

# 2019 Annual Scientific Meeting

## Neurosurgical Society of Australasia



# Provisional Program

**21 – 23 August 2019**

**Melbourne Convention Centre**



# NEUROSURGICAL SOCIETY OF AUSTRALASIA

75<sup>th</sup> Annual Scientific Meeting

Melbourne Convention and Exhibition Centre, Melbourne, Victoria

Wednesday, 21 August to Friday, 23 August 2019

## Welcome to the 75<sup>th</sup> Annual Scientific Meeting

On behalf of the Neurosurgical Society of Australasia, it is our pleasure to invite you to attend the 75<sup>th</sup> Annual Scientific Meeting of the Neurosurgical Society of Australasia, to be held at the Melbourne Convention Centre, Melbourne, Victoria from Wednesday, 21 August to Friday, 23 August 2019.

The Annual Scientific Meeting is a forum to promote the exchange of scientific ideas and knowledge, and to strengthen relationships with colleagues. We are delighted to welcome international guest speakers including Cleopatra Charalampaki (Neurosurgeon, Germany), Rees Cosgrove (Neurosurgeon, USA), Michael Fehlings (Neurosurgeon, Canada), Professor Wouter Schievink (Neurosurgeon, USA) and Jin Woo Chang (Neurosurgeon, South Korea). They will be joined by local guest speakers including Malcolm Hogg (Anaesthesia and Pain Management, Melbourne), Matthew Foote (Radiation Oncologist, Brisbane) and the Eccles Lecturer, Pamela McCombe (Neurologist, Brisbane).

The program has been structured so there is an increased availability of space to accommodate member involvement, and we look forward to welcoming your contributions to the outstanding scientific program.

The venue is the Melbourne Convention and Exhibition Centre. With all of Melbourne's attractions at its doorstep, it is the perfect base for the Annual Scientific Meeting. Restaurants and shopping are easily accessible along Southbank and the central business district is a short stroll along the Yarra River or a free ride on the iconic trams.

We look forward to welcoming you to Melbourne and to your involvement in this exciting program.

With kind regards,



Sarah Olson  
President



Alison Wray  
Scientific Program Convenor

# Draft Program Overview

Wednesday, 21 August	Thursday, 22 August	Friday, 23 August
8.45am - 9.00am Opening Address	7.30am – 8.30am Tumour Masterclass Integra Sponsored Session	7.45am – 8.45am Strategies for Life as a Neurosurgeon
9.00am – 10.00am Recent and Emerging Trends in Spine Oncology	8.40am – 10.00am Neuro-Oncology	9.00am – 10.00am Spinal Surgery Complication Management and Avoidance
10.00am – 10.30am The Issue with Opioids Prescribing, Including for Post-Operative Pain Malcolm Hogg, Melbourne	10.00am – 10.30am Ablative Surgery for Psychiatric Disease Rees Cosgrove	10.00am – 10.30am Free Papers To be selected from the abstracts
10.30am – 11.00am Morning Tea	10.30am – 11.00am Morning Tea	10.30am – 11.00am Morning Tea
11.00am – 12.15pm Nightmare CSF Patients	11.00am – 12.15pm Improving Outcomes in Spinal Surgery	11.00am – 12.30pm Advances in Stereotactic and Functional Surgery
12.15pm – 12.45pm Sex Differences in Neurological Disease Pamela McCombe, Brisbane	12.15pm – 12.45pm Free Papers	
12.45pm – 1.45pm Lunch	12.45pm – 1.45pm Lunch	12.30pm – 1.30pm Lunch
1.45pm – 2.45pm Advances in Tumour Surgery	1.45pm – 3.00pm Cerebrovascular	1.30pm – 2.00pm Am I Legally Liable if my Registrar Makes a Mistake?
2.45pm – 3.45pm Imaging, Electrophysiology and Epilepsy Surgery: The Key to Success	3.00pm – 3.30pm Free Papers	2.00pm – 3.00pm Education and Training
3.45pm – 4.15pm Afternoon Tea	3.30pm – 4.00pm Afternoon Tea	3.00pm Finish of Meeting
4.15pm – 5.15pm The Evolution of a New Navigation Platform for Spine and Cranial LifeHealthcare Sponsored Session	4.00pm – 5.00pm Innovations in Spinal Technology Device Technologies Sponsored Session	3.00pm – 5.00pm Surgical Supervisors Meeting Meeting of the RACS surgical supervisors
5.15pm – 6.00pm Annual General Meeting Full and Senior Members	5.00pm – 6.00pm MBS Reviews and Billing Practices	
6.00pm – 7.30pm Welcome Reception in Exhibition	7.00pm – 10.30pm Members Dinner	
7.30pm – 10.30pm Evening Seminars		

