



## **ESO SUMMER SCHOOL 2022**



**MONDAY 5<sup>TH</sup> SEPTEMBER – FRIDAY 9<sup>TH</sup> SEPTEMBER 2022**

**CENTRE FOR PROFESSIONAL DEVELOPMENT  
UNIVERSITY OF BIRMINGHAM MEDICAL SCHOOL, BIRMINGHAM, UK**



At the beginning of summer 2022 in the run up to the ESO Summer School, many questions were hanging in the balance. Will all the plans come together? Would yet another covid wave be with us? What would the weather decide to do? Would the UK find a new Prime Minister? Well plans did come together, covid numbers subsided, the Prime Ministerial race remains an ongoing saga and the weather promised to show us as many forms as possible in 5 days!

The 25th European Stroke Organisation Summer School took place from Monday 5th September – Friday 9th September 2022 at the Centre for Professional Development, University of Birmingham Medical School, Birmingham, UK.

Representing a collaboration of 5 stroke centres from the wider West Midlands region, the hosts and local organising committee comprised of Dr Phillip Ferdinand, Dr Don Sims, Dr Jason Appleton, Dr Sissi Ispoglou, Professor Christine Roffe, Dr Chris Wharton, Professor Indira Natarajan and Dr Girish Muddegowda (supported by a faculty 47 members strong from 11 countries) welcomed 48 participants from 24 European countries for a week of stroke education, networking and socialising.

The much anticipated first face to face Summer School since 2019, could Birmingham rise to the challenge and continue the legacy of the 24 Summer Schools before it?



Arrivals began on Sunday 4th September, with participants staying at Chamberlain Halls of residence on the Vale Village, 20 minutes walk from the medical school. The accommodation was comprised of individual en suite rooms, in flats of between 4 to 6 rooms.

The group first assembled on the Sunday evening at the Edgbaston Park Hotel (also the location of accommodation for faculty) on the edge of campus for a welcome meal and a chance to meet each other. It was clear from the outset that this was an interactive group and we all looked forward to the week ahead.



**Chamberlain Halls of Residence**



**The Vale Village (Chamberlain Halls top centre)**



**Edgbaston Park Hotel**



## MONDAY 5th SEPTEMBER

The theme of the opening session was hyperacute care and opened by Professors Gary Ford and Iris Grunwald talking on thrombolysis and mechanical thrombectomy in acute ischaemic stroke respectively. Dr Don Sims then spoke on organisational considerations in delivering an effective thrombectomy service.

After a short coffee break the group split into 3 and rotated around detailed discussion on 3 considerations for acute care: Blood pressure, oxygen therapy and venous thromboembolism prevention, led by Jason Appleton, Phillip Ferdinand and Christine Roffe. This gave an opportunity to look at these areas in more detail and also gain an understanding of the variation in practice. Discussion was lively and interactive and we recall on more than one occasion not having to speak as the group ran the discussion!

After lunch the theme was challenging topics. Dr Sissi Ispoglou tackled the complex area of atypical stroke presentation which was followed by an entertaining double session from Dr Ranjan Sanyal who covered the dizzy patient and posterior circulation strokes in his memorable and effective unique style.

Haematologist Dr Gillian Lowe spoke on the potential pathophysiology between ischaemic stroke and cancer and the treatment dilemmas that can ensue. The session was finished by Infectious Diseases Consultant Dr Neena Bodasing who through a series of case discussion brought out the clinical presentation of stroke in the context of infectious diseases.

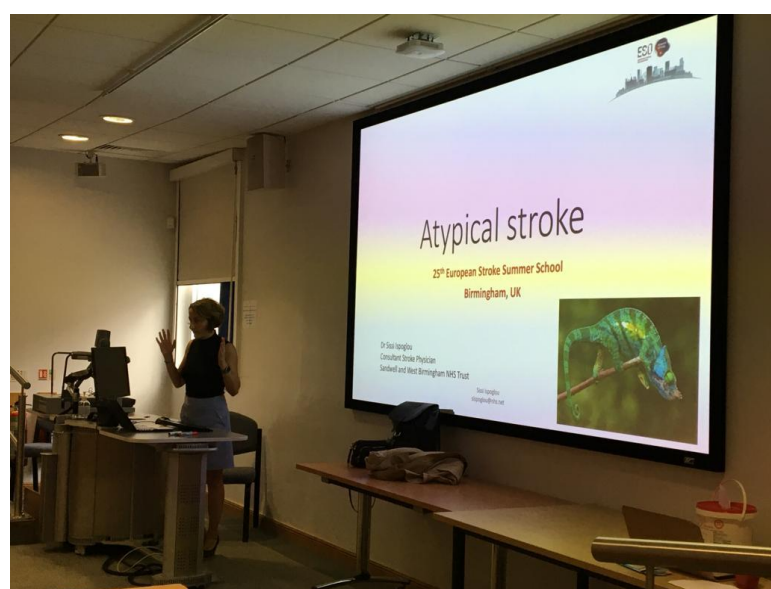
The team then ventured out into Birmingham City Centre and experienced some of Birmingham's cultural diversity through food at the fabulous Asha's Indian restaurant.



