## 10 International PhD Positions in Protein Design for Synthetic Biology and Bioanalysis

These positions are provided by RNAct, a European Innovative Training Network project. The interdisciplinary research aim of RNAct is the design of novel RNA recognition motif (RRM) proteins for exploitation in synthetic



biology and bio-analytics. This includes computational approaches at the sequence and structure levels of proteins and RNA, largescale phage display experiments with RNA screening, integrative structural biology approaches, implementation of RRMs in synthetic biology, and bio-analytics to detect RNA in-cell and design RNA biochips.

RNAct is a collaborative project between 7 teams in 6 countries, from both academia and biotech industry, that will offer a comprehensive and cross-disciplinary structured curriculum for doctoral students. 10 doctoral thesis fellowships (for ESRs, Early-Stage Researchers) are available in the areas of structural bioinformatics, structural biology using NMR and crystallography, synthetic biology and bio-analytics.

Eligible applicants must hold a Masters degree of Science (MSc) in the field of chemistry, biochemistry, physical, life sciences or computational sciences as requested in the respective job description. They must not have stayed in the country of the host lab for more than 1 year during the last 3 years, and be in the first four years (full-time equivalent) of their research careers. Do not apply if you already hold a Ph.D.

Further information: http://rnact.eu

Contact and information: info@rnact.eu

Applications must be submitted online at https://tinyurl.com/rnact-eu

Offer starting date: 1/9/2019

## **Deadline for applications: 31/3/2019**

ESR1: Predicting biophysical characteristics of proteins from their amino acid sequence (Computational, VUB, Brussels, Belgium)

ESR2: Improving the in-silico structure representation of proteins (Computational, VUB, Brussels, Belgium) ESR3: Collect, integrate and analyse RRM data (Computational, CNRS, Nancy, France)

ESR4: Improve methods to dock RNA with proteins (Computational, CNRS, Nancy, France)

ESR5: Structure calculation and computational design of RRMs (Computational/Experimental, HMGU, Munich, Germany)

ESR6: Structural biology (NMR, X-ray crystallography) and biophysical techniques of designed RRMs (Experimental, HMGU, Munich, Germany)

ESR7: Analyse RRM dynamics via structural biology (NMR) and biophysical techniques

(Experimental, Giotto Biotech, Florence, Italy)

ESR8: Integrate RRMs in prokaryotes to create new pathways in synthetic biology (Experimental, CSIC, Valencia, Spain)

ESR9: Create biochips to study RRM/RNA interactions. (Experimental, Dynamic Biosensors, Munich, Germany)

ESR10: Deploy RRMs for in-cell analytics (Experimental, Ridgeview Instruments, Uppsala, Sweden)