# Draft Detailed Program

Please note this program is subject to change without notice

Wednesday, 21 August 2019

8.45am **Opening Address**  
NSA President, Dr Sarah Olson  
Scientific Program Convenor, Dr Alison Wray

9.00am **Recent and Emerging Trends in Spine Oncology**  
Chair: Augusto Gonzalvo (Melbourne)

Surgical management of metastatic spine: moving toward precision-based medicine (30 minutes)  
International Guest: Michael Fehlings (Neurosurgeon, Canada)

Stereotactic spine radiotherapy in the management of spinal malignancy (15 minutes)  
Matthew Foote (Radiation Oncologist, Brisbane)

New technologies (materials and implants) (15 minutes)  
Andrew Hunn (Neurosurgeon, Hobart)

10.00am **Keynote Presentation**  
**The Issue with Opioids Prescribing, Including for Post-Operative Pain**  
Associate Professor Malcolm Hogg (Anaesthesia and Pain Management, Melbourne)

The role of opioid analgesia for pain management is under scrutiny following escalation of prescribing and community harms, both here and, most notably, in the USA. An approach to the assessment and multi-modal management of pain, including opioid use in the post-operative setting will be presented. Surgical services have a role in providing appropriate patient education, pain prescribing and ongoing surveillance, for both poorly controlled pain and inappropriate opioid use. The introduction of state and national prescription monitoring systems during 2019 will be discussed.

10.30am **Morning Tea**

11.00am **CSF Challenges**

Spontaneous intracranial hypotension (30 minutes)  
International Guest: Wouter Schievink (Neurosurgeon, USA)

ICP Telemonitoring: The World's First Setting of ICP Home-Monitoring (7 minutes plus 3 minutes questions)  
Michael Heckelmann (Neurosurgeon, Germany)- Abstract 83

The benefit of delayed reassessment post high-volume CSF removal in the diagnosis of shunt-responsive idiopathic normal-pressure hydrocephalus (7 minutes plus 3 minutes questions)

**Peter Leech Prize Finalist**  
Chrisovalantis Tsimiklis (Accredited Registrar) – Abstract 33

Challenging Case Presentation (20 minutes)

12.15pm **Eccles Lecture**  
**Sex Differences in Neurological Disease**  
Professor Pamela McCombe (Neurologist, Brisbane)

There is sexual dimorphism in the prevalence and severity of neurological disease. This can be seen in the autoimmune diseases such as multiple sclerosis, degenerative diseases such as motor neurone diseases, and brain injury including stroke and recovery from major surgery. The mechanisms for these differences will be discussed.

12.45pm **Lunch**

1.45pm **Advances in Tumour Surgery**  
Chair: Andrew Morokoff (Melbourne)

Intraoperative confocal-assisted multifuorescent surgery for CNS tumors (15 minutes)  
International Guest: Cleopatra Charalampaki (Neurosurgeon, Germany)

Neurocognitive and functional outcomes in patients with diffuse frontal lower-grade gliomas undergoing intraoperative awake brain mapping (7 minutes plus 3 minutes questions)  
Kazuya Motomura (Neurosurgeon, Japan) – Abstract 1

Big data in Cranial Neurosurgery: Experience, challenges, and lessons from UK (7 minutes plus 3 minutes questions)  
James Laban (Neurosurgeon) – Abstract 100

Supramaximal resection of glioblastoma: the early Calgary experience (7 minutes plus 3 minutes questions)  
James Dimou (Neurosurgeon) – Abstract 39

Sodium Fluorescein in Brain Tumour Surgery: Assessing relative fluorescence intensity at tumour margins (7 minutes plus 3 minutes questions)  
**Peter Leech Prize Finalist**  
Ragavan Manoharan (Accredited Registrar) - Abstract 72

2.45pm **Imaging, Electrophysiology and Epilepsy Surgery: The Key to Success**  
Chair: Michael Murphy (Melbourne)

Imaging and epilepsy surgery: the key to success (30 minutes)  
International Guest: Rees Cosgrove (Neurosurgeon, USA)

Electrophysiology and epilepsy surgery: the key to success (30 minutes)  
Mark Dexter (Neurosurgeon, Sydney)

3.45pm **Afternoon Tea**

4.15pm **The Evolution of a New Navigation Platform for Spine and Cranial**  
The development of the 7D surgical navigation system and an overview of its use within Australia and New Zealand  
Sponsored by LifeHealthcare