**Professor Gary Ford**



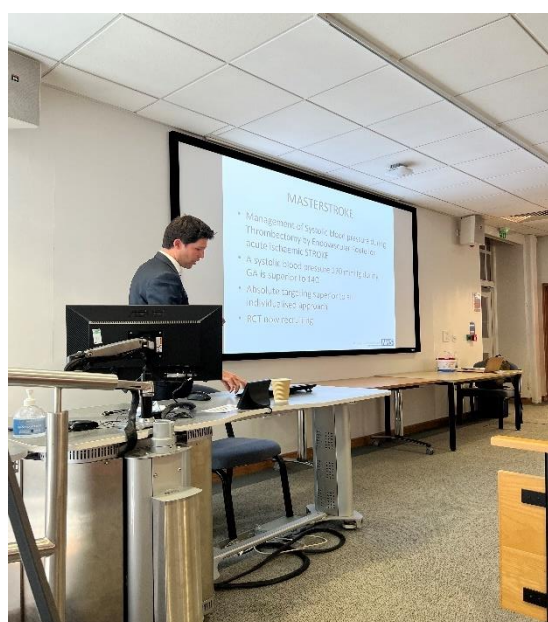
**Professor Iris Grunwald**



**Dr Sissi Ispoglou**



**Dr Don Sims**



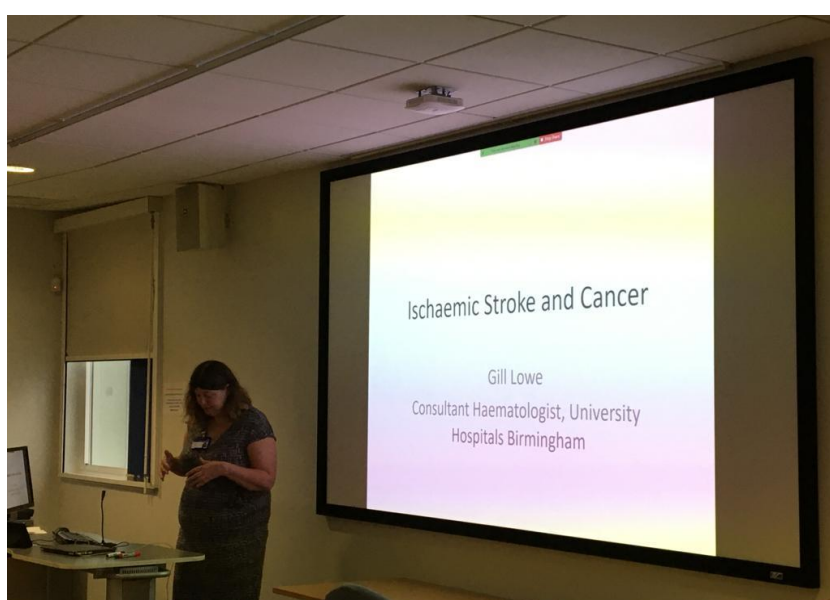
**Dr Adam Low**



**Dr Ranjan Sanyal**



**Small Group Session**



**Dr Gillian Lowe**





**Evening meal at Asha's Indian restaurant**

## **TUESDAY 6th SEPTEMBER**

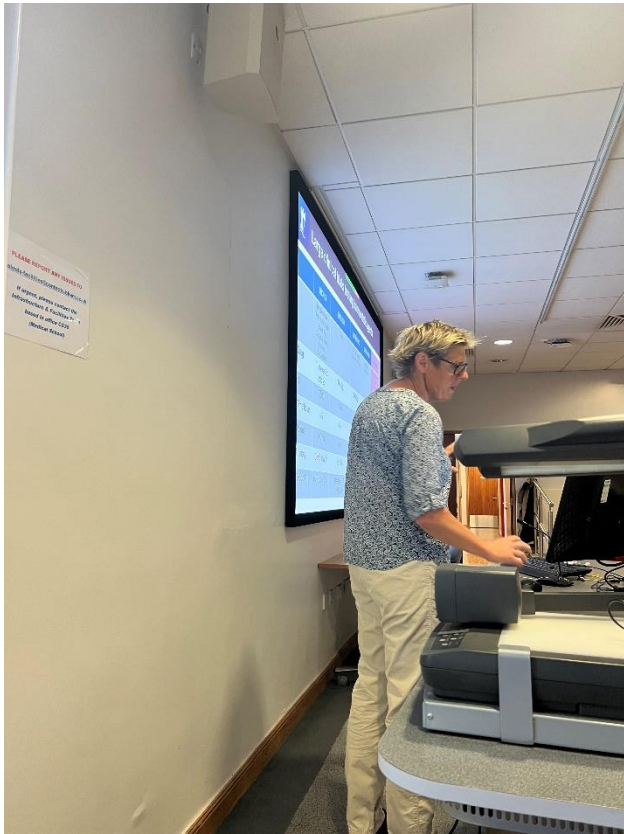
Tuesday mornings focus was intracerebral haemorrhage and begun with a comprehensive epidemiological overview from Professor Hanne Christensen. This was followed by a review of previous and current research on haemostatic therapies from Professor Nikola Sprigg and the first half of the morning was rounded off with a debate on the intensity of blood pressure lowering in ICH between Drs Adrian Parry Jones and Jason Appleton.

Professor David Werring updated the group on cerebral amyloid angiopathy and some of the therapeutic dilemmas and challenges and then Mr Edward White and Dr Samer Al-Ali gave a flavour of the neurosurgical and neuro-interventional radiological management of ICH.

