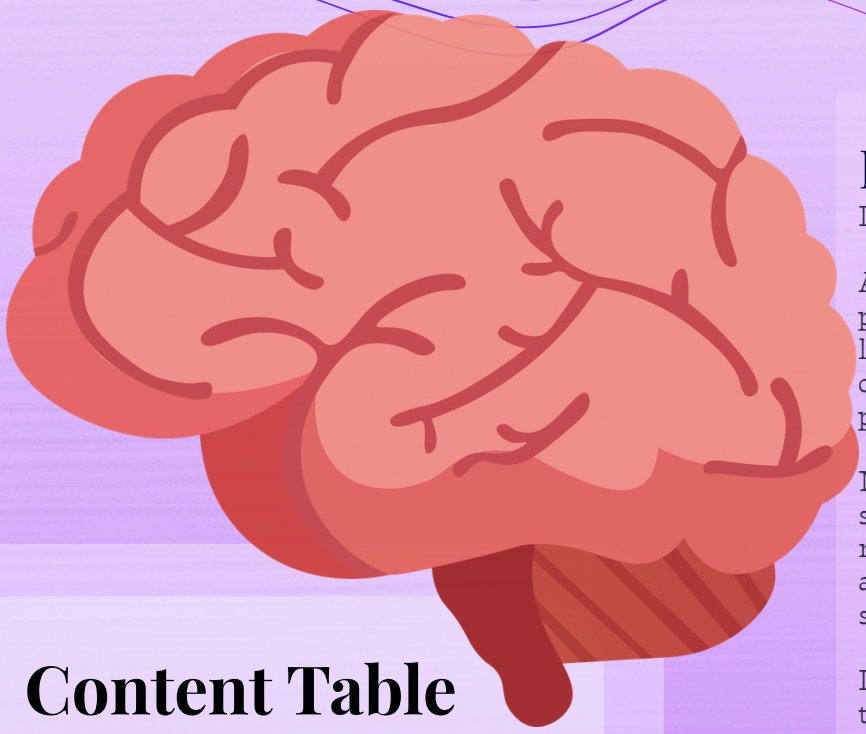
The National Undergraduate Neuroanatomy Competition Newsletter 2026

NEURO transmissions



Content Table

Editor's Note

Dear Neuro Enthusiast,

As the competition draws closer, the nature of preparation begins to shift. At this stage, it is no longer just about what you know, but how confidently and clearly you can think under pressure.

Neuroanatomy rewards those who can connect structure to function in real time. The ability to mentally map pathways, interpret clinical clues, and stay composed when faced with unfamiliar scenarios is what truly sets candidates apart.

In this edition, we've curated content to support that transition. You'll find practice questions designed to challenge your applied understanding, a dedicated FAQs section to clarify any uncertainties, and insights from past winners and speakers to give you a realistic sense of what to expect on the day. We've also included a research spotlight exploring emerging work on the cerebellum, highlighting how foundational anatomy continues to shape cutting-edge discoveries.

Take a moment to reflect on how far you've come, not just in knowledge, but in the way you approach problems. That shift in thinking is what will carry you through.
Stay curious, stay sharp, and trust your process.

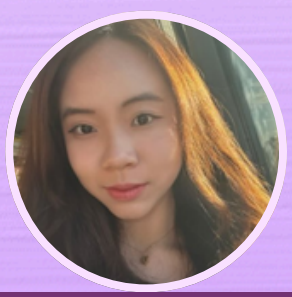
Yours faithfully,
Varunikha Anandan
Editor & Welfare Lead

Are you ready for the next edition of NUNC?

