

# 1st World Conference of Computational Neurosurgery

13-15 February 2026

Sydney, Australia | Hyatt Regency Sydney

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## Day 1

13 February 2026

07.00-08.00 am

Registrations

### Opening

Time	Duration	Speaker	Talk	Country
8:00	0:10	Antonio Di Ieva	Welcome and introduction to the 1st WCNS	
8:10	0:05	Marcus Stoodley	Greetings and Acknowledgement of Country	
8:15	0:15	Walangari Karntawarra	Didgeridoo performance	
8:30	0:05	Antonio Di Ieva	Introduction to Dr. Apuzzo's flagship keynote	
8:35	0:20	Michael Apuzzo (online)	AI: A Tool of Reinvention?	USA

### Computational Neuro-oncology – Neuroimaging

Chairs: Prof. Antonio Di Ieva, Prof. John Magnussen

Time	Duration	Speaker	Talk	Country
9:00	0:10	Antonio Di Ieva	AI in Neuroimaging and Digital Neuropathology: The Good, the Bad, the Ugly... and the Weird!	Australia
9:10	0:05	Antonio Di Ieva	Introduction to Prof. Bakas' Keynote	
9:15	0:30	Spyridon Bakas	Keynote: Computational Neuroimaging	USA

9:45-10:15

Morning Break

Time	Duration	Speaker	Talk	Country
10:15	0:10	Santiago Cepeda	Computer Vision Applied to Intraoperative Ultrasound for Brain Tumor Surgery	Spain
10:25	0:10	Somayeh Farahani	Deep learning for the prediction of genetic status in gliomas' MRI	Australia/Iran
10:35	0:10	John Magnussen	Multimodality Integration in Neuroimaging: Is AI the Answer?	Australia

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Time	Duration	Speaker	Talk	Country
10:45	0:10	Yang Song	Interpretable Deep Learning for Biomedical Imaging	Australia
10:55	0:10	Zonguan Ge	Principles of Deep Learning in Neurosurgery	Australia
11:05	0:10	Mehnaz Tabassum	Meta transfer learning for brain tumor segmentation using nnUNet in meningioma and metastasis cases	Australia
11:15	0:10	Massimo Bottini	Challenges in Synthetic Image Reconstruction from Low-information Inputs	Switzerland
11:25	0:10	Benjamin Schäli	A Review of Current Evaluation Methods for Synthetic Imaging	Switzerland
11:35	0:10	Michael Urch	Specialist Models for Data-Efficient Brain Tumour Segmentation in the BraTS challenge	Australia
11:45	0:10	Minh-Son To	Grand Challenges in Machine Learning for Computational Neurosurgery	Australia
11:55	0:10		BRAINSTORM	

12:05 – 13:00

LUNCH BREAK

## Computational Neuro-oncology – Digital Neuropathology

Chair: Dr. Laveniya Satgunaseelan, Dr. Kimberley Alexander

Time	Duration	Speaker	Talk	Country
13:00	0:05	Antonio Di Ieva	Introduction to Prof. Mahmood's Keynote	Australia
13:05	0:30	Faisal Mahmood	Keynote: Computational Neuropathology	USA
13:40	0:10	Laveniya Satgunaseelan	Brain Tumour Diagnostics: The Need for Speed	Australia
13:50	0:10	Kimberley Alexander	Machine Learning to detect blood fingerprints for accurate GBM surveillance	Australia
14:00	0:10	Sidong Liu	Generative AI in Computational Neuro-oncology	Australia
14:10	0:10	Imran Noorani	EGFR Amplification Prediction on Digital Neuropathology / Part I	UK/Australia
14:20	0:10	Homay Danaei Mehr	EGFR Amplification Prediction on Digital Neuropathology / Part II	Australia
14:30	0:10	Shrinith Babel	From Big Data to Small Data: Developing AI in Neurosurgery	USA
14:40	0:10	Yinyan Wang	Advancements of AI technology for Glioma Surgery at Beijing Tiantan Hospital	China
14:50	0:10	Sahar Moradi	Explainable Brain Tumor Detection with Eye Fixation Density Map Alignment	Australia

15:00 – 15:30

AFTERNOON BREAK

# Day 1

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## Hyperspectral imaging and AI in neurosurgery

Time	Duration	Speaker	Talk	Country
15:30	0:10	Pablo Valdes	Computational Methods of Hyperspectral Imaging in Neurosurgery	USA
15:40	0:10	Eric Suero Molina	Hyperspectral Imaging for Brain Tumor Characterization: Towards Data- and AI-driven Surgical Guidance	Germany

## Computational Neurosurgery in Skull Base Surgery

Chair: Prof. Eric Suero Molina

Time	Duration	Speaker	Talk	Country
15:55	0:10	Sabrina M. Heman-Ackah	A Refined Machine Learning Algorithm for Predicting Facial Nerve Injury Following Resection of Vestibular Schwannoma	USA
16:05	0:10		BRAINSTORM	

## Computational Neurosurgery – Free Topics

Chair: Dr. Babak Kateb

Time	Duration	Speaker	Talk	Country
16:15	0:10	Stewart Caleb	Large Language Models in Neurosurgery	USA
16:25	0:10	Quinlan Buchlak	Implementing Digital Surgery Systems in Neurosurgery to Facilitate Intraoperative Decision Making and Education	Australia
16:35	0:10	Tomas Grondzak	Neural Networks in Cranioplasty: An Exploratory Study of AI-Assisted Cranial Reconstruction	Germany
16:45	0:05	Antonio Di Ieva	Introduction to Prof. Fornito's Keynote	
16:50	0:20	Alex Fornito	Connectomics of Brain Disorders	Australia
17:10	0:10		BRAINSTORM	

18:30 – 22:30

Social Dinner at Quay Restaurant, in front of the Sydney Opera House