Discussion continued well into lunch and then for the afternoon focus turned to secondary prevention in a variety of settings. Professor Tom Robinson gave an excellent overview of antiplatelets in TIA/minor stroke, Professor Joanna Wardlaw from the aspect of small vessel disease and Professor Rustam Al-Shahi Salman on the use of anti-platelets after brain haemorrhage.

The second half of the session allowed Drs Linxin Li and Phillip Ferdinand to focus on young stroke and the day was rounded off with a superb overview of stroke in women delivered virtually by Professor Anita Arsovska.

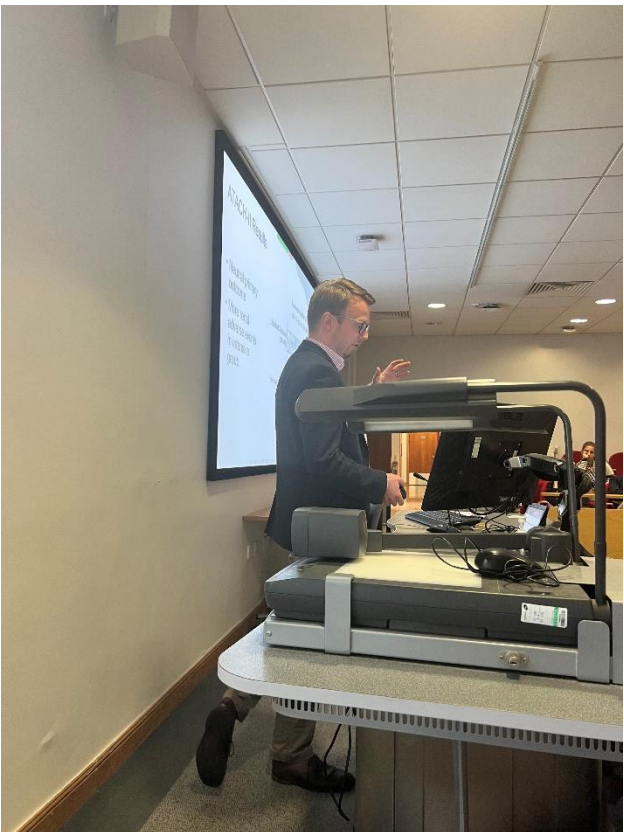
The evening meal took place in Piccolino Italian Restaurant in Brindley Place. The combination of a full day of stimulating lectures (or travelling for the ESO executive committee!) coupled with a delicious belly bursting 5 course meal meant everyone slept soundly on Tuesday night!



