

Within the Membrane Enzymology group and Centre for Synthetic Biology of the University of Groningen, **two PhD positions** are available in the context of a European Marie Curie Initial Training Network, entitled 'Network for Integrated Cellular Homeostasis' (NICHE).

The network is composed of nine groups from the Netherlands, United Kingdom, Germany and Spain. Our team is multidisciplinary, incorporating microbial physiology, chemistry, molecular biology and protein biophysics, advanced spectroscopy and microscopy, deep-sequencing technologies and *ab initio* modeling. The aim of the program is to advance our understanding of the homeostatic mechanisms of bacteria *via* predictive modeling and state-of-the-art experimental approaches. The focus of NICHE is on ion homeostasis in *Escherichia coli*, which includes cell physiology, membrane biology and ultrastructural analyses of the cells under ionic and osmotic stress conditions. **PhD1 will focus on the structure and dynamics of the cytoplasm, whereas PhD2 will analyze the structure and dynamics of the *E. coli* membranes.** Biochemical methods combined with advanced microscopic approaches, incl. confocal imaging, FRAP, FCS and super-resolution microscopy, will be used to uncover the mechanisms underlying ion homeostasis.

We are seeking excellent students who can work in a multidisciplinary environment and are willing to spend one or more periods of their PhD in the laboratories of our collaborators. The candidates should have a background in biochemistry/biophysical chemistry, preferably in combination with molecular biology. Each of the PhD positions is for a period of 4 years.

For further information, please contact Prof. Bert Poolman (b.poolman@rug.nl). For information on our group and scientific environment, please visit www.rug.nl/gbb/enzymology and www.rug.nl/centreforsyntheticbiology.