy endures.

Donald R Miller, Colin J McCartney
Ottawa

IN MEMORIAM



Dr Charles Brian Warriner (1946-2019)

Brian Warriner graduated from medicine at UBC in 1971 and initially did general practice in Powell River, BC and Campbellton, NB before completing his anesthesiology residency at UBC in 1980. As a research fellow at the St Paul's Hospital Pulmonary Research lab before becoming a staff anesthesiologist at St Paul's Hospital in Vancouver, Brian had interests in several areas, including a trial involving a non-cellular oxygen carrier in cardiac surgery. He was an excellent teacher of anesthesia residents, medical students, pharmacology students, and operating room nurses and was an invited speaker at many conferences nationally and internationally.

He was well regarded as a member of the RCPSC exam board in anesthesiology. Brian was highly supportive to a generation of final year UBC anesthesiology residents preparing for RCPSC certification exams.

Brian contributed extensively in administration: hospital Department Head; Chair of the Medical Advisory Committee; Vice President, Medical Affairs; and acting President and CEO of Providence Health Care. In 2002, he became Professor and Head of the UBC Department of Anesthesiology, Pharmacology, and Therapeutics. As a leader, he was instrumental in starting the first acute pain service in Western Canada and in bringing anesthesia assistants to St Paul's Hospital. He also provided groundwork for development of Pain BC, a non-profit organization for patients with chronic pain. Brian led the University Department to develop the annual Whistler Anesthesiology Summit conference. As a member of the College of Physicians and Surgeons of BC Committee for Non-hospital Medical/Surgical Facilities, he improved the regulations for and inspections of private surgical clinics. He reviewed other departments and, for Accreditation Canada, surveyed many hospitals nationally. He also surveyed several hospitals internationally. For several years, Brian made annual visits to Kampala, Uganda to teach anesthesiology and considerably strengthened the anesthesiology residency program at Makerere University. With his support and funding, several Ugandan anesthesiology trainees came to train at UBC.

In 2009, Brian was awarded the prestigious CAS Clinical Practitioner Award in recognition of excellence in clinical anesthesiology and for making significant contributions to the practice of clinical anesthesiology in Canada. He retired from clinical practice in 2016.

For many years, Brian was a leader with the Cub Scouts and Boy Scouts, taking his charges on memorable camping expeditions.

Brian was diagnosed with pancreatic cancer and passed away peacefully at home.

Brian will be remembered for taking the time to listen to medical students, residents, and colleagues with difficulties and for providing invaluable and timely support.

A memorial fund in Brian's name has been organized through the St Paul's Foundation, supporting Brian's legacy of teaching anesthesiology in Uganda:

donate.helpstpauls.com/dr-warriner

Randy Moore

Clinton Wong



CARF SHARES GOOD NEWS

CARF is thrilled to report on the following exciting initiatives that occurred over the course of the 2019 Annual Meeting in Calgary.

On Friday, June 21, CARF hosted the successful "CARF @ CRAFT" at a local brewery with over 200 guests in attendance. This event, which was combined with the residents' social, was the kick-off to CARF's ambitious four-year campaign called 'CHANGE 4 CARF'. This campaign was created to fully support the Career Scientist Award, which is now awarded every year. Guests enjoyed an evening of delicious food, locally brewed beer, silent auction bidding, and a chance to mix and mingle with residents, CARF Trustees, exhibitors, and other delegates.

Due to the success of this event and the enthusiastic response from members regarding the campaign, CARF is proud to report that over \$70,000 has now been pledged towards "CHANGE 4 CARF"! Thank you to everyone who has helped spread

the word about this important campaign and for generously donating. If you are willing to contribute to the campaign to ensure future anesthesia research, please visit www.cas.ca/en/about-cas/foundations/carf/donate.

Your generosity is sincerely appreciated!

CARF is also happy to report that this year over 25 registered for the "Fun Run for CARF", which took place on Sunday, June 23. The scenic route along the Bow River Pathway was thoroughly enjoyed by the runners, and \$1,250 was raised. CARF would like to thank Michael Cassidy for his impeccable organization of the Fun Run and securing volunteers.