**Professor Nikola Sprigg**



**Dr Adrian Parry-Jones**

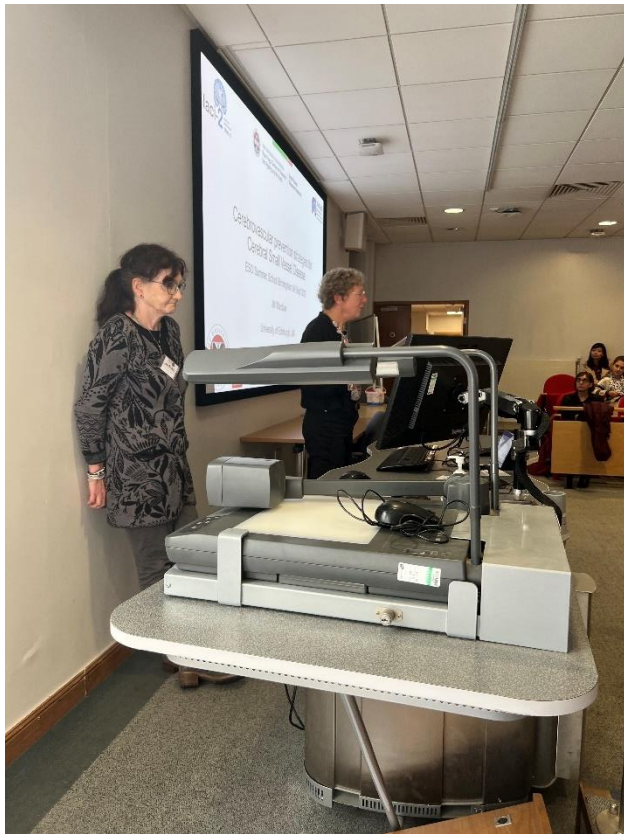


**Dr Jason Appleton**

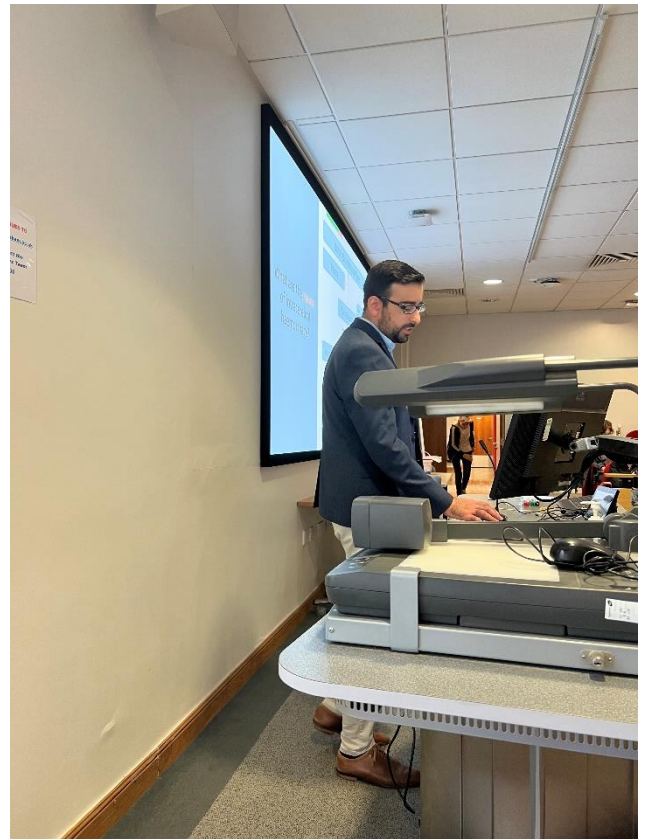


**Professor David Werring**





**Professor Joanna Wardlaw**



**Dr Samer Al-Ali**



**Evening meal at Piccolino Italian restaurant**



## WEDNESDAY 7<sup>th</sup> SEPTEMBER

On Wednesday the Summer School welcomed the ESO executive committee, who delivered the mornings lectures. Professor Georgios Tsivgoulis gave an extensive overview of the next frontiers for thrombolysis and thrombectomy, with Professor Thorsten Steiner reviewing the future for research in ICH. Dr Daniel Strbian gave a detailed physiological and clinical review of cerebral oedema in stroke followed by ESO president Professor Peter Kelly speaking on inflammation as the next target for secondary prevention.

After a short coffee break Professor Diana Aguiar de Sousa educated the group on cerebral venous sinus thrombosis including up to date information on covid vaccine related thrombosis. Professor Martin Dichgans enlightened the meeting on monogenic causes of stroke, but also the role of genetics in stroke aetiology and the implications this may have for future management. The session was rounded off by Dr Else Sandset who gave a personal and heartfelt talk on the horizon for stroke which no doubt inspired participants for the next stage of their careers.

The afternoon placed the magnifying glass on the cardiac causes of stroke. Professor John Camm gave a comprehensive assessment of atrial fibrillation and stroke which was beautifully complemented by Professor Robert Hatala's review of strokes beyond AF.

Dr Dargoi Satchidananda gave a thoroughly entertaining and important talk on cardiac failure and stroke and was followed virtually by his colleague Dr Robert Butler who filled in last minute to discuss the much debated topic of patent foramen ovale. The day was rounded off by Professor Jukka Putaala who gave an excellent overview of young stroke epidemiology and new approaches to discovering cardiac aetiologies of young stroke.

The evening again finished in Brindley Place but this time at Bank restaurant, with time for a group photo before tucking into the very British steak and chips!



**Dr Else Sandset**

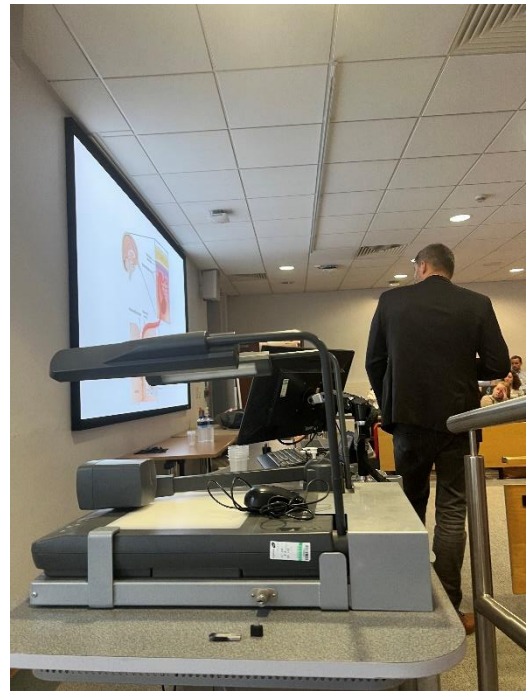


**Professor Martin Dichgans**





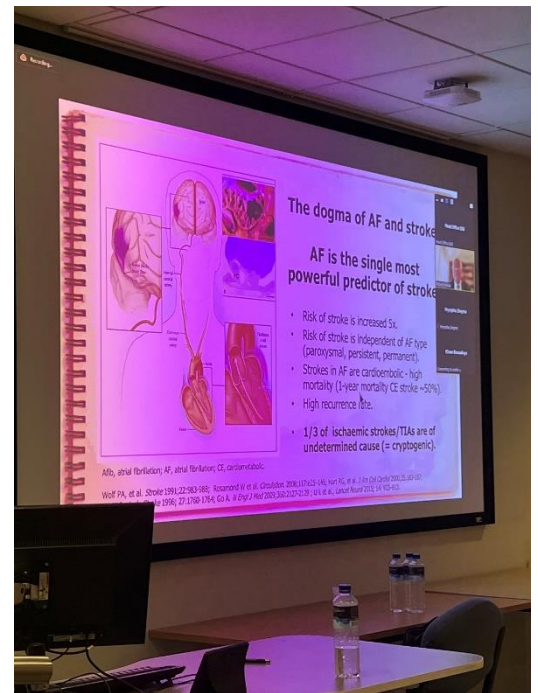
**Professor Georgios Tsivgoulis**



**Dr Daniel Strbian**



**Professor Diana Aguiar de Sousa**



**Professor Robert Hatala**







Evening meal at Bank restaurant



## THURSDAY 8<sup>th</sup> SEPTEMBER

Thursday mornings focus moved away from the front door and delved into life after stroke. Professor Nick Ward pre-recorded an excellent talk on upper limb rehabilitation and reminded us not to set a time limit on recovery. Dr Sachin Vashistha gave a comprehensive and practical overview of spasticity management before Dr Ulrike Hammerbeck rounded off the first part of the session with an enlightening overview on exercise post stroke.

