

PhD-student position: Deploy RNA Recognition Motifs for in-cell analytics

Published: 11 January 2019

Starting date: September 1, 2019 or as agreed upon.
Duration: 4 years
Location: Ridgeview Instruments AB, Uppsala, Sweden
Supervisor: Jos Buijs
Thesis promotor: [Helena Danielson](#)

Hosting organization: Ridgeview Instruments AB, established 2005, is a biotech company that develops and provides LigandTracer[®] technology for time-resolved interaction analysis with living cells. Based in Uppsala, Sweden, we are pioneering molecular characterization in cancer research and are now looking to expand our efforts into the field of synthetic biology. Read more about us at www.ridgeview.eu. During the project you will work closely together with the Department of Biochemistry at Uppsala University. Additional cooperation with a variety of universities and companies in Belgium, France, Germany, Spain, and Italy is part of the project as well as a 3-month secondment at the VUB (Brussels, Belgium).

Project: The PhD project is part of a multi-disciplinary European ITN project called [RNAct](#), involving 8 inter-connected PhD projects in computational and experimental molecular biology, biophysics and system biology. The overall goal is to modulate RNA binding proteins (RNA Recognition Motifs (RRM)) to become triggers for desired functions applied in synthetic biology and bio-analytics.

Our PhD project focuses on synthetic biology, i.e. living systems (bacterium) where non-natural behavior has been introduced. The ability of RRMs to recognize ranges of RNA will be evaluated using both direct and indirect time-resolved methods. The PhD work includes method development to use LigandTracer with bacterial cells for monitoring and quantifying induced behavior and applying developed methods on molecular targets that are developed within the RNAct consortium. During the secondment at the VUB, the applicant will be trained in advanced machine learning approaches on experimental in-cell interaction data.

Position: The applicant must hold a University degree (Master level) in natural sciences, engineering or similar, with a focus on cell biology or biochemistry or other relevant subjects. In ranking eligible candidates, special importance will be given to scientific skills in relation to the subject area specified. Special weight will be given to earlier experience in (a) culturing and transfection of bacteria, and (b) molecular interaction analysis. Strong motivation, willingness to cooperate with the RNAct partners and to travel within the EU, the capacity to work independently, and desire to network and communicate are important qualities. The applicant must be proficient in spoken and written English. In filling this position, Ridgeview aims to

recruit the person who, in the combined evaluation of competence, skills and documented qualifications, is judged most suitable to carry out the project and to contribute to a positive development of the company.

Eligibility: EU/ITN positions are subject to strict eligibility rules as detailed in the [RNAct application](#) website. More information about postgraduate studies at the host university Uppsala University is available at [PhD studies at Uppsala University](#). For applicants from outside the Nordic countries, minimum levels on a TOEFL language test (or similar) applies: [Internationally-recognized-English-test](#). Rules governing PhD candidates are set out in the Higher Education Ordinance Chapter 5, §§ 1-7.

How to apply: should be sent on the RNAct centralized application web site: [RNAct application](#) (project ESR10). The application should be written in English and include a short description of how previous experience fit into the subject area. It should also include a CV, copies of relevant examination certificates, and contact information (name, phone, email) for at least two reference persons. In case letters of recommendation are available they can be attached. Applications longer than 8 pages in total will not be read.

More information about the position can be obtained from Dr Jos Buijs (jos@ridgeview.eu).

You are welcome to submit your application no later than March 15, 2019.