

The research group “**Laboratory of Centrosome & Cytoskeleton Biology**” of Prof. Jay Gopalakrishnan, located at the Institute of Human Genetics of the University Hospital of Düsseldorf, is offering a position for an enthusiastic and motivated

Research associate/Postdoctoral fellow

The position is to be filled as soon as possible. Importantly, this position is suitable for scientists who want to build their own career and having a long-term perspective in centrosome, cilia and 3D human organoids research.

Research activity of the Laboratory of Centrosome & Cytoskeleton Biology is to identify how centrosomes and cilia regulate organism development and diseases. The laboratory is well known in the field and has a strong publication record (Journal and year). The laboratory also recently established human brain organoids as a powerful in vitro system to study centrosome and cilium in 3D human organoids (Journal and year).

The project is part of the collaborative research program determined to establish functional liver organoids from liver biopsy material and human induced pluripotent stem cells. These organoids will be the model systems to study how centrosomes can trigger tumorigenesis. In addition, the successful candidate is expected to closely interact with a renowned pharmaceutical company and clinicians. The laboratory is initiating a screening platform using cultured cancer cells and tumoroids in which the amplified centrosomes will be targeted by small molecule inhibitors (Refer Mariappan et al. EMBO Journal 2018).

The successful candidate will also be expected to co-ordinate interactions between the company and lab and be able to execute effective drug screening methods. Ultimately, the project will accomplish the generation of 3D liver organoids and use them as a routine test system in understanding how centrosomal abnormalities trigger tumorigenesis and how one can ameliorate this process.

For this position, we are looking for a fulltime research associate/postdoctoral fellow as soon as possible. The position is available for three years according to the law “Wissenschaftszeitvertragsgesetz” and salary will be according TV-L 13.

Your responsibilities:

- Practical performance of the above described project
- Establishment of 3D-organoids from liver biopsies (Liver tumor and normal liver tissue)
- Development and performance of readouts for functional testings
- Crispr/Cas9 knockout of liver-disease-relevant genes in humane iPS cells
- Studying centrosomes and primary cilia in 3D liver organoids by using fluorescence and high resolution microscopy
- Study the disease (cancer) mechanisms due to centrosome aberrations
- Targeting centrosomes for cancer therapeutics

Your profile:

- Excellent University degree in biology/biomedicine/biochemistry/cell biology or related fields
- Strong publication record
- Demonstrated record in doing biochemical experiments and microscopy. Biochemists at the interface of cell biology will be given preference.

- Solid knowledge about pluripotent stem cells, endodermal differentiation, physiology of the liver, liver diseases
- Advantageous: Experience in reprogramming to iPS cells
- Practical experience about the generation of organotypic cultures from fresh tissues
- Excellent molecular-biological knowledge
- Team spirit and enjoyment of working in a multidisciplinary team
- Willing to lead an independent research group within the next five years
- Strong interest in bridging basic science and cancers.

We offer:

- A position with individual development potential
- An interesting, versatile and challenging scope of task
- An enthusiastic interdisciplinary and international team
- Possibility for you to develop your scientific research and further develop your own independent scientific career
- Training in high-resolution microscopy, 3D-organoid cultures and more cutting-edge technologies
- Support for writing your own publications and grant applications

For further information please contact Prof. Jay Gopalakrishnan by phone (+49 211-81 11561) or by E-mail (jay.gopalakrishnan@hhu.de).

Important: Interested candidates should contact Prof. Jay Gopalakrishnan with a motivation letter. The motivation letter should speak more about science, specific aims and future focus.

To increase gender distribution in all job categories and at all levels, we strongly encourage applications from qualified women. Female applicants will be given preferential consideration when their level of qualification, competence and professional achievements equals that of male candidates, unless arguments based on the personal background of a male co-applicant prevail. Severely handicapped persons will be preferred for the same qualification set.

We kindly ask you to submit your complete application documents in **English**. Please send your comprehensive application documents (CV in tabular form incl. photograph, copies of certificates, motivation letter and 3 recommendation letters) **within 4 weeks** from the date of announcement.