The morning continued with a thought provoking talk by Dr Joseph Kwan on dietary approaches to stroke care, which was followed up by Professors Gillian Mead and Avril Drummond discussing fatigue and return to work – 2 issues which often go hand in hand. The morning was completed with a talk from Mr Brin Heliwell on his experiences as a stroke survivor and involvement in stroke research.

The afternoon focussed on stroke service delivery. Professor Silke Walter reviewed the evidence and practicalities of mobile stroke units with Professor Chris Price discussing pre-hospital assessment and the challenges of identifying thrombectomy candidates in the community. The remainder of the session was dedicated to stroke service structure in the UK.

Physiotherapist Panagiotis Stergiou discussed early supportive discharge and the community stroke team, and national clinical director for stroke Dr Deb Lowe discussed integrated stroke delivery networks and leadership within the stroke workforce. Dr David Hargroves gave a talk on the national imaging platform designed to address imbalances in current imaging provision and the afternoon was finished off by Dr Ajay Bhalla talking about the comprehensive Sentinel Stroke National Audit Program.

The final evening social of the week was at the Jam House where dinner was followed by music and dancing well into the night...

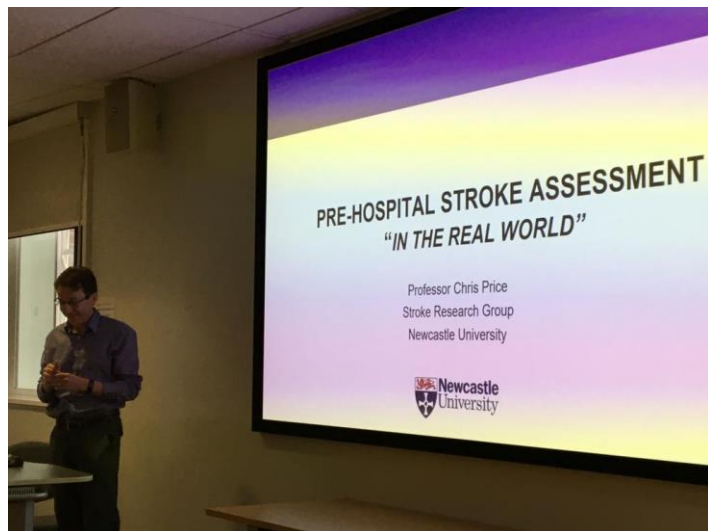


**Professor Silke Walter**

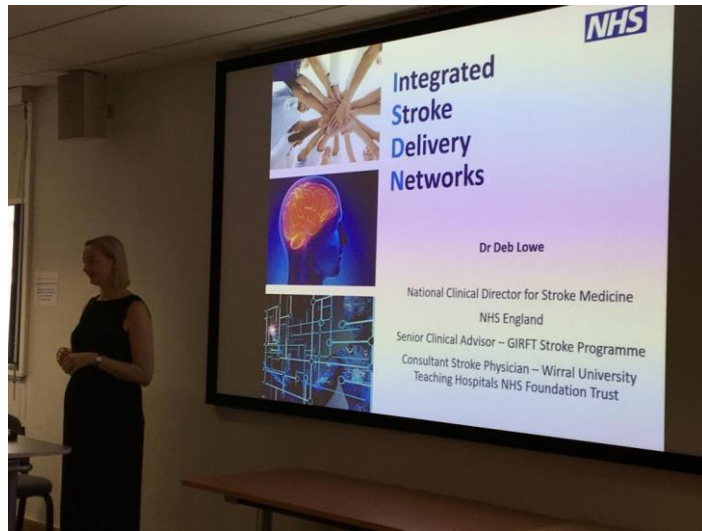


**Mr Brin Heliwell**

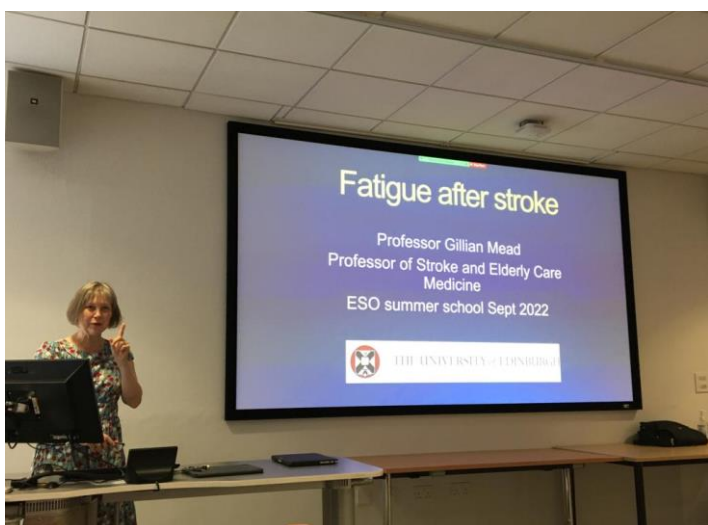




**Professor Chris Price**



**Dr Deb Lowe**



**Professor Gillian Mead**



**Professor Avril Drummond**



**Dr Ulrike Hammerbeck**



**Dr Joseph Kwan**







Evening meal at Jam House

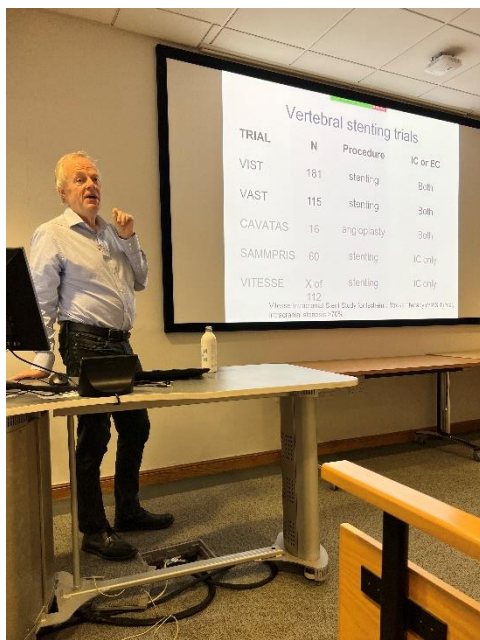


## FRIDAY 9<sup>th</sup> SEPTEMBER

The final day looked to current and future challenges ahead. Prof Hugh Markus opened the day with a talk on vertebral artery disease followed by Dr Terry Quinn reminding us of the importance of cognition in the aftermath of stroke. Professor Sefernur Ozturk gave an eye-opening virtual talk on stroke care in migrants. Professor Craig Smith gave an excellent talk on the relationship between infection and stroke and how covid has shaped this topic.

