



CASE WESTERN RESERVE
UNIVERSITY
SCHOOL OF MEDICINE

Postdoctoral Position to study Alzheimer Protein-Receptor Interactions using solution NMR with opportunity to train in cryo-EM or computational biophysics

Buck Lab. at Case Western Reserve Univ. Medical School, Cleveland, Ohio, USA

We are looking to add 1-2 postdoctoral co-worker(s) to our interdisciplinary team as new NIH funding has come to our laboratory for the investigation of a transmembrane receptor in its interaction with certain kinases and other Alzheimer's associated proteins. Our interest is to understand these protein-protein interactions at the protein biophysics, biochemical, structural and protein dynamics level. These are high risk/high impact projects and several other "more down to earth" projects involving an IDP, peripheral membrane protein and work on beta-lactamases are also available in the lab./to be worked on concurrently.

We principally use solution NMR, not so much for protein structure determination, but more for protein surface and interaction site mapping and for the characterization of protein dynamics and conformational, if not configurational change. The projects will also likely involve hydrogen-deuterium exchange on a dedicated Waters mass spectrometer and employ NMR methyl relaxation and molecular dynamics simulation as additional tools. The North East Ohio High Field NMR facility consists of a 600 MHz, 700 MHz, 800 MHz and a 900 MHz Bruker spectrometers. With the recent installation of a Titan Krios at Case Western Reserve University there is also considerable interest to apply cryo-EM to our systems and a postdoc will be able to learn from our local collaborator and facility manager and will be a driving force in our (inter-)national collaborations.

We are looking for talented and highly motivated coworker, who aims to become an independent researcher/project leader (> ½ of the previous postdocs accomplished this goal). Prior experience with protein NMR is highly desirable. The Buck laboratory provides a stimulating but friendly working environment. The Medical School of Case Western Reserve University is highly rated overall in the US (~ 16th. in terms of NIH funding) and Cleveland is a pleasant but affordable place to live with excellent educational, medical and cultural institutions. The starting date is as soon as possible but this project details and salary are negotiable. Please send your resume, overview of your scientific interests and career goals as well as contact details of three referees able to provide references by e-mail to matthias.buck@case.edu