We're already looking forward to 2020!

RECOGNIZING AND VALUING DIVERSITY IN OUR WORK AND PROFESSION

Over the past year, the CAS Diversity, Equity & Inclusion Working Group, chaired by Vice-President Dr Dolores McKeen, worked with ACUDA to develop a Joint Statement on Diversity and Inclusion. The statement acknowledges that both organizations recognize and value diversity in all aspects of our work and the profession. Diversity is a source of strength that can only be fully realized through equitable and inclusive involvement of all. The statement promotes that every person has the right to be accepted and treated with respect and dignity. It is expected that all Society and ACUDA Board and committee members, staff, Society members, and volunteers will model, promote, and comply with these principles.



Delegates at CAS 2019 taking a break

CAS and ACUDA Joint Statement on Diversity and Inclusion

The Canadian Anesthesiologists' Society (CAS) and the Association of Canadian University Departments of Anesthesia (ACUDA) recognizes and values diversity in our members and staff, our learners, our patients, and the society in which we work. Diversity as a source of strength can only be fully realized through equitable and inclusive involvement of all.

Diversity has many aspects including sex and gender identity; sexual orientation; race, colour, ethnicity, or national origin; marital or family status; age; religion; culture; disability, both mental and physical; and socioeconomic status.

We hold that every person has the right to be accepted and treated with respect and dignity.

The CAS and ACUDA will:

- Promote acceptance and inclusion of all individuals through equitable opportunity for participation and leadership, especially those from groups that have historically experienced employment and workplace discrimination: women, visible minorities, and those identifying as LGBTQ+. The CAS and ACUDA will pursue programs and policies to improve participation of underrepresented and marginalized groups.
- Encourage all anesthesiologists to build working environments based on respect and free of discrimination and harassment. An atmosphere of collegiality, dignity, and respect will apply in all CAS and ACUDA activities.
- Seek to reflect the diversity of Canada and in our leadership and committees.
- Provide CAS and ACUDA member services equitably to our diverse membership.
- Work to promote equitable access to anesthesia care in Canada.

The CAS expects that all Board and committee members, staff, members, and volunteers will model, promote, and comply with these principles.

ACUDA expects that all its members will model, promote, and comply with these principles and will ensure there is sufficient education provided in anesthesia residency training programs on the principles of diversity and inclusion in professional practice.



SPOTLIGHT ON THE CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT (CEPD) COMMITTEE....

Did you know that CAS can accredit your organization's CPD activities?

As an accredited CPD provider of the Royal College of Physicians and Surgeons of Canada, CAS can review and accredit Section 1 and Section 3 (Self-Assessment Program & Simulation) activities and can engage in co-development projects with non-physician organizations. The CEPD team—comprised of the CEPD Committee, education consultant, and office staff—can also provide you with assistance in organizing and accrediting your meeting through the CAS. The turnaround time on applications is typically less than 30 days, and special discounts can be found for organizing committees where more than half of the individuals are CAS members.

How to apply for Section 1 and Section 3 accreditation

Accreditation applications should be submitted to the CAS office at accredit@cas.ca as early as possible. We recommend that you submit at least six weeks before the activity date to avoid late fees or the possibility of CAS declining to review. The submission should include the application form and all the required attachments, and you must follow all relevant CAS accreditation processes, guidelines, and policies; the National Standard for Support of Accredited CPD Activities; and the Canadian Medical Association "Guidelines for Physicians in Interactions with Industry". Please allow for extra time as early as possible in the development phase to familiarize yourself with the accreditation process and the relevant guidelines and standards.

Along with reviewing and processing accreditation applications for Section 1 and Section 3 activities, the CEPD Committee is also responsible for advising the Board on all matters regarding Maintenance of Certification and continuing professional development of members in anesthesia and related fields. The Committee also evaluates and advises the Board on the incorporation of best practices in continuing medical education as it relates to educational activities offered by the CAS.

To find all the information you need to have your activities accredited, please visit:

<https://www.cas.ca/en/education/accreditation>, or contact Cristina Mita, CAS Manager, Education & Policy at cmita@cas.ca.