5.15pm **Annual General Meeting**  
Full and Senior Members Only

6.00pm **Welcome Reception**  
Drinks and canapes served in the Exhibition Hall

7.30pm **Evening Seminars**  
To be organised by sponsors and exhibitors

## Thursday, 22 August 2019

7.30am **Tumour Masterclass**  
Presentation and panel discussion of interesting and challenging Tumour cases, covering differing approaches and treatment modalities  
Sponsored by Integra

8.40am **Neuro-Oncology**  
Chair: Andrew Morokoff (Melbourne)

Multispectral imaging of 5-aminolevulin acid in brain tumor surgery (30 minutes)

International Guest: Cleopatra Charalampaki (Neurosurgeon, Germany)

Stereotactic radiosurgery in brain metastases: the changing landscape (15 minutes)

Matthew Foote (Radiation Oncologist, Brisbane)

BBB-MRgFUS enhanced Stupp protocol for GBM (15 minutes)

International Guest: Jin Woo Chang (Neurosurgeon, South Korea)

Impact of Pre-Therapy Glioblastoma Multiforme Microenvironment on Clinical Response to Autologous CMV-specific T cell therapy (7 minutes plus 3 minutes questions)

David Walker (Neurosurgeon, Brisbane) - Abstract 17

Gross total resection of cerebral melanoma metastasis is influenced by BRAF status and is associated with improved survival (7 minutes plus 3 minutes questions)

**Peter Leech Prize Finalist**

Michael Colditz (Accredited Registrar) - Abstract 46

10.00am **Keynote Presentation**  
**Ablative Surgery for Psychiatric Disease**  
Professor Rees Cosgrove (Neurosurgeon, USA)

10.30am **Morning Tea**

11.00am **Improving Outcomes in Spinal Surgery**  
Chair: Jonathon Ball (Sydney)

Experience with International Prospective Studies and Guidelines Development to Enhance Care for Degenerative Cervical Myelopathy and Spinal Cord Injury (30 minutes)

International Guest: Michael Fehlings (Neurosurgeon, Canada)

How I incorporate new technologies into my spine practice (15 minutes)

Matthew McDonald (Neurosurgeon, Adelaide)

SUcceSS, SUrgery for Spinal Stenosis: a randomised, placebo-controlled trial (10 minutes plus 5 minutes questions)

Gavin Davis (Neurosurgeon, Melbourne) – Abstract 14

Big data in Spinal Surgery: Experience, challenges, and lessons from UK (10 minutes plus 5 minutes questions)

James Laban (Neurosurgeon, Sydney) – Abstract 99

12.15pm **Free Paper 1**

The quantification of blood-brain barrier disruption in traumatic brain injury using serum levels of matrix metalloproteinases (MMP-1, 2, and 9) and the volume transfer constant K<sub>Trans</sub> (DCE-MRI) (Rapid fire presentation: 4 minutes plus 1 minute questions)

Paul Nichols (Accredited Registrar) - Abstract 56

More coming soon

12.45pm **Lunch**

1.15pm **Andrew Kaye Poster Prize (during lunch)**

Poster Finalists Presenting to the Judging Panel

1.45pm **Cerebrovascular**

Chair: Rodney Allan (Sydney)

Management of arterial dissections (30 minutes)

International Guest: Wouter Schievink (Neurosurgeon, USA)

Real time overlay of white light with Indocyanine green videoangiography for better intraoperative visualisation of vascular deformities (30 minutes)

International Guest: Cleopatra Charalampaki (Neurosurgeon, Germany)

Obliteration rate of frameless linear accelerator radiosurgery with 3D catheter angiographic planning for small arteriovenous malformations (5 minutes plus 2 minutes questions)

Benjamin Jonker (Neurosurgeon, Sydney) – Abstract 7

Clinical safety and efficacy of the novel self-expanding nitinol stent with mixed closed and open cell design (Neuroform Atlas) in a post-market analysis (5 minutes plus 2 minutes questions)

Carlos Chung (Consultant, Melbourne) – Abstract 9

3.00pm **Free Paper 2**

Anatomical localisation of the transverse-sigmoid sinus junction: comparison of existing techniques (Rapid fire presentation: 4 minutes plus 1 minute questions)

Samuel Hall (Accredited Registrar) – Abstract 8

More coming soon

3.30pm **Afternoon Tea**

4.00pm **Innovations in Spinal Technology**

An interactive session exploring the latest in material science, implant and instrument technologies

Sponsored by Device Technologies

5.00pm **MBS Reviews and Billing Practices**

Discussion session on the review of the MBS items and billing practices

7.00pm **Members Dinner**

River Room, Crown Towers

## Friday, 23 August 2019

### 7.45am **Strategies for Life as a Neurosurgeon**

Chair: Adrian Nowitzke (Brisbane)

Neurosurgery is one of a number of professions where the intensity, pace and gravity of the work can have important and negative consequences for the surgeon, their family and friendships. The guest speaker will share insights and provide practical strategies to enable neurosurgeons to grow and develop in their non-technical life.