Schoolboy rivals Dr Nasar Ahmad and Dr Phillip Ferdinand approached the debate on treating all stroke patients the same irrespective of age from different angles which gave a broad opinion on what is an increasingly difficult treatment paradigm.

After lunch the meeting was concluded by Professor Christine Roffe who discussed the challenges of stroke care beyond the front door – this sparked some interesting debate which showed participants attention and focus was maintained right up to the very last lecture!



**Professor Hugh Markus**



**Dr Terry Quinn**

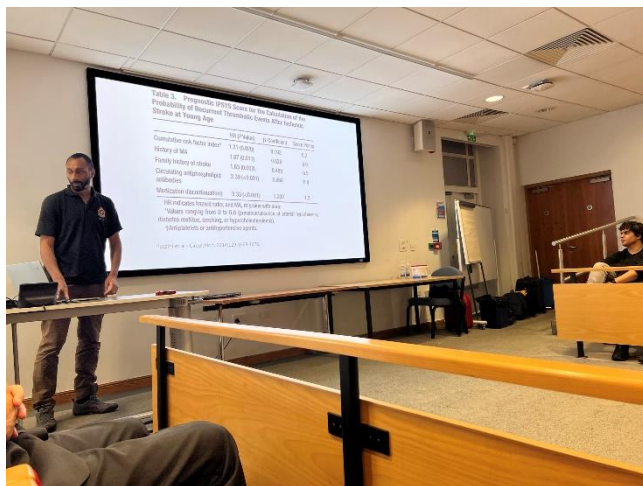


**Professor Craig Smith**

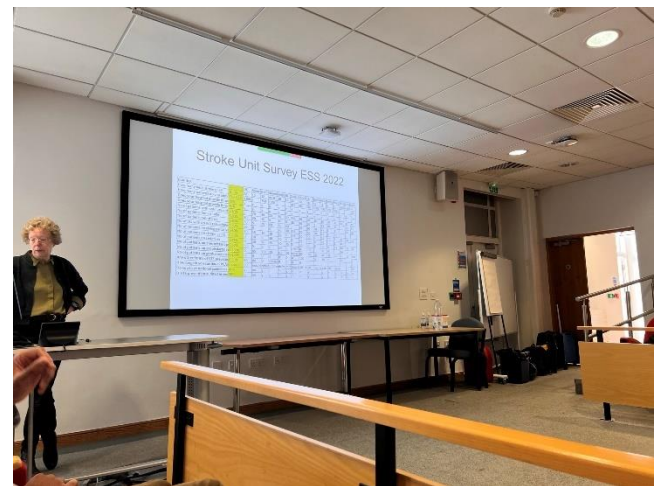


**Dr Nasar Ahmad**





**Dr Phillip Ferdinand**



**Professor Christine Roffe**



**Professor Serefnur Ozturk**





## **SUMMARY**

The 25<sup>th</sup> ESO Summer School was an overriding success due to many factors.

Firstly we are thankful to the ESO Education Committee for awarding and entrusting us with the responsibility of delivering the 25th ESO Summer School which has been an absolute pleasure to host on behalf of Birmingham and the West Midlands region.

We would like to thank the Centre for Professional Development at the University of Birmingham Medical School. In particular George Merriman for his organisation of the venue and accommodation and his attentiveness throughout the whole week. We would also like to thank the Edgbaston Park Hotel for providing outstanding accommodation to house faculty. Thanks also extend to Asha's, Piccolino's, Bank and The Jam House for providing wonderful food and venues to socialise and relax during the evenings.

We are extremely grateful to our sponsors whom without their support the week would not be possible: European Stroke Organisation, Medtronic, Firstkind, Phenox, Brainomix, Stryker, Rapid AI, Penumbra, National Institute for Health and Care Research, World Stroke Organisation, University Hospital North Midlands, British and Irish Association of Stroke Physicians.

A special mention and thanks to Meaghan Dreyer from ESO Head Office for her invaluable support and guidance throughout the planning of the Summer School.