2019 FIRST PLACE CAS STUDENT ESSAY

Dr Yvgeniy Oparin, McMaster University

THE THAI CAVE RESCUE – HOW ANESTHESIOLOGY MADE THE IMPOSSIBLE POSSIBLE (AND LESSONS FOR THE OPERATING ROOM)

Last summer, the entire world watched as twelve boys aged 11 to 17 and their assistant coach became trapped in the depths of Tham Luang Nang Non cave in Thailand.¹ Monsoon rains trapped the boys and their coach four kilometres from the cave entrance. Flooded cave tunnels, strong currents, and areas with zero visibility meant the journey to reach the boys and back could take up to 11 hours, even for experienced scuba divers.² With water levels rising, more monsoon rain to come, and oxygen levels in the cave dropping, the rescue mission had to act quickly.

Although thousands of rescue personnel were involved, anaesthesiologist and cave diving specialist Dr. Richard Harris played a pivotal role in making the rescue a success. It involved sedating the boys with alprazolam (Xanax) and ketamine, after which divers carried them through the flooded cave for hours.³ Scuba diving while carrying sedated pediatric patients through underwater cave tunnels and without any clinical monitoring is not exactly a typical day in anesthesia. However, by dissecting the approach taken by Dr. Harris and the rescue team, we can learn valuable skills applicable to the practice of anesthesia.

On June 23rd, the Wild Boars soccer team and their assistant coach set out to go cave exploring after practice. The boys entered the cave, but heavy monsoon rains set in soon after. Rain quickly flooded the cave tunnels and blocked the entrance, forcing the boys deeper and deeper into the cave system to avoid the rising water.⁴ Worried parents soon got hold of the police, and when abandoned soccer gear was found at the cave opening, a rescue search was initiated immediately. Despite best efforts by divers, the boys would only be found on July 2nd – nine days after they ventured into the

cave.⁵ They were marooned on a rocky shelf four kilometres from the entrance, hungry and huddling for warmth, but otherwise unscathed. However, the boys still had to be rescued through the narrow cave tunnels, which were now completely flooded. As monsoon rain poured down, water levels around the boys continued to rise and the oxygen concentration in the cave air dropped to as low as 15%.¹ The rescuers had to act carefully, but quickly.

Just as in anesthesia, every possible plan was considered. Attempts to drill through the cave from the surface were unsuccessful.⁶ Engineers built pumps to drain water from the cave. Over 1 billion litres were pumped over the course of the operation, but water levels continued to rise.⁷ The rescuers even attempted to teach the boys basic diving skills. However, they were already weak from having been deprived of food and water, and the risk of the boys panicking mid-dive was too high.⁶ This meant that the only option left was to carry them underwater through the flooded cave tunnels. Additionally, the high risk of the boys panicking mid-dive meant that they would have to be carried through the cave while under sedation.³

Anesthesiologists often think like this in the operating room. Even for routine surgeries, there is always a plan A, plan B, plan C...all the way to plan Z. Although most of the time, plan A goes well, anesthesiologists are always thinking about and ready to act in case the airway is difficult, major blood loss occurs, or a patient develops malignant hyperthermia – to name just a few. In Dr. Harris' case, his plan Z had become a reality; diving for the boys and extracting them from the cave under sedation was the only option left.

...continued on page 19

...continued from page 18

The plan to sedate the boys was complex. There are no guidelines on how to administer sedation to pediatric patients in the confines of a dark flooded cave with no monitors, while carrying them for several hours through a cave that is barely wider than the width of a person at times. Similarly, there is no one-size-fits-all manual on how to anesthetize patients in the operating room. Each patient comes with their unique physiology, comorbidities, and planned procedure. Anesthesiologists have to decide what anesthetic plan would be best suited for each particular patient and the procedure they are getting done. In this particular situation, Dr. Harris opted for initial anxiolysis with 0.5mg oral alprazolam (Xanax). The boys were then administered an injection of intramuscular ketamine 5mg/kg to induce sedation, while simultaneously preserving respiratory drive.⁸ Since the duration of action of IM ketamine is only 0.5-2 hours, extra top-up doses of 2.5mg/kg were required en-route. To counteract hypersalivation from the ketamine, the boys were also given IM atropine. They were equipped with full face mask providing 80% oxygen with positive end-expiratory pressure (PEEP).⁸ The journey had to be made with utmost care to ensure that the masks did not bump against the cave and cause a mask leak. Since the boys were sedated, a mask leak would likely go undetected and be fatal.³ This was an extremely risky plan. So risky in fact, that Dr. Harris and two medical assistants were granted diplomatic immunity by the Thai government in case something went wrong.⁹