About NUNC

The National Undergraduate Neuroanatomy Competition (NUNC) is one of the UK's most respected student-led neuroanatomy events, now celebrating its 14th year. Founded in 2012 to push neuroanatomy education beyond the standard curriculum, NUNC has grown into a national hub for aspiring neurosurgeons, neurologists, and neuroscientists. Hosted this year at the University of Glasgow, the competition blends high-intensity spotters, clinically focused MCQs, expert talks, and hands-on workshops that challenge delegates at every level. What makes NUNC special is the atmosphere, when students come together to test their limits, learn from leading clinicians, and geek out over anatomy that most people never even get to see. Fourteen years on, NUNC continues to champion excellence, curiosity, and the future leaders of neuroscience.

Meet the Committee



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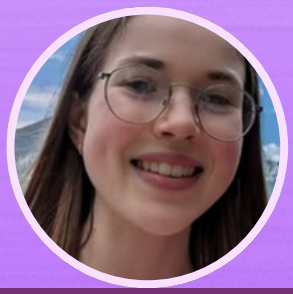
Welfare Lead & Editor



Amelia Dickson
General Committee Member

NUNC 2026 Tickets Now Available!!!

Secure your place at the 14th National Undergraduate Neuroanatomy Competition!

Location: University of Glasgow

Date: 30 May 2026

Our website can be accessed in our Linktree
linktr.ee/natneurocompuk

or on our website
www.natneurocomp.com

OUR SPONSORS

We are grateful to our sponsors for their continued support of the National Undergraduate Neuroanatomy Competition. Their contributions help deliver high-quality educational opportunities and support the development of future leaders in neuroscience.

MDU

Medics Academy

Society of British Neurological Surgeons
www.sbns.org.uk

Healthcare Leadership Academy

GEEKY MEDICS
geekymedics.com

14th Annual NUNC Schedule

Venue: University of Glasgow

30TH OF MAY 2026

08:45 – 09:30
Registration

09:30 – 10:00
Introductory Remarks

10:00 – 12:30
MCQ and Spotter Examination

12:30 – 13:10
Lunch

13:10 – 14:30
Workshops
(Two workshops will be held – details to be announced)

14:30 – 14:45
Coffee Break

14:45 – 16:15
Guest Speaker Talks
(Speakers to be announced)

16:15 – 17:00
Prizes and Closing Remarks

Hear from our past winners!

Artin Manafi-Khosroshahi

Distinction winner 2025, Pre-clinical

"Taking part in the NUNC was one of my highlights of 2nd year medicine. Beyond increasing my knowledge of neuroscience and neuroanatomy, which had direct impacts on my medical studies, this experience connected me with like-minded medical students and academics from across the country. Receiving a distinction was incredibly rewarding, but more importantly, the competition encouraged a deeper curiosity for functional neuroanatomy that I hope to carry forward into clinical training and my future career."

ARSH THAO

Runner up 2025, Clinical

Having taken part in NUNC for the previous three years, by far my biggest takeaway is a huge amount of insight into the breadth of knowledge present in a single system of the body, and the extent of an expanded curriculum. This is something I am appreciating more and more retrospectively, and it has unequivocally helped me to develop a more involved approach to learning other parts of medicine that three or even two years ago I would not have taken much of an interest in

ANNOUNCING Travel Bursaries

At NUNC, we aim to make our event as accessible as possible. Similar to previous years, we will be providing travel bursaries this year to cover the costs of transport to the event.

Deadline for application is the 15th of April !

Please note that spaces for bursaries are limited. Applications will be accepted on a case-by case basis, based on the answers to the form, and an application being submitted does not mean that funding is guaranteed.

Question Time

Q1. A 62-year-old man presents with:

- Dysphagia
- Hoarseness
- Loss of pain and temperature on the left face
- Loss of pain and temperature on the right body
- Ipsilateral Horner's syndrome

Which structure is most likely affected?
A) Anterior spinal artery
B) Posterior inferior cerebellar artery
C) Basilar artery
D) Superior cerebellar artery

Q2. A patient presents with:

- Right-sided spastic paralysis
- Hyperreflexia
- Positive Babinski sign

MRI shows a lesion in the left internal capsule.
Where has decussation already occurred?
A) Midbrain
B) Pons
C) Medulla
D) Spinal cord

Q3. A patient sustains a stab wound to the right side of the spinal cord at T10.

