JULIUS-MAXIMILIANS-UNIVERSITÄT WÜRZBURG, GERMANY

Institute for Molecular Infection Biology (IMIB)

PhD Student position (f/m/d)

"Regulation of early spliceosome assembly and splice site recognition"

Applications are invited for a PhD student position in the Beusch group at the Institute of Molecular Infection Biology at the University of Würzburg. Successful candidates will work in an interdisciplinary project aiming at understanding the initial steps in RNA splicing regulation and spliceosome assembly.

Splicing is an essential step in post-transcriptional processing. Mutations that disrupt splicing have often deleterious consequences, causing a wide range of diseases from neuromuscular disorders to cancer. Our research group's goal is to gain a detailed mechanistic understanding of splicing and its regulation within the cell to not only understand fundamental eukaryotic biology but also human disease. In particular, we focus on understanding how splice site choice occurs and how this interplays with the assembly of the spliceosome. The spliceosome is a highly complex molecular machine, which will assemble *de novo* from over 150 proteins and 4 small nuclear RNAs for each reaction that it catalyses. What fascinates us is not only how this assembly is regulated but how the spliceosome can handle its very diverse substrate pool. To do so, we use forward genetics (CRISPR-Cas9 base editing screens, CRISPR-Cas9 genome engineering) in combination with a wide range of technologies including RNA-seq approaches as well as molecular biology methods (e.g. proximity labelling, IP-MS) and biochemistry.

Qualifications:

- A Master's degree in life science and a strong background in either RNA biology or biochemistry.
- Experience in molecular biology, tissue culture and cell line engineering, RNA-seq data analysis, and bioinformatics is welcome.
- Good written and spoken English-language communication skills, and interest in working as part of an international team of researchers.
- An interest in RNA biology, or desire to learn.

We welcome applications from suitably qualified people from all sections of the community regardless of race, gender or disability. The University aims to increase the proportion of female employees, therefore applications from qualified women are particularly welcome. Preference will be given to people with disabilities in the case of otherwise equal aptitude. The position is initially limited to 1 year with the possibility of extension upon good progress. Salary will be based on the pay scale for the public sector in Germany (TV-L).
For informal inquiries, please feel free to contact Dr. Irene Beusch (irene.beusch@uni-wuerzburg.de).

Applying:
Please send your application as a **single PDF file** (including a letter of motivation, curriculum vitae with research experience, and contact information for two academic references) **by**

October 15th, 2024 via email to irene.beusch@uni-wuerzburg.de (Subject: PhD position AG Beusch)

More information about Dr. Beusch: www.beuschlab.org
We are looking forward to your application!