Our gratitude goes to the amazing faculty who lived up to their billing and delivered outstanding high quality and interactive lectures that inspired the next generation of stroke physicians. We are grateful for their time and also their approachability during coffee breaks, lunch and dinner – we know participants especially appreciated this latter aspect.

Most importantly we also like to thank the participants. It is one thing to have great faculty, but this has undoubtedly been matched by an open, intellectual, enthusiastic and interactive group who have participated, listened, challenged, discussed and debated throughout the whole week and made their ESO Summer School exactly what we had hoped it would be.

## **LOCAL ORGANISING COMMITTEE**

Dr Phillip Ferdinand, University Hospital North Midlands

Dr Don Sims, University Hospitals Birmingham

Dr Jason Appleton, University Hospitals Birmingham

Dr Sissi Ispoglou, Sandwell and West Birmingham Hospitals NHS Trust

Professor Christine Roffe, University Hospital North Midlands

Dr Chris Wharton, Royal Wolverhampton NHS Trust

Professor Indira Natarajan, University Hospital North Midlands

Dr Girish Muddegowda, Worcestershire Acute Hospitals NHS Trust

Dr Mohammed Shoaib, University Hospital North Midlands

Dr Fahad-Bin Zahid, University Hospitals Birmingham

## **FACULTY**

Dr Nasar Ahmad, UK

Dr Samer Al-Ali, UK

Professor Anita Arsovska, North Macedonia

Dr Ajay Bhalla, UK

Dr Neena Bodasing, UK

Dr Robert Butler, UK

Professor John Camm, UK

Professor Hanne Christensen, Denmark

Professor Martin Dichgans, Germany

Professor Avril Drummond, UK

Professor Gary Ford, UK

Professor Iris Grunwald, UK

Dr Ulrike Hammerbeck, UK

Dr David Hargroves, UK

Professor Robert Hatala, Slovakia

Mr Brinton Heliwell, UK



Professor Peter Kelly, Ireland

Dr Joseph Kwan, UK

Dr Linxin Li, UK

Dr Deb Lowe, UK

Dr Gillian Lowe, UK

Dr Adam Low, UK

Professor Hugh Markus, UK

Professor Gillian Mead, UK

Professor Serefnur Ozturk, Turkey

Dr Adrian Parry-Jones, UK

Professor Chris Price, UK

Prof Jukka Putaala, Finland

Dr Terry Quinn, UK

Professor Thompson Robinson, UK

Professor Rustam Al-Shahi Salman, UK

Dr Else Sandset, Norway

Dr Ranjan Sanyal, UK

Dr Dargoi Satchidananda, UK

Professor Nikola Sprigg, UK

Professor Craig Smith, UK

Professor Diana Aguiar de Sousa, Portugal

Mr Panagiotis Stergiou, UK

Dr Daniel Strbian, Finland

Professor Thorsten Steiner, Germany

Professor Georgios Tsivgoulis, Greece

Dr Sachin Vashistha, UK

Professor Silke Walter, UK

Professor Joanna Wardlaw, UK

Professor Nick Ward, UK

Professor David Werring, UK

Mr Edward White, UK

## **PARTICIPANTS**

Diana Pimentel Alves, Portugal

M. Ece Guven Azap, Turkey

Irma Burdiladze, Georgia

Geraldine Dasnoy-Sumell, Belgium

Alexandru-Andrei Dimancea, Romania

Matthew Downer, UK

Mohamad Farah, Norway

Maria Gabriel, Germany

Ilaria Gandoglia, Italy

Anna Gardin, Italy

Julija Grigaite, Lithuania

Effrosyni Grosi, Greece

Josefine Grundtvig, Denmark

Stine Munk Hald, Denmark

Johanna Hartl, Germany

Dmytro Hrynykha, Ukraine

Mihai Radu Ionescu, Romania

Tiago Andre Mendes Dias de Jesus, Portugal

Kristian Karlovic, Bosnia and Herzegovina

Goran Knezovic, Serbia

Katarzyna Krzywicka, Netherlands

Kristin Tveitan Larsen, Norway

Franziska Lieschke, Germany

Theodoros Mavridis, Greece

David McShane, UK

Ghislaine Meelis, Belgium



Amina Mesmoudi, France  
Shandiz Morega, Romania  
Taras Moroz, Ukraine  
Benjamin JaaMing New, UK  
Christine O'Connor, UK  
Mira Orduyan, Armenia  
Ines Pecot, France  
Marieta Peitcheva, Bulgaria  
Antonio Reia, Italy  
Nataliia Samosiuk, Ukraine  
Davis Seoane, Spain  
Angeloglou Stella, Greece  
Asya Tacheva, Ireland  
Elin Thomas, UK  
Tamila Tsulaya, Georgia  
Mantas Vaisvilas, Lithuania  
Lusine Vardanyan, Armenia  
Maria Vasilieva, Moldova  
Merel Verhagen, Netherlands  
Janis Vetra, Latvia  
Yuliia Vlasichuk, Ukraine  
Kaelig Watel, France

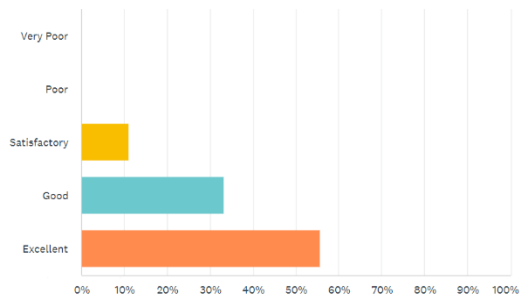
## **SELECTION CRITERIA**

We received 79 applications from 27 countries. Owing to the surplus, applications from outside of Europe were rejected. We followed the initial ESO guidance of allowing a maximum of 2 participants per country. Once places to every country were allocated using this formula, additional places were allocated to the countries with the highest number of applicants, with the UK allocated 3 places. There were very late dropouts in the week leading up to the Summer School and these were offered to UK candidates who had initially applied given the ease of making travel arrangements.