Which pattern is expected?
A) Loss of pain on right side below lesion
B) Loss of vibration on left side below lesion
C) Loss of pain on left side below lesion
D) Bilateral loss of motor function

Q4. A child presents with hydrocephalus. Imaging shows dilation of lateral and third ventricles only.
Where is the obstruction?
A) Foramina of Luschka
B) Foramen of Magendie
C) Cerebral aqueduct
D) Arachnoid granulations

Q5. A patient with head trauma develops:

- Dilated, non-reactive pupil on the right
- Contralateral hemiparesis

Which structure is compressed?
A) Optic nerve
B) Oculomotor nerve
C) Trochlear nerve
D) Abducens nerve

Q6. A lesion in the corticospinal tract results in:
A) Flaccid paralysis
B) Spastic paralysis
C) Sensory loss
D) Autonomic dysfunction

Answers

Q1. A 62-year-old man presents with:
- Dysphagia
- Hoarseness
- Loss of pain and temperature on the left face
- Loss of pain and temperature on the right body
- Ipsilateral Horner's syndrome

Which structure is most likely affected?
A) Anterior spinal artery
B) Posterior inferior cerebellar artery
C) Basilar artery
D) Superior cerebellar artery
Answer: B — PICA (Lateral medullary / Wallenberg syndrome)

Q2. A patient presents with:
- Right-sided spastic paralysis
- Hyperreflexia
- Positive Babinski sign

MRI shows a lesion in the left internal capsule.
Where has decussation already occurred?
A) Midbrain
B) Pons
C) Medulla
D) Spinal cord
Answer: C — Medulla (pyramidal decussation)

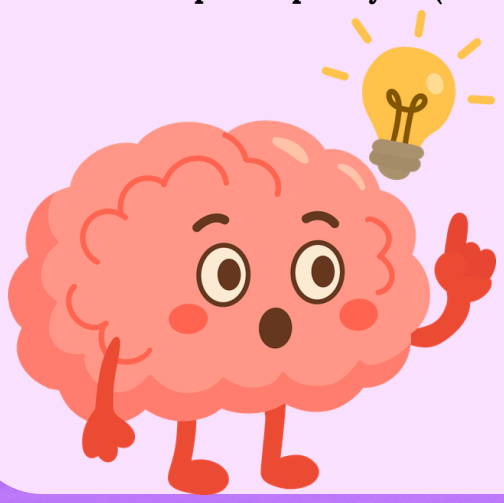
Q3. A patient sustains a stab wound to the right side of the spinal cord at T10.
Which pattern is expected?
A) Loss of pain on right side below lesion
B) Loss of vibration on left side below lesion
C) Loss of pain on left side below lesion
D) Bilateral loss of motor function
Answer: C — Contralateral pain loss (spinothalamic crosses early)

Q4. A child presents with hydrocephalus. Imaging shows dilation of lateral and third ventricles only.
Where is the obstruction?
A) Foramina of Luschka
B) Foramen of Magendie
C) Cerebral aqueduct
D) Arachnoid granulations
Answer: C — Cerebral aqueduct

Q5. A patient with head trauma develops:
- Dilated, non-reactive pupil on the right
- Contralateral hemiparesis

Which structure is compressed?
A) Optic nerve
B) Oculomotor nerve
C) Trochlear nerve
D) Abducens nerve
Answer: B — CN III (uncal herniation)

Q6. A lesion in the corticospinal tract results in:
A) Flaccid paralysis
B) Spastic paralysis
C) Sensory loss
D) Autonomic dysfunction
Answer: B — Spastic paralysis (UMN lesion)



RESEARCH CORNER

Beyond Coordination: The Cerebellum's Role in Cognition and Neuropsychiatric Disease

Why This Topic Matters

Traditionally, the cerebellum has been associated with motor coordination, balance, and precision. However, emerging research over the past two decades has fundamentally changed this view.

