

PhD position available

The Hengesbach lab looking for keen, motivated students for a newly established project within the SFB "RMaP" (<https://www.trr319-rmap.de/>), starting as of September 1st 2023.

About our group:

We are interested in the way RNA and RNA-protein complexes move and bind their interaction partners in order to exert their intended function. Our main focus area are RNA modifications, which act as an additional layer of regulation to the vast amount of functions RNAs can exert in cells. We investigate how cells achieve site-specific and efficient RNA modification, which is a prerequisite for cellular development, as well as ribosome and spliceosome biogenesis. In general, **structural dynamics of RNAs and RNPs** are at the heart of our projects. Our group just recently moved to JGU Mainz, and is now joining the SFB RMaP.

About the project:

Eukaryotic RNAs are heavily modified, and many modifications are introduced in a sequence-specific fashion. H/ACA RNPs use snoRNAs to identify and target the RNA that is going to be modified. This process relies on the correct assembly of the complex, and productive binding of the target RNAs. We use a combination of biochemical and biophysical tools to investigate how H/ACA complexes achieve correct assembly and reliable recruitment of their target RNAs. For this, we use a combination of modern biochemical and analytical (isotope labeling, LC/MS, etc.) and biophysical tools (i.e. single molecule FRET spectroscopy).

Previous project publications:

Trucks et al, 2021, Nucleic Acids Research: [Link](#)

Schmidt et al, 2020, RNA Biology: [Link](#)

What we offer:

Students will receive in-depth training in: RNA and protein biochemistry, chemical biology, single molecule spectroscopy, and corresponding data analysis. PhD students will be compensated according to TV-L. They will be part of the Graduate School YouRMaP, which offers additional supervision as well as complementary soft-skill courses. With several collaborations within RMaP and beyond, you will become part of a variety of other highly relevant and interesting projects. There will be ample opportunity for scientific networking, conference participation, etc.

What we expect

Students with (or close to) a qualifying degree (M.Sc. or equivalent) from all areas of life sciences (i.e. (Bio-)Chemistry, Pharmacy, Molecular Biosciences, etc) are welcome to apply. Previous experience with molecular biology, in particular RNA, would be a plus. Solid command of either English or German is a must.

Interested?

For further information or to apply, please contact
Dr. Martin Hengesbach (hengesbach@uni-mainz.de).

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