### 9.00am **Spinal Surgery Complication Management and Avoidance: My Best and Worst Case**

Chair: Mitchell Hansen (Newcastle)

Lessons learned from managing complex cervical pathology (15 minutes)

International Guest: Michael Fehlings (Neurosurgeon, Canada)

Thoracolumbar case (15 minutes)

Greg Malham (Neurosurgeon, Melbourne)

Thoracolumbar case (15 minutes)

Justin Pik (Neurosurgeon, Canberra)

Cervico- thoracic cases (15 minutes)

Gordon Dandie (Neurosurgeon, Sydney)

### 10.00am **Spinal Free Papers**

Chair: Mitchell Hansen (Newcastle)

Central sensitization: can it persist indefinitely after the initiating pain generator has resolved? (7 minutes plus 3 minutes questions)

Graeme Brazenor (Neurosurgeon, Melbourne) – Abstract 18

Lateral lumbar interbody fusion: Early experience using expandable titanium cages with multimodal neurophysiological monitoring (Rapid fire presentation: 4 minutes plus 1 minute questions)

Greg Malham (Neurosurgeon, Melbourne) – Abstract 98

The utility of using record linkage data to measure surgical outcomes in traumatic spinal cord injury (Rapid fire presentation: 4 minutes plus 1 minute questions)

Lisa Sharwood (Trauma Clinician) – Abstract 95

MIS vs Open Pedicle Screw – A biomechanical study of pullout strength (Rapid fire presentation: 4 minutes plus 1 minute questions)

Phoebe Matthews (Accredited Registrar, Sydney) – Abstract 73

Factors Predictive of Neurological Recovery and Ambulatory Status in AO Type C Traumatic Thoracolumbar Spine Fractures: A Registry Cohort Study (Rapid Fire: 4 minutes plus 1 minute questions)

Terence Tan (Accredited Registrar, to be advised) – Abstract 103

### 10.30am **Morning Tea**

11.00am **Advances in Stereotactic and Functional Surgery**

Chair: Sarah Olson (Brisbane)

MRgFUS for movement disorders (30 minutes)

International Guest: Rees Cosgrove (Neurosurgeon, USA)

Ultrasound guided thalamotomy (10 minutes)

Benjamin Jonker (Neurosurgeon, Sydney)

Gamma knife thalamotomy (10 minutes)

Sarah Olson (Neurosurgeon, Brisbane)

Role of SEEG in lesional epilepsy (7 minutes plus 3 minutes questions)

Jason Papacostas (Neurosurgeon, Brisbane) – Abstract 97

Defining the Border of the Subthalamic Nucleus for Deep Brain Stimulation: A Proposed Model (Rapid fire presentation: 4 minutes plus 1 minute questions)

Anthony Chau (Accredited Registrar, Perth) – Abstract 63

Accuracy of electrode placement in the awake patient for deep brain stimulation in Parkinson's disease (Rapid fire presentation: 4 minutes plus 1 minute questions)

Patrick Pearce (Accredited Registrar, Brisbane) – Abstract 13

My worst case and what I learnt (7 minutes plus 3 minutes questions)

Christopher Lind (Neurosurgeon, Perth)

My worst case and what I learnt (7 minutes plus 3 minutes questions)

Terry Coyne (Neurosurgeon, Brisbane)

**12.30pm Lunch**

1.30pm **Am I Legally Liable if my Registrar Makes a Mistake?**

Chair: Mark Davies (Sydney)

Key aspects of supervision

2.00pm **Education and Training**

Chair: Mark Davies (Sydney)

Developments and future directions of the Surgical Education and Training Program

**3.00pm Finish of Meeting**

3.00pm **Surgical Supervisors Meeting3**

Meeting of the RACS surgical supervisors only

Finishing at 5pm

# Sponsors

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# Registration

Register now to take advantage of the early fee rates at [www.nsa.org.au](http://www.nsa.org.au)

Registration fees are quoted in Australian dollars and include GST. Registration fees include the delegate satchel, final program including abstracts, admission to all scientific sessions, morning and afternoon teas and lunches as scheduled. Registration also includes one ticket to the Welcome Reception. For early registrations your payment must be received prior to 1 July 2019. Registrations received from 2 July 2019 will be charged the standard fee.