The cerebellum is now recognised as a key structure involved in:

- Cognitive processing
- Emotional regulation
- Behavioural control

This shift has major implications for how we understand neurological and psychiatric disorders.

Anatomical Basis

The cerebellum communicates extensively with the cerebral cortex via:

- Cerebrocerebellar loops (via thalamus)
- Corticopontocerebellar pathways

Functional divisions:

- Vestibulocerebellum → balance
- Spinocerebellum → posture and movement
- Cerebrocerebellum → planning + cognition

Key Concept: Cerebellar Cognitive Affective Syndrome (CCAS)

First described by Jeremy Schmahmann, CCAS highlights non-motor cerebellar function.

Features:

- Executive dysfunction
- Language impairment
- Visuospatial deficits
- Personality changes (flattened affect or disinhibition)

This is crucial: cerebellar lesions ≠ just ataxia anymore

RESEARCH CORNER

Current Research Evidence

1. Cognition & Executive Function

Functional MRI studies show cerebellar activation during:

- Problem-solving
- Working memory tasks
- Language processing

Suggests cerebellum modulates cortical efficiency, not just movement

2. Psychiatric Disorders

Cerebellar dysfunction has been implicated in:

- Autism spectrum disorder
- Schizophrenia
- ADHD

Abnormal cerebellar connectivity may disrupt predictive processing and timing, key in cognition and behaviour.

3. Neurodegenerative Disease

- Cerebellar atrophy contributes to cognitive decline
- Seen in conditions like:
  - Spinocerebellar ataxias
  - Multiple system atrophy

Mechanistic Insight

A leading theory is the "Universal Cerebellar Transform":

- The cerebellum applies similar processing rules to:
  - Motor signals
  - Cognitive information

Essentially: it fine-tunes thought the same way it fine-tunes movement

Future Directions

- AI-driven mapping of cerebellar networks
- Targeted neuromodulation (e.g. TMS)
- Integration into neuropsychiatric treatment models

- **REFERENCES**

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- Wang SS-H, Kloth AD, Badura A.The cerebellum, sensitive periods, and autism.Neuron. 2014;83(3):518–532.

Event Calendar

January

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Key Dates:

January: 27th BIASP Medical Student Short Essay Prize Deadline

February:

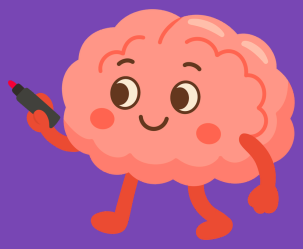
7th-8th NANSIG Annual Conference 2026 (Imperial College London)

April:

20th -21st Royal College of Surgeons Future of Surgery Festival

May:

30th NUNC Competition Date (University of Glasgow)



NB, even if you are subscribed to the newsletter, you will still need to purchase a ticket from our website here https://natneurocomp.com/tickets/

Interested in promoting your own Neuro-related event? Contact us at natneurocomp@gmail.com or @natneurocompuk on instagram

FAQs

Can students studying outside the UK or Republic of Ireland participate in the competition?

Yes, students studying overseas are welcome to attend and compete in the competition. However, please note that they will be participating unofficially, meaning they cannot be formally ranked or claim travel bursaries.

As a medical student, do I sign up for the pre-clinical or clinical category?

We recommend you select clinical if you will have begun full-time clinical placements by June 2026. This includes intercalating students who intercalate after clinical placements have started.

We will be standardizing categories across the board for the purpose of prizes - however, the questions will be the same regardless of your chosen category.

I am not a medical student - can I still take part?

We are officially open to any students studying an undergraduate degree in the UK or Ireland whose degree includes an anatomy component (e.g. Anatomy, Neuroscience). If you are unsure whether your course qualifies, please get in touch.