Announcement: Post doc scholarship in bioinformatics and cancer research

Scholarship
A postdoc scholarship is available for a highly motivated candidate with a strong background in bioinformatics and cancer biology.

High-risk neuroblastoma is a childhood cancer with often poor prognosis and there is a need for novel treatment strategies. We have recently established and characterized multiple neuroblastoma orthotopic patient-derived xenografts (PDXs). These PDXs retain the genotype, phenotype, tumorigenic, and metastatic properties of the tumors from which they were derived, making them authentic models for studying and targeting neuroblastoma metastasis and resistance (Brackeveldt et al., Cancer Res, 2018). The lab recently used high-throughput drug screening, 3D tumor organoids and PDX models to demonstrate that KSP-inhibition is a promising strategy in neuroblastoma (Hansson et al., Science Transl Med, 2020).

Our overall aims are to unravel mechanisms leading to metastasis and treatment resistance of neuroblastoma, and to test compounds targeting aggressive neuroblastoma. We perform molecular and functional studies of primary and metastatic tumor cells, as well as in vitro and in vivo drug testing using 3D tumor organoids and PDXs as model systems. Methods include cell- and molecular biology techniques, 3D tumor cell culturing, RNA-sequencing, clonal evolution assays, in vitro and in vivo drug testing.

We are looking for a new post doc with substantial bioinformatics experience to join our team. Focus will be on analysis of data generated in the different projects described above, with a special focus on setting up scRNA seq analysis within the neuroblastoma-bone marrow model. The post-doc will work in close collaboration with the rest of the team to apply various algorithms and bioinformatics tools to diverse types of bulk and single-cell generated data. The successful candidate will have the opportunity to use a computation-based approach to analyze “omic” data generated in the group as well as to use publicly available databases to generate testable hypothesis. The inclusion of wet-lab work in the position will be discussed with the candidate based on her/his preferences.
Qualifications required
1. The applicant should be able to conduct projects independently and critically
2. Broad experience of bioinformatics analyses in the cancer field
3. PhD in a relevant subject such as bioinformatics, computational biology or genomics
4. Having demonstrated knowledge with data analyses on genomic and transcriptomic levels, with proficiency in scientific programming languages (eg. R)
5. Experience from single cell (sc)RNAseq or scDNAseq is a strong merit
6. Experience with in vivo and in vitro work including standard molecular biology techniques is also a merit
7. Excellent communication skills and be able to interact efficiently in a team
8. Personal suitability is very important
9. 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 not be more than three years old at the last day of applying,

Placement: Division of Translational Cancer Research, Medicon Village, Lund University, Lund, Sweden
Ref No: V 2021/1189
Duration: 24 months
Starting time: preliminary September 1st, 2021 (can be discussed)
Last day for applying: May 20th, 2021

For further information please contact:
Daniel Bexell
daniel.bexell@med.lu.se

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 27 000 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 (June 27th 2013; Reg. No PE 2013/356).

**Application**
Application stating the reference number V 2021/1189 and containing a CV, a personal letter, proof of dissertation and relevant documents should be addressed to: daniel.bexell@med.lu.se.

**Last day of application is May 20th, 2021**