Registration Rates	Early Fee (Ends 1 July 2019)	Standard Fee (From 2 July 2019)	Day Only Fee
NSA Full Members	\$950	\$1,150	\$575
NSA Senior Members	\$450	\$650	\$325
NSA Provisional Members	\$750	\$950	\$375
NSA Associate Members	\$750	\$950	\$375
<b>Medical Students</b> This rate is limited to full time students only. Proof of full-time student registration must be emailed to <a href="mailto:administration@nsa.org.au">administration@nsa.org.au</a> following your registration.	\$450	\$650	\$325
<b>Junior Doctors and Nurses</b> This rate is <b>not</b> available to SET Program trainees or those undertaking fellowship positions.	\$550	\$750	\$375
<b>Non-Member Medical Specialist</b> Non-member neurosurgeons, those undertaking fellowships in neurosurgery and specialists in related disciplines.	\$1,150	\$1,350	\$675
<b>Industry Representative Exhibiting Company</b> These are registrations in excess of registrations included as part of the exhibition package	\$1,150	\$1,350	\$675
<b>Industry Representative Non-Exhibiting Company</b>	\$1,850	\$2,050	\$1,025

# Social Program

## Welcome Reception

Wednesday, 21 August 2019  
6.00pm to 7.30pm  
Melbourne Exhibition and  
Convention Centre

Join us in the Industry Exhibition for a cocktail function to conclude the first day of Annual Scientific Meeting. Canapés and beverages included. One ticket is included in each delegate registration and accompanying partner tickets can be purchased at the time of registration. Tickets for accompanying partners are \$50. Register online at [www.nsa.org.au](http://www.nsa.org.au).

## Members Dinner

Thursday, 22 August 2019  
7.00pm to 10.30pm  
River Room, Crown Towers

Delegates are invited to attend the Members Dinner the River Room at Crown Towers. Members and guests will enjoy a buffet dinner with beverages whilst taking in wonderful views of Melbourne's famous Yarra River and city skyline. Dinner is open to delegates and their accompanying person only. Tickets are essential. Register online at [www.nsa.org.au](http://www.nsa.org.au). Members and their partners are \$140 per person and non-members and their partners are \$160 per person.

## Senior Members Dinner

Wednesday, 21 August 2019  
7.30pm to 10.00pm

A dinner will be held for senior members and their partners with the venue to be advised. Tickets are essential. Register online at [www.nsa.org.au](http://www.nsa.org.au). Members and their partners are \$100 per person.

# Accommodation

For accommodation bookings please visit our website at [www.nsa.org.au](http://www.nsa.org.au) or contact Ozaccomm toll free within Australia on 1800 814 611 or via email at [ozaccomm@ozaccomm.com.au](mailto:ozaccomm@ozaccomm.com.au)



### Pan Pacific Melbourne

2 Convention Centre Place, South Wharf  
2 minute walk to Convention Centre

Ideally located on South Wharf along the Yarra River, this luxury hotel is the perfect base to discover the vibrant city of Melbourne.

Deluxe King Room per night \$279

Premiere King City Skyline Room per night \$329



### Novotel Melbourne South Wharf

7 Convention Centre Place, South Wharf  
2 minute walk to Convention Centre

Directly connected to the Melbourne Convention and Exhibition Centre, this four star hotel is located on South Wharf Promenade.

Standard Queen Room per night \$325



### Crowne Plaza Melbourne

1-5 Spencer Street, Melbourne  
3 minute walk to Convention Centre

Ideally located on the Yarra River, steps away from the South Wharf restaurants and bars, CBD shopping, and South Melbourne with its popular cafes and markets.

Standard King Room per night \$250

# International Keynote Speakers



**Cleopatra Charalampaki**  
**Neurosurgeon**  
**Germany**

Speaking on real time overlay of white light with Indocyanine green videoangiography for better intraoperative visualisation of vascular deformities, multispectral imaging of 5-aminolevulin acid in brain tumor surgery and intraoperative confocal-assisted multifluorescent surgery for CNS tumors

Professor Cleopatra Charalampaki was born in Greece. She received the MD degree in medicine from the University of Cologne, Germany and the PhD degree from the Medical University Graz, Graz, Austria, in 1996 and 2008, respectively.

