



# ECMINT

European Course of  
Minimally Invasive Neurological Therapy



# EBNI

Preliminary programme 4.4

**Endovascular Treatment of Arteriovenous Malformations and Fistulas**  
**Monday 12<sup>th</sup> to Friday 16<sup>th</sup> December 2022**  
**St Anne's College, Oxford**

Course Directors: Dr. Adam Rennie, Prof. Phil White, Prof. Peter Jezzard  
Course Administrator: Ms. Tarryn Ching

**Monday, 12<sup>th</sup> December 2022 (Mary Ogilvy Lecture Theatre)**

<b>12.00</b>	<b>Registration / Lunch</b>	
13.00 - 13.15	Introduction to program and outline of course structure	<b>Dr A Rennie/ Pr P White</b>
13.15 - 13.40	Natural history of brain AVMs	<b>Pr P White</b>
13.40 – 14.05	Classification of brain AVMs	<b>Pr T Andersson</b>
14.05 - 14.30	Techniques for transarterial embolization of brain AVMs	<b>Pr M Aggour</b>
14.30 – 15.00	Management of unruptured AVMs – ARUBA fall-out	<b>Pr R Al-Shahi Salman</b>
<b>15.00 - 15.15</b>	<b>Coffee / Check in</b>	
15.15 – 15.40	Role of fMRI in bAVM treatment planning	<b>Dr N Voets</b>
15.40 – 16.05	Genetics of bAVMs	<b>Dr J Berg</b>
16.05 – 16.35	Anatomy: the skull base	<b>Dr S Renowden</b>
16.35 – 17.00	Functional vascular neuroanatomy of the brain stem	<b>Dr R Lenthall</b>
17.00 - 18.30	Formative Quiz 1: 1h indicative but up to 90mins allowed (Orzone on-line)	
<b>19.15 prompt</b>	<b>Dinner St Anne's College</b>	



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## Tuesday, 13<sup>th</sup> December 2022 (Mary Ogilvy Lecture Theatre)

08.30 – 09.00	Liquid embolic agents	<b>Dr S Lamin</b>
09.00 – 09.45	Techniques for transvenous embolisation of brains AVMs	<b>Pr M Aggour</b>
09.45 - 10.15	Cavernous Malformations, telangiectasias and DVAs – natural history and management	<b>Dr M Gawlitzka</b>
<b>10.15 – 10.30</b>	<b>Tea / Coffee</b>	
10.35 - 11.50	Tutorial 1	
11.50 – 12.30	Imaging for pial AVMs and AVFs: how I assess angioarchitecture	<b>Pr Z Kulcsar</b>
<b>12.30 – 13.30</b>	<b>Lunch</b>	
13.30 – 14.45	Tutorial 2	
14.50 – 16.00	Tutorial 3	
<b>16.00 – 16.15</b>	<b>Tea / Coffee</b>	
16.15 – 16.40	Vessel closure devices: which should we use?	<b>Dr R Lenthall</b>
16.45 – 18.00	Tutorial 4	
<b>19.15 prompt</b>	<b>Dinner at St Anne's College</b>	



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## Wednesday, 14<sup>th</sup> December 2022 (Mary Ogilvy Lecture Theatre)

08.30 – 09.00	Functional vascular neuroanatomy of the thalamus and internal capsule	<b>Dr S Renowden</b>
09.05 – 10.15	Tutorial 5	
<b>10.15 – 10.30</b>	<b>Tea / Coffee</b>	
10.30 – 11.00	Management and prevention of complications during AVM embolization	<b>Pr E Boccardi</b>
11.00 - 11.25	Spinal vascular embryology and anatomy	<b>Dr A Rennie</b>
11.30 - 12.40	Tutorial 6	
<b>12.40 – 13.40</b>	<b>Lunch</b>	
13.40 – 14.50	Tutorial 7	
14.50 – 15.20	Cerebral proliferative angiopathy: what is it?	<b>Dr F Robertson</b>
<b>15.20 – 15.35</b>	<b>Tea / Coffee</b>	
15.40 – 16.50	Tutorial 8	
16.50 - 18.20	Formative Quiz 2- 1h indicative but up to 90mins allowed (Orzone on-line)	
<b>19.00</b>	<b>Meet at lodge</b>	
<b>19.30</b>	<b>Dinner at Oriel College</b>	



