Announcement: Post doc scholarship in Research into the Evolution of Multicellularity

Scholarship
Multicellular organisms like animals evolved from a single-celled and motile eukaryotic organism. This transition required an increased degree of spatiotemporal cell fate control. This control of cell fates involves for example the silencing of cellular capacities, such as cell motility, and the maintenance of others, like cell immaturity or stemness. How the control of cell immaturity and motility are related over animal evolution and development remains unknown.

Within the tissues like those in the human body, somatic cells are committed to perform a specific task in a specific location and, hence, not move from there. However, somatic cells can regain a capacity for cell motility (and stemness) when cancer evolves. This allows us to study the re-activation of a silenced cellular capacity and how it relates to cell stemness. We want to decipher to what extent cell motility relates to cell immaturity within the human body, and how modes of motility compare to those in single-celled eukaryotes. This scholarship aims to characterize the modes of cancer cell motility such that we can advance our insights to the re-activation and silencing of cellular capacities required for transitions between unicellular and multicellular organization.

The fellow would define if the mode of migration of polyaneuploid cancer cells (PACCs) is mesenchymal or amoeboid in 2D and 3D environments, using state-of-the-art live imaging techniques e.g., confocal microscopy of fluorescently tagged cancer lines, live-cell imaging in 3D suspensions (Ficoll) and 3D solid matrices. The fellow would collaborate with other workers in the field and particularly focus on the evolutionary analogues, such as to unicellular organism motility in different substrates/matrices.

Qualifications required

1. The applicant should hold a PhD degree in the biological sciences, preferably microbiology/biochemistry.
2. The applicant should have experience in investigations on cell motility, using advanced quantitative live-microscopy approaches
and know-how on the dissection of molecular principles underlying motility and cell membrane dynamics.

3. The applicant should have experience to work with single-celled eukaryotes (preferably yeast) as well as prokaryotes (e.g. E. coli).

4. The applicant should be used to defining and exploring research questions independently.

5. The applicant should have a good publication record, and a track record that reflects ambitious scholarship and a growth mindset.

6. The applicant should have good communication skills as well as able to interact efficiently in a team.

7. Excellent spoken and written English.

The applicant should not have been employed by Lund University within the last two years in order to be able to receive a scholarship. PhD degree should be ‘younger’ than three years at the last day of applying.

**Placement:** Translational Cancer Research at the Medical Faculty, LU  
**Ref No:** 2021/1520  
**Duration:** 24 months  
**Starting time:** 15th of June 2021, or after agreement  
**Last day for applying:** 6th of June 2021

**Application**

Apply by mailing Emma Hammarlund directly with a cover letter stating the reference number V 2021/1520, CV, proof of dissertation, and a one-page free style essay on any topic (plus any other relevant documents), addressed to emma.hammarlund@med.lu.se.  
**Last day of application is 2021-06-06**

**Other**

Lund University encourages both men and women to apply for the position.

**Information regarding post doc scholarships at Lund University**

- The scholarship amounts to 29,000 SEK/month and is normally paid three months in advance.

- The scholarship is intended for the recipient’s own education and does not constitute compensation for work carried out for the University.

- The scholarship is a grant and therefore not subjected to tax deduction.

- The scholarship does not entitle the recipient to compensation in case of illness.

- The scholarship does not constitute a pensionable income.

- The scholarship does not entitle the recipient to vacation.

- The scholarship does not include financial compensation for parental leave.
• The scholarship does not entitle the recipient to allowance during travels in the line of duty.

• The scholarship awarded is to be reviewed by the head of department every six months and the supervisor is to inform the head of department before each review of any significant circumstances.

• Scholarships set up by Lund University for any individual may not run for a period of more than 24 months.

• The scholarship follows the regulations established by the Vice-Chancellor of Lund University.

For further information please contact:
Emma Hammarlund
emma.hammarlund@med.lu.se