From 2000 to 2008 she was working in the Department of Neurosurgery in Medical University Mainz, Germany under the leadership of Professor Axel Perneczky. Her specialties are minimal invasive neurosurgery, brain endoscopy, skull base surgery via a transcranial and endonasal route, glioma surgery, hydrocephalus treatment, and spinal tumor surgery. From 2008 to 2012 she was consultant of neurosurgery in the Neurosurgical Department, Medical University Graz, in Austria. Since 2013 she has worked as a senior consultant in the Department of Neurosurgery, Cologne Medical Center, in Cologne, Germany. In 2014 she was appointed as a Professor of Neurosurgery at the University of Duesseldorf, Germany.

Her recent scientific activities are about the development of new techniques and technological associated strategies for minimal invasive neurosurgery, such as intraoperative use of confocal laser endomicroscopy, combined microscopic-spectroscopic usabilities for better differentiation between tumor and normal tissue, introduction of new fluorescent dyes in neurosurgery in combination with technological developments of new operating microscopes. In 2014 she received the Mahaley clinical research award from the AANS/CNS section on tumors sponsored by the National Brain Tumor Society in the United States for her advances in confocal laser endomicroscopy in surgery. She has authored and co-authored over 37 international journal papers in the field of neurosurgery and neuroscience and held over 180 lectures in international conferences.

Supported with a grant from [Leica Microsystems](#)





**Rees Cosgrove**  
**Neurosurgeon**  
**Boston, USA**

Speaking on imaging and epilepsy surgery: the key to success, ablative surgery for psychiatric disease and MRgFUS for movement disorders

G. Rees Cosgrove, MD, FRCSC received his neurosurgical training at the Montreal Neurological Institute and McGill University where he specialised in epilepsy and functional neurosurgery. He spent 13 years at the Massachusetts General Hospital as the head of Epilepsy and Functional Neurosurgery before becoming Chairman of the Department of Neurosurgery at Lahey Clinic and then the Stoll Professor and Chair of the Department of Neurosurgery at the Alpert Medical School of Brown University. He returned to the Brigham and Women's Hospital in Boston in 2015 as Chief of Epilepsy and Functional Neurosurgery to focus on his clinical activities, translational research and resident education.

He was named Director of the Neurosurgery Residency Training Program in 2016. As a leader in academic neurosurgery, he is a member of the executive committee of the World Society of Stereotactic and Functional Neurosurgery; past president of the American Society of Stereotactic and Functional Neurosurgery and an active member of the American Association of Neurosurgeons; the Congress of Neurological Surgeons; the American Academy of Neurological Surgery; and the Society of Neurological Surgeons.

Dr Cosgrove is the author of over 150 peer-reviewed publications, 185 abstracts and 61 book chapters. He has been an invited guest lecturer over 180 times and a visiting professor at 56 different academic institutions around the world. Dr Cosgrove has received a number of honours, including the Gold Medal in Surgery of Queen's University, the Wilder Penfield Award of the Montreal Neurological Institute, the Daniel D. Federman Outstanding Clinical Educator Award of Harvard Medical School, an Honorary BA from Brown University and an Honorary Litchfield Lectureship from Oxford University. He has been named as one of America's Top Doctors for the past 20 years and listed in the Global Directory of Who's Who and International Who's Who.

Supported with a grant from MediGroup





**Michael G. Fehlings**  
**Neurosurgeon**  
**Toronto, Canada**

Speaking on surgical management of metastatic spine: moving toward precision-based medicine, experience with International prospective studies and guidelines development to enhance care for degenerative cervical myelopathy and spinal cord Injury and lessons learned from managing complex cervical pathology

Dr Fehlings is the Vice Chair Research for the Department of Surgery at the University of Toronto and Head of the Spinal Program at Toronto Western Hospital, University Health Network. Dr Fehlings is a Professor of Neurosurgery at the University of Toronto, holds the Gerry and Tootsie Halbert Chair in Neural Repair and Regeneration, is a Scientist at the McEwen Centre for Regenerative Medicine and a McLaughlin Scholar in Molecular Medicine. In the fall of 2008, Dr Fehlings was appointed the inaugural Director of the University of Toronto Neuroscience Program (which he held until June 2012) and is currently Co-Director of the University of Toronto Spine Program.

Dr Fehlings combines an active clinical practice in complex spinal surgery with a translationally oriented research program focused on discovering novel treatments to improve functional outcomes following spinal cord injury (SCI). He has published over 850 peer-reviewed articles (hindex 88) chiefly in the area of central nervous system injury and complex spinal surgery. His seminal 1991 paper, cited over 1400 times, outlined the severe and lasting consequences of SCI due to a cascade of secondary injury mechanisms following the initial trauma. His research on secondary injury mechanisms ultimately led to the commencement of the multicenter, international Surgical Timing in Acute Spinal Cord Injury Study (STASCIS), aimed at establishing the need for early surgical decompression to prevent the negative effects of the secondary injury cascade. The results from this study, led by Dr Fehlings and published in 2012, demonstrated the critical importance of early surgical decompression (<24 hours) to improve functional and neurological outcomes, and reduce secondary complications in individuals with SCI.