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## Thursday, 15<sup>th</sup> December 2022 (Mary Ogilvy Lecture Theatre)

08.30 – 09.00	Embolisation of spinal vascular malformations	<b>Dr A Rennie</b>
09.05 – 10.15	Tutorial 9	
<b>10.15 – 10.30</b>	<b>Tea / Coffee</b>	
10.35 – 11.45	Tutorial 10	
11.50 – 12.30	Brain AVMs How I approach them (+ complimentary Pr. C Cognard online only lecture accompanying)	<b>Dr AC Januel</b>
<b>12.30 - 13.30</b>	<b>Lunch</b>	
13.30 – 14.10	Surgery for brain AVMs: patient selection, operative considerations and post-operative management	<b>Pr A Laakso</b>
14.10 - 14.50	High flow vascular malformations in children: pathophysiology and management	<b>Dr F Robertson</b>
<b>14.50 - 15.10</b>	<b>Tea / Coffee</b>	
15.10 - 15.40	Quality of life in brain AVM patients	<b>Pr A Laakso</b>
15.40 - 16.25	Spinal intervention: the vertebral column	<b>Dr S Morgan</b>
16.25 - 16.55	Stereotactic Radiosurgery for AVMs: with or without embolization?	<b>Dr C Tancu</b>
<b>19.15 prompt</b>	<b>Dinner at St Anne's College</b>	



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## Friday, 16<sup>th</sup> December 2022 (Mary Ogilvy Lecture Theatre)

**(NB. Check out before start of morning is preferable)**

09.00 - 09.30	Sedatives, analgesics, seizure medication in Interventional Neuroradiology	<b>Dr B Feix</b>
09.30 – 10.00	Biomechanics of the spine: the basics an interventionist needs to know	<b>Dr S Morgan</b>
<b>10.00 – 10.30</b>	<b>Coffee / check out</b>	
10.30 – 12.00	Final Quiz (Orzone on-line)	
12.00 – 13.30	Quiz overview Q and A, discussion	<b>Pr P White</b>
<b>13.30</b>	<b>Course ends</b>	

### Tutorials 1-5 (Group 1)

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|---|---|
| <ul style="list-style-type: none"> <li>• Management and prevention of complication during EVT of brain AVMs</li> <li>• Embolisation of brain dAVF: how I do it</li> <li>• Strategies for managing dAVFs</li> <li>• Facial vascular malformations: classification and management</li> <li>• The pragmatists approach to bAVM management</li> </ul> | <p><b>Pr Z Kulcsar</b></p> <p><b>Pr M Aggour</b><br/><b>Pr T Andersson</b><br/><b>Dr S Lamin</b><br/><b>Pr P White &amp;</b><br/><b>Dr R Lenthall</b></p> |
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### Tutorials 6-10 (Group 2)

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| <ul style="list-style-type: none"> <li>• Natural history and management of spinal (vascular) malformations</li> <li>• Percutaneous spinal techniques (to include facet joint injections, epidural injections, nerve root blocks)</li> <li>• Assessing the risks of embolisation of AVMs for the individual patient: Should I embolise this brain AVM? When would I advise other Rx modality?</li> <li>• Angiographic analysis of AVM angioarchitecture and relevance to embolisation strategy</li> <li>• Management of intracranial vascular malformations in neonates and young children</li> </ul> | <p><b>Dr A Rennie</b><br/><b>Dr S Morgan</b></p> <p><b>Pr E Boccardi</b></p> <p><b>Dr AC Januel</b></p> <p><b>Dr F Robertson</b></p> |
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