## FEEDBACK

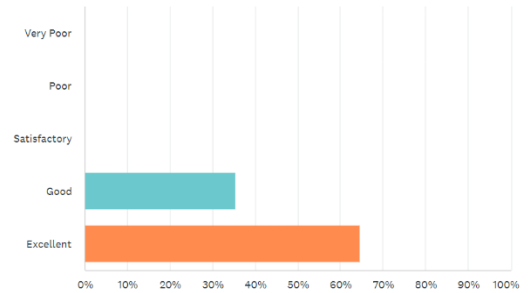
How would you rate the accommodation?

Answered: 18 Skipped: 0



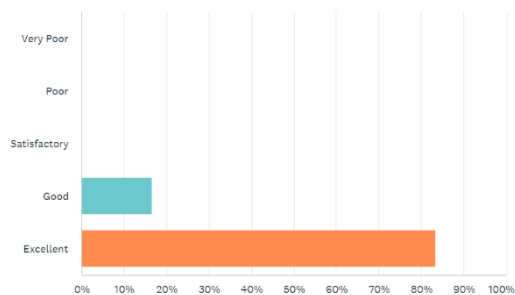
How would you rate the venue and its facilities?

Answered: 17 Skipped: 1



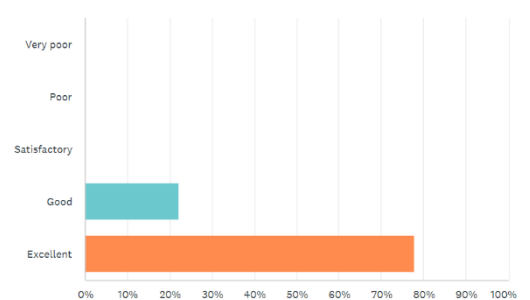
How would you rate the lecture program?

Answered: 18 Skipped: 0



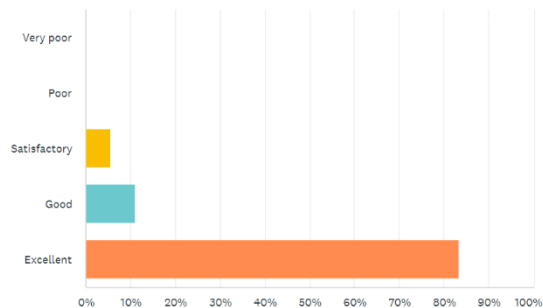
How did you rate the evening program?

Answered: 18 Skipped: 0



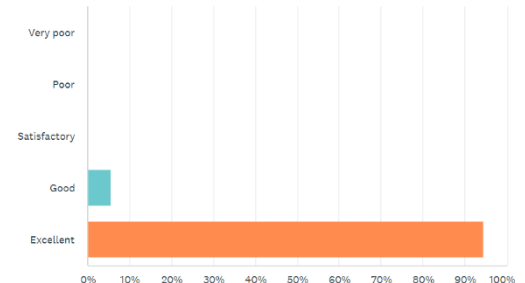
How would you rate the communication about the Summer School?

Answered: 18 Skipped: 0



How was the overall organisation of the Summer School?

Answered: 18 Skipped: 0



### Did you have any highlights from the week?

‘The quality of the talks and speakers, the kindness and approachability of the organising committee and the general feeling that I was very lucky to have been able to attend. Diolch/thank you!’

‘each lecture was a highlight, as the topics had so much impact. My personal highlights were all the speakers themselves, seeing that they are very experienced, important and advanced researchers, who really cared about us even if they don't have much time.’

‘The nutrition lecture was absolutely needed, I am gonna recommended to all young ESO members, when it becomes accessible online.’

‘Whole week was a highlight’



‘Quality of the speakers and break out sessions’

‘Great accommodation, great programme, also really good evening programme!’

### **How could the week have been improved?**

‘Maybe if we could visit a comprehensive stroke center but it was great even without this part.’

‘a little official round of introductions of the attendees in an uncomplicated way would have been great to make it easier to network, questioning specially researches, favourite stroke topics and future aspirations’

‘Maybe just a little time to take in the amazing things we learned. Waking up 6.30 - 7, breakfast 7-7.30, lectures 8-8.35 until 17 - 17.30 Dinner at 19.30, with about a transport time between 30 and 60 minutes for everything. And then to bed at 23. It becomes at long week, which is completely okay, but just a little more resting time, either an earlier dinner, with earlier bedtime or just an hour more to rest in the middle of the day, would make the lectures easier to absorb.’

‘Break out sessions every once and a while. It wakes you up:)’

‘Lectures starting a little later’



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BRAINOMIX

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Penumbra



NIHR | National Institute for Health and Care Research

University Hospitals  
of North Midlands



NHS Trust



World Stroke  
Organization



British & Irish Association  
of Stroke Physicians  
*Advancing stroke medicine*