His work examining the use of regenerative approaches including neural stem cells to repair the injured nervous system has led to numerous international awards and has helped lead the field toward clinical translation in this area. In 2017, the initiative to create Clinical Practice Guidelines for the management of degenerative cervical myelopathy and acute traumatic SCI – a multi-disciplinary international effort led by Dr Fehlings – was published in the *Global Spine Journal*. Most recently, Dr Fehlings' work demonstrating that mid-cervical excitatory interneurons are essential for the maintenance of breathing in non-traumatic cervical SCI and critical for promoting respiratory recovery after traumatic SCI was published in *Nature*.

Dr Michael Fehlings has received numerous prestigious awards. In 2012, Dr Fehlings served as the 40th President of the Cervical Spine Research Society (CSRS) – the only Canadian to do so – and was honoured with the CSRS Presidential Medallion for outstanding leadership and contributions to cervical spine research. In 2013, Dr Fehlings was honoured with the Queen Elizabeth II Diamond Jubilee Medal presented to him by the Honourable Stephen Harper, the H. Richard Winn Prize from the Society of Neurological Surgeons, the Jonas Salk Award for Scientific Achievements from the March of Dimes Canada and the Henry Farfan Award from the North American Spine Society. In 2014, Dr Fehlings was elected to the Fellowship of the Royal Society of Canada and to the Canadian Academy of Health Sciences, and in 2016 won the Royal College of Physicians and Surgeons Mentor of the Year Award.

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Wouter Schievink  
Neurosurgeon  
Los Angeles, USA

Speaking on spontaneous intracranial hypotension and the management of arterial dissections

Wouter Schievink earned his medical degree at the University of Amsterdam Medical School in 1989 and completed residency training at the Mayo Clinic in Rochester, Minnesota in 1997. This was followed by a cerebrovascular fellowship at the Barrow Neurologic Institute in Phoenix, Arizona. He was the Assistant Professor of Neurological Surgery in the Department of Neurological Surgery at the UCI Medical Center, Irvine, California from 1998 to 2000. He began academic practice in neurosurgery in 1997 at the Neurosurgical Institute at Cedars-Sinai Medical Center in Los Angeles, California, USA. There, he is the Director of the Microvascular Neurosurgery Program since 1998.

The research of Wouter I Schievink, MD, focuses on outcomes of complex cerebrovascular surgery, syndromes of spontaneous intracranial hypotension/spinal CSF leaks, as well as extracellular matrix proteins in intracranial aneurysms and cervicocephalic arterial dissections and models of intracranial aneurysms.

He has written and published extensively on cerebral aneurysms, cerebrovascular arterial dissections, and collagen vascular disease as related to the central nervous system. Dr Schievink is also an expert and well published author on Spontaneous Cerebrospinal Fluid Leak Syndrome. Dr Schievink was the lead physician on the first ever successful attempt of using fibrin glue to reverse a coma.

Supported with a grant from the Royal Australasian College of Surgeons





Jin Woo Chang, M.D.  
Neurosurgeon  
Seoul, Korea

Speaking on BBB-MRgFUS enhanced Stupp protocol for GBM

Dr Chang graduated from Yonsei University College of Medicine in 1983. He completed his neurosurgical residency and fellowship for stereotactic & functional neurosurgery at Severance Hospital, Yonsei University in Seoul, Korea. For two years he has served as an exchange professor at the University of Chicago, conducting basic research in movement disorders.

Dr Chang specializes in stereotactic & functional neurosurgery and his main interest is the neuromodulation of the central nervous system with new innovative techniques (electrical stimulation and focused ultrasound),

Currently D. Chang serves as a section editor of World Neurosurgery. He is also a member of the editorial board for the official journal of World Society for Stereotactic and Functional Neurosurgery (WSSFN) as well as the official journal of the International Neuromodulation Society (INS).

In addition to his various editorial duties, Dr Chang serves as vice-president of World Society for Stereotactic and Functional Neurosurgery (WSSFN).

Since 1993, Dr Chang has published more than 180 academic papers in SCI(E) journals around the world. He has been selected as the co-author of prominent neurosurgery textbooks more than 8 times, and he has authored countless domestic papers and textbooks. He has successfully completed 30 government research projects, and 5 projects which were commissioned by foreign research organizations and foundations. In addition to his regular position as a professor at Yonsei University, he has held a concurrent professorship position at the Korea Advanced Institute of Science and Technology (KAIST) Department of Bio and Brain Engineering.

