2 PhD positions in clonal evolution of blood cancer

SFB 1243 Genetic and Epigenetic Evolution of Hematopoietic Neoplasms

Project A09, A14, A17 - Katharina Götze and Robert Oostendorp,
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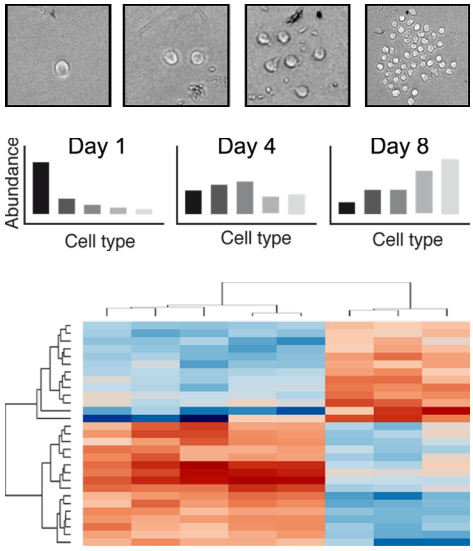
Myelodysplastic syndromes (MDS) are a heterogeneous group of clonal hematopoietic stem cell disorders, which are characterized by ineffective blood cell formation and a propensity for transformation to secondary acute myeloid leukemia (sAML). However, there is significant clonal as well as clinical heterogeneity and not all patients develop secondary AML. Thus, while gene mutations are prognostic, it is unclear which processes govern the transformation to AML. In addition, MDS cells have been shown to be highly dependent on the bone marrow microenvironment (niche) for survival. Here, we are interested in determining the factors that drive the transition from MDS to AML. This project will include clonal analyses using cellular and genetic models, gene expression studies and bioinformatic analyses (together with the Enard/ Hellman Lab, A14, A15), as well as mathematical modeling (together with the Theis/ Fuchs/ Marr Lab, A17).



Your Responsibilities

- Isolate rare cell populations from MDS and sAML patient samples
- Optimize genetic alterations of niche cells using state-of-the art genetic technologies
- Perform cellular, genomic and bioinformatic analyses (with the Enard/Hellman Lab (A14, A15)
- Perform clonal assays and mathematical modeling with the Theis/ Fuchs/ Marr Lab (A17)

Your Opportunities

- A highly innovative and challenging project at the interface between molecular cell biology, genomics, bioinformatics, and clinical medicine.
- We offer a strong interdisciplinary environment for state-of-the-art biological techniques, genomic technologies, and translational research within the groups of the Collaborative Research Centre (SFB) 1243.
- You will be part of the Integrated Research Training Group (IRTG), a structured graduate program committed to providing an excellent all-round graduate education.

Your profile

- Candidates should hold a diploma or a master's degree in biology, molecular biomedicine, biotechnology, or a related subject.
- You are highly motivated, team-oriented graduate, capable of independent working with a strong background in molecular biology.
- Experience in scripting, statistical analyses and/or genomic analyses is advantageous.

Online applications are now being accepted until **February 21, 2016**. Please apply solely via **http://portal.graduatecenter-lmu.de/ocgc/sfb1243**. Choose **A09** as priority.

The position should start as soon as possible and is for a period of 3-4 years. The LMU is an equal opportunity employer. Preference will be given to suitably qualified female applicants or handicapped people, all other considerations being equal.