

Postdoctoral researcher in multidisciplinary mathematical oncology communication and/or education

Location: Department of Information Technology, Uppsala University, Sweden.

*Note that this position will be financed by a stipend from the Wenner-Gren foundations/Wenner-Gren stiftelserna upon formal approval (read more under **Application process**). This stipend is intended to support international scientific exchange. Therefore, to be eligible for this position, applicants must:*

- have a current or upcoming **non-Swedish** PhD Diploma,
- have been in Sweden for less than 9 months on October 31st 2024.
- have obtained their PhD after October 31st, 2019, and before December 31st, 2024,

Project description

Cancer research and the life sciences are becoming increasingly quantitative. With this, the need for scientists to work and communicate across multiple disciplines is growing. In this research project, we aim to analyse and improve multidisciplinary communication in research and/or education that includes mathematical oncology. The selected applicant will work on a defined theme, such as one of the themes listed below. Applicants are welcome to propose their own themes within the scope of the project.

Theme 1: On computational tools designed to aid multidisciplinary research and education. The postdoctoral researcher's main tasks will be to: (1) Develop computational tools that takes easily-interpretable descriptions of biological systems as inputs, and produces formulations and graphical solutions of the corresponding mathematical models as outputs. (2) Interrogate existing computational tools aimed at facilitating mathematical biology education and communication.

Theme 2: On multidisciplinary communication and trends in mathematical oncology research. The postdoctoral researcher's main tasks will be to: (1) Study and compile information on how mathematical oncology is disseminated and communicated to mathematical, medical and multidisciplinary research communities. (2) Suggest ways to improve multidisciplinary communication related to mathematical oncology.

Theme 3: On mathematical oncology education. The postdoctoral researcher's main tasks will be to: (1) Compile qualitative and quantitative information on how mathematical oncology is taught at undergraduate and postgraduate levels. (2) Interrogate existing teaching approaches and computational tools aimed at facilitating mathematical oncology education and communication.

The postdoctoral researcher will also

- work with local and international collaborators as part of a multidisciplinary team with experts in mathematical oncology, experimental and clinical cancer research, pharmacology, and/or bio-mathematical education,
- lead the writing of scientific manuscripts and present their work at international conferences.

The postdoctoral researcher will join the Artificial Intelligence and Mathematics for Oncology (AIMOn) group.

We are looking for candidates with:

- experience with mathematical oncology or mathematical biology,
- a keen interest in improving collaboration and communication across mathematical and bio-medical disciplines,
- the ability to clearly communicate in English through text and speech.

Start date: Between autumn 2024 – spring 2025, as agreed.

Financing: The selected candidate will receive a tax-free stipend of 28,000 SEK per month for 24 months to work on the project. Note that the stipend covers full time work and cannot be supplemented by salaries. However, the selected candidate is allowed to obtain up to 100,000 SEK in stipends per year from other funding bodies. Costs to travel to Uppsala when starting the position will be covered, unless the applicant is already in Uppsala.

Application process:

1. Applications should be uploaded to the **online application system** (link below). Applications should include a CV, a publication list, contact information to two references, their PhD diploma (or its expected date), and a cover letter (maximum 1 page) outlining
 - a. why [the applicant] is interested in the position,
 - b. which theme [the applicant] is interested in and why, and
 - c. how [the applicant's] background is suitable for the project and theme of interest.
2. Selected applicant(s) will be invited to a discussion-based interview.
3. Together with Sara Hamis, the selected candidate will write a project plan.
4. The project plan will be sent to the Wenner-Gren foundations for approval, without competition. Upon approval from the Wenner-Gren foundations, the selected candidate will formally be accepted as a postdoctoral researcher. The decision from the Wenner-Gren foundations is expected to be reached within two months of submitting the project plan.

Link to the online application system: <https://doit.medfarm.uu.se/bin/kurt3/kurt/8870872>

Apply by: July 15th, 2024.

Contact: Contact Sara Hamis (sara.hamis@it.uu.se) with any questions about the position or the application process.