Even once the plan was in motion, unexpected events occurred that needed to be addressed on the fly. According to reports from Dr. Harris, one of the boys was over-sedated and began breath holding after being administered the initial ketamine dose.¹⁰ He had to wait 30 minutes in the sand while holding the boy's airway and waiting for him to recover. He eventually did, but unexpectedly required an extra ketamine dose 200 metres later.¹⁰ For some reason, this boy reacted quite sensitively to the ketamine at first, but later tolerated it more than expected. This troubleshooting is something anesthesiologists do on a regular basis – titrating medications on-the-go, watching for unexpected adverse reactions like hypotension or arrhythmias, and even putting surgeries on hold altogether to resuscitate.

However, Dr. Harris was not solely responsible for the success of the rescue. By some estimates, over 10,000 personnel were involved. Over 100 divers from around the world participated in the rescue effort.¹¹ Saman Kunan, a 37 year-old former Thai Navy SEAL unfortunately lost consciousness and died while diving to deliver air tanks.¹² 2000 soldiers, 900 police officers, representatives from over 100 government agencies, multiple police helicopters, and ambulances were also involved. Even the anesthetic was not the sole responsibility of Dr. Harris; he reports consulting with local specialists in Thailand and from back home in Australia.¹³

This is akin to how anesthesiologists work in the operating room, although on a much larger scale. Anesthesiologists collaborate with surgeons intraoperatively, communicating at all times to ensure the patient is safe. They also work with dozens of other staff, including nurses, anesthesia assistants, and perfusionists. They work together with physicians across all disciplines to optimize patients medically before their surgery and to provide optimal recovery. They will also frequently consult other anesthesiologists to discuss ideas for difficult procedures, just as Dr. Harris did with his anesthetic plan.

In the end, the rescue was incredibly successful. All 12 boys and their coach were rescued from the cave alive, which would not have been possible without precise and efficient cooperation of all personnel involved.¹⁰ However, at the centre of it was cave diving specialist and anesthesiologist Dr. Richard Harris. Without his anesthetic expertise, resourceful problem solving, and ability to work under pressure, this rescue would have not been possible. Although the monsoon-flooded caves of Thailand are a far cry from the operating room, we can learn from Dr. Harris' success and apply it to the practice of anesthesiology. Always have a backup, double backup, and triple backup plan. Cater towards each situation's unique set of circumstances and be ready to troubleshoot. Finally, communicate and work collaboratively with your fellow staff your common goal—patient safety. Follow these lessons, and you might just make the impossible possible.

yvgeniy.oparin@medportal.ca

References:

