CALL FOR APPLICATIONS

Net4Brain Training School on Mathematical Oncology

Mathematical & Computational Biology of Brain Tumours

15-18 September 2026 · Palacio de los Condes de Valdeparaíso, Almagro, Spain

This is a Net4Brain EU COST Action sponsored programme (*https://net4brain-cost.eu*). The course combines morning lectures with supervised afternoon mini-projects and final student presentations. Only 20 trainees will be selected.

At a glance

Dates	15–18 September 2026. Arrival on Monday 14 September; departure on Friday 18 September.
Venue	Palacio de los Condes de Valdeparaíso, University of Castilla-La Mancha, Almagro, Spain.
Audience	Only Net4Brain PhD students and early-career researchers in mathematical, computational and data-driven neuro-oncology.
Format	Three and a half days: technical lectures before lunch, supervised team mini-projects in the afternoons, and final presentations on Friday morning.
Registration package	**€650** per selected participant, which covers full-board accommodation, meals and local transportation to the venue. Net4Brain will offer reimbursements to all selected trainees for participation, subject to the applicable COST/Net4Brain rules and documentation.
Application material	Curriculum vitae and a 300-word letter of intent submitted through the online application form.

Course summary

The Net4Brain Training School on Mathematical Oncology is an intensive, PhD-level course focused on brain tumours. It is designed to help young Net4Brain PhD students and early-career researchers connect neuro-oncology, mathematical modelling, artificial intelligence, bioinformatics, medical imaging, molecular profiling and clinical translation. The course will provide a compact overview of methods that can support quantitative insight into tumour growth, invasion, recurrence, treatment response, resistance, patient stratification and personalised modelling workflows.

Current thematic areas of the course include brain tumour biology; ordinary and partial differential equation models; agent-based and hybrid modelling; modelling of standard treatment, radiotherapy and treatment scheduling; emergence of resistance; image-based modelling and segmentation; MRI/MRSI-derived features; AI and machine learning for imaging and multi-omics; radiogenomics and multimodal data integration; explainable AI; uncertainty quantification; and digital twins for brain tumours.

Lectures and mini-projects

Morning technical lectures will introduce the core scientific and methodological ideas. **Afternoon mini-projects** are a central part of the school: trainees will work in small teams, supervised by trainers and senior mentors, on compact modelling or data-analysis tasks using synthetic, public or appropriately permissioned datasets. The mini-projects will emphasise reproducible workflows, transparent assumptions, model calibration, interpretation, uncertainty and translational relevance.

Each team will present its mini-project on the final morning. The expected output is a short presentation summarising the scientific question, modelling or computational approach, preliminary results, limitations and next steps.

Who should apply

- PhD students and early-career researchers working on, or strongly motivated to enter, mathematical and computational oncology of brain tumours.
- Applicants with backgrounds in applied mathematics, computational biology, AI/ML, medical imaging, radiomics, radiogenomics, multi-omics, neuro-oncology, radiotherapy modelling or related areas are encouraged to apply.
- Basic programming experience, preferably with Python/MATLAB, and familiarity with calculus, linear algebra and ordinary/partial differential equations will be useful. A fully specialised background in every topic is not expected.

Application and selection

Applications must be submitted through the online application form:

https://docs.google.com/forms/d/e/1FAIpQLSezVrJa1IDMtKXzl72fWwlFc-CFJnrGSJ3Phj4TonayxVIVsg/viewform?usp=publish-editor

Required documents	Selection
• Curriculum vitae • 300-word letter of intent describing academic background, current research, motivation and expected benefit from the Training School	Selection will be based on the relevance of the applicant's background, motivation, expected benefit, fit with the course aims and balance across the Net4Brain community. Only 20 trainees can be accommodated.

Important dates

Application deadline	10 July 2026
Notification of selected candidates	20 July 2026
Package registration deadline for selected candidates	Within two weeks after acceptance
Training School	15–18 September 2026

Once applicants are selected and informed, they will proceed with the registration.

Registration package and reimbursement

The package registration is €650 per selected participant. The package covers the following items:

- Lodging at the Palacio de los Condes de Valdeparaíso for four nights, with arrival on Monday 14 September and departure on Friday 18 September 2026.
- All meals during the Training School period: three lunches and three dinners from Tuesday to Thursday.
- Local transport from Ciudad Real train station to Almagro and back.

Net4Brain will offer reimbursements to all selected trainees for their participation in the course. Reimbursement will be processed according to the applicable COST/Net4Brain rules and will require the relevant supporting documentation. Certificates of participation will be awarded to all trainees who complete the Training School and participate in the final mini-project session.

After acceptance

- The first 20 selected candidates will be required to complete their package registration and payment within two weeks of receiving their acceptance notification.
- Selected candidates should use the registration link only after acceptance: https://fundaciongeneraluclm.es/registration-net4brain/
- If a selected candidate cancels or does not complete the package registration within the indicated deadline, the place and associated reimbursement slot may be offered to another eligible candidate on the waiting list.

Contact

For questions about the scientific programme or application procedure, please contact: *gabriel.fernandez@uclm.es*

Please note: the final lecture titles, trainers and mini-project topics may be adjusted before the course to best match trainer expertise and participant needs.