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# Australasian Keynote Speakers



**Matthew Foote**  
**Radiation Oncologist**  
**Brisbane, Australia**

Speaking on stereotactic spine radiotherapy in the management of spinal malignancy and stereotactic radiosurgery in brain metastases: the changing landscape

Associate Professor Matthew Foote completed his specialist training in Brisbane in 2009. He then undertook further sub-specialist training in Gamma Knife® radiosurgery, stereotactic radiotherapy and neuro-oncology at the world-renowned Princess Margaret Hospital, Toronto.

Commencing at the Princess Alexandra Hospital in 2010 and Greenslopes Private Hospital in 2012, Associate Professor Foote has special interests in stereotactic brain and body radiotherapy, neuro-oncology, head and neck cancer and cutaneous (skin) cancer. He represents Australasia on the Elekta Oligometastasis Consortium and has been elected to the International Stereotactic Radiosurgery Society (ISRS). He was instrumental in establishing the Gamma Knife Centre of Queensland at the Princess Alexandra Hospital and is Co-Director of the unit.



**Pamela McCombe**  
**Neurologist and Eccles Lecturer**  
**Brisbane, Australia**

Presenting the Eccles Lecture on sex differences in neurological disease

The Eccles Lectureship in Neuroscience was established in 1992 to build relationships between the clinical and basic neuroscientists in Australia and New Zealand. The Eccles Lecturer presents at both the NSA Annual Scientific Meeting and the Australian Neuroscience Society Annual Scientific Meeting.

Professor McCombe is a graduate of the Medical School of the University of Queensland. She trained in Neurology at Prince Henry/Prince of Wales Hospital in Sydney, and then obtained a PhD from the University of Sydney. This was the start of her interest in Neuroimmunology. She is now a Neurologist at Royal Brisbane and Women's Hospital and Professor at the Faculty of Medicine at University of Queensland. She is President-Elect of the Australian and New Zealand Association of Neurologists. Her research interests are broad and encompass autoimmune diseases of the nervous system as well as immune response to acquired diseases of the brain. She has published on experimental autoimmune encephalomyelitis, multiple sclerosis, myasthenia gravis, Guillain Barre syndrome and CIDP, stroke and motor neurone disease. She has a special interest in the role of gender and of pregnancy in neurological and immune disease.



**Malcolm Hogg**  
**Anaesthesia and Pain Management Specialist**  
**Melbourne, Australia**

Speaking on the issue with opioids prescribing, including for post-operative pain

Dr Hogg is a Staff Specialist, Anaesthesia and Pain Management at the Royal Melbourne Hospital and Head of Pain Services at Melbourne Health. Dr Hogg supervises a co-ordinated range of services, linking in hospital acute and interventional pain management with outpatient multidisciplinary services. Therapies offered include interventional procedures for cancer and non-cancer pain, and allied health-based pain management programs. Research interests include early identification and management of people with acute pain at risk of developing chronic disabling pain.

Dr Hogg is a Past-President of the Australian Pain Society and current board member of PainAustralia. He is co-ordinating the Waiting in Pain project, a systematic investigation into the provision of persistent pain services in Australia.

Dr Hogg spent his early post-graduate years at Royal Melbourne Hospital, including the bulk of his Anaesthesia training. Overseas experience was gained at Mayo Clinic in USA, prior to 5 years at the Prince of Wales and Sydney Children's Hospitals, for specialist experience in Pain Medicine. Upon returning to Victoria, Dr Hogg has developed a specialist pain medicine practice based at the Royal Melbourne Hospital, with roles in student and specialist education, policy development and supporting outer-urban and rural services. A small private practice is developing to complement these roles, including collaborations with like-minded pain clinicians and providing complimentary services to surgical and anaesthesia colleagues.



**Neil Carrington**  
**Leadership Coach**  
**Brisbane, Australia**

Dr Carrington will share insights and provide practical strategies to enable neurosurgeons to grow and develop in their non-technical life

Dr Neil Carrington is the CEO of ACT For Kids, a leadership coach and sought-after professional speaker. His Harvard Business School speaker series in 2018 in Australia was sold-out. Neurosurgery is one of a number of professions where the intensity, pace and gravity of the work can have important and negative consequences for the surgeon, their family and friendships. In this session Dr Carrington will share insights and provide practical strategies to enable neurosurgeons to grow and develop in their non-technical life.