1. Cheung H, Wong T. The full story of Thailand's extraordinary cave rescue. BBC News 2018. <https://www.bbc.com/news/world-asia-44791998> (accessed February 15, 2019).
2. Thailand cave rescue: Boys 'can walk but can't dive yet'. BBC News 2018. <https://www.bbc.com/news/world-asia-44747049> (accessed February 15, 2019).
3. Cochrane L. The Cave. Sydney, N.S.W.: ABC Books; 2018.
4. Said-Moorhouse L. Thai cave rescue: Soccer team found alive one kilometer underground. CNN 2018. <https://edition.cnn.com/2018/07/02/asia/thai-cave-rescue-intl/index.html> (accessed February 15, 2019).
5. Thai cave rescue: Diver describes finding boys alive. BBC News 2018. <https://www.bbc.com/news/av/uk-44822286/thai-cave-rescue-diver-describes-finding-boys-alive> (accessed February 15, 2019).
6. Viswanathan R, Barclay E. The 4 risky options to rescue the Thai boys trapped in a cave, explained. Voxcom 2018. <https://www.vox.com/2018/7/7/17541602/thai-cave-rescue-boys-options-diving> (accessed February 15, 2019).
7. Dvorak P, Watts JM. The Thai Cave Rescue, Before Its Triumph, Teetered on the Brink of Disaster. The Wall Street Journal 2018. <https://www.wsj.com/articles/the-thai-cave-rescue-before-its-triumph-teetered-on-the-brink-of-disaster-1531346977> (accessed February 15, 2019).
8. Harris R. Extraordinary Cave Rescue and Retrievals. SWAN 2018 - Trauma, Critical Care, and Emergency Surgery Conference. Sourced from Twitter.
9. Thepgumpanat P. Thailand gave diplomatic immunity to Australian medical team in... Reuters 2018. <https://www.reuters.com/article/us-thailand-accident-cave-australia/thailand-gave-diplomatic-immunity-to-australian-medical-team-in-cave-rescue-idUSKBN1K60FC> (accessed February 15, 2019).
10. Massola J. 'We didn't expect all 13 out alive': Inside the Thai cave rescue. The Sydney Morning Herald 2018. <https://www.smh.com.au/world/asia/we-didn-t-expect-all-13-out-alive-inside-the-thai-cave-rescue-20181106-p50e84.html> (accessed February 15, 2019).
11. Beech H, Paddock RC, Suhartono M. 'Still Can't Believe It Worked': The Story of the Thailand Cave Rescue. The New York Times 2018. <https://www.nytimes.com/2018/07/12/world/asia/thailand-cave-rescue-seals.html> (accessed February 15, 2019).
12. Dvorak P, Watts JM. Retired SEAL member dies in Tham Luang rescue operation. Thai PBS 2018. <http://englishnews.thaipbs.or.th/retired-seal-member-dies-tham-luang-rescue-operation/> (accessed February 15, 2019).
13. McGuirk R. 9 Australians awarded bravery medals for Thai cave rescue. CTVNews 2018. <https://www.ctvnews.ca/world/9-australians-awarded-bravery-medals-for-thai-cave-rescue-1.4025307> (accessed February 15, 2019).



THE SELF ASSESSMENT PROGRAM FROM THE *CANADIAN JOURNAL OF ANESTHESIA* - CPD ONLINE

CPD Module:

Synopsis of the point-of-care ultrasound assessment for perioperative emergencies - April 2019

Also Available:

- Updated guide for the management of malignant hyperthermia - June 2018
- Anesthetic implications of recreational drug use - December 2017
- Massive hemorrhage and transfusion in the operating room - September 2017
- Managing the Perioperative Patient on Direct Oral Anticoagulants - June 2017
- The impaired anesthesiologist: What you should know about substance abuse - February 2017

How to Access the Modules:

Instructions can be found on the Canadian Anesthesiologists' Society website at:

www.cas.ca/cpd-online

Successful completion of each module of the self-assessment program will entitle readers to claim four hours of continuing professional development (CPD) under section 3 of CPD options, for a total of 12 maintenance of certification credits. Section 3 hours are not limited to a maximum number of credits per five-year period.

Publication of these modules is made possible through unrestricted education grants from the following industry partner:





Daniel Bainbridge
CAS President



CANADIAN ANESTHESIOLOGISTS' SOCIETY

Anesthesia News is published by the Canadian Anesthesiologists' Society (CAS).

CAS welcomes comments and suggestions from readers.

Materials published in Anesthesia News may be reprinted without permission if credit is given.

Publisher:

Canadian Anesthesiologists' Society
1 Eglinton Avenue East, Suite 208
Toronto, ON, Canada M4P 3A1

Editor-in-Chief:

Dr David McKnight

Managing Editor:

Andrea Szametz

Email: anesthesia@cas.ca

Fax: 416-480-0320

Phone: 416-480-0602

www.cas.ca