Postdoctoral Position (2 y 4 m) in the Gerold lab

The research group “Virus Interaction Proteomics” at the Institute for Experimental Virology, TWINCORE in Hannover, Germany, is recruiting a research associate (postdoc) on a 2-year 4 months position in virology to pursue a project aiming at elucidating and characterizing host factors associated with human noroviruses.

The position is part of the PRESENt (Paving the Way towards Personalized Prevention and Care of Severe Norovirus Gastroenteritis) consortium, which is funded by the Big Data Initiative of the State Government of Lower Saxony and the Volkswagen Foundation. Within the consortium, proteomic and microbiomic datasets of relevant patient cohorts will be acquired and processed using state-of-the-art big data approaches.

Research Topic

Our group focuses on the study of host factors interacting with human pathogenic viruses. We use state-of-the-art interaction proteomics methods in conjunction with virology and cell biology techniques to characterize host proteins bound by viral proteins and incorporated into virus particles.
The planned project focuses on human norovirus protein interactions. Norovirus gastroenteritis is a major public health concern and currently no therapy or licensed vaccine exists to treat or prevent infection. Specifically, the project aims at identifying and characterizing the role of host proteins associated with patient derived norovirus exosomes.

Your role

You will be responsible for carrying out research in the Gerold research group (www.twincore.de/gerold) in Germany and coordinate the scientific communication between the six PRESENt partners. You will learn and apply state-of-the-art high resolution proteomics and organoid culture methods. You will work closely with other researchers in the Gerold lab as well as with local (Hannover Braunschweig area) and international (USA and Sweden) collaboration partners.

Responsibilities

- Purify and characterize norovirus exosomes from patient samples.
- Prepare norovirus exosome samples for high resolution proteomics measurements.
- Perform statistical calculations downstream bioinformatic analyses.
- Communicate proteomics data to our computer scientist partners.
- Test purified norovirus samples in organoid culture systems for infectivity.
- Evaluate the efficacy of disinfectants towards patient derived norovirus.
- Test candidate proteins in primary cells by RNA interference and CRIPR/Cas9.
- Participate and contribute to scientific group meetings.
- Coordinate and participate in meetings of the PRESENt consortium.
- Contribute to the publication of research findings.
- Participate in training and supervision of technicians and students in the group.
- Comply with the University’s Equal Opportunities and Data Protection policies.

Selection criteria

Essential

- PhD in infection biology, biochemistry, molecular biology, or cell biology.
- Excellent written and oral English communication skills.
- Relevant experience in mammalian cell culture.

- Interest in protein biochemistry of virus-host interactions.
- Ability to work as part of a team as well as independently.
- Ability to deliver results to required standard and organize and prioritize own work.

Desirable

- Previous practical experience with sample preparation for mass spectrometry.
- Experience in MS data processing and R programming.
- Experience in virology.

Research environment

We are an international team based at the Institute for Experimental Virology, Twincore in Hannover, Germany and at Umeå University, Sweden. Our group has access to state-of-the-art equipment and techniques for cell culture work and mass spectrometry based proteomics. We offer an international, stimulating and collaborative research environment, in which your scientific career development is fostered.

Position summary

Full-time position for at least 2 years and 4 months with salary according to German TVöD.
Research stays at our international collaboration partners' labs at the NIH, USA and University of Gothenburg, Sweden are planned and you will be offered to participate in the TRAIN academy (http://www.translationsallianz.de/en).
MHH is committed to increasing the proportion of women among the scientific staff, therefore we strongly encourage women to apply.

Application

Please apply until Sept, 1st 2019 at
https://mhh.hr4you.org/application/applicantRegisterCvAnalyzerGenerator/upload/109

with the following documents:

1. Letter highlighting your qualification and motivation
2. CV including publication list
3. Copy of PhD certificate
4. Contact information of 2-3 references

For questions, please contact: Gisa Gerold, E-mail: gisa.gerold@twincore.de

See also:
https://twitter.com/GeroldLab
http://www.sfb900.de/en/projects/project-area-c/c7-gisa-gerold-thomas-von-hahn/
https://www.umu.se/en/staff/gisa-gerold/