Postdoc Positions

Protein Engineering, Origin of Life, Genetic Code, Artificial Enzyme Evolution

We are using \textit{in vitro} and \textit{in vivo} selections to create \textit{de novo} proteins from large libraries of randomized polypeptides. We are also employing directed evolution to tailor existing enzymes to a variety of biomedical applications. An overarching theme of the work in our group is the use of combinatorial protein libraries to investigate the origin and evolution of functional proteins.

- One objective of our research is to create designer enzymes for biomedical applications. We are also studying our new enzymes in detail and evolve them further to improve performance, and elucidate basic principles of biocatalysis and protein evolution.

- Another objective of our work is to tackle fundamental questions related to the origin of life. Specifically, we are investigating the history and early evolution of the genetic code, and the origin of functional proteins in general.

The applicant should have a Ph.D., expertise in molecular biology and biochemistry, a strong publication record, excellent communication skills, and enthusiasm and motivation for science in a collaborative environment. Experience with compartmentalized selections (IVC) is a plus.

Please send a letter that specifically details why you would want to work with us and how your scientific interests and research experience could fit with our team. Send a document containing this letter, together with your CV, list of publications and the names of three references to Burckhard Seelig (seelig@umn.edu). Positions are available immediately.

Our lab is part of the interdisciplinary BioTechnology Institute at the University of Minnesota - one of the largest research universities in the US. We are located in the heart of the vibrant Minneapolis-Saint Paul area, home to 3.4 Million people and urban center of the ‘Land of Ten Thousand Lakes’.

Further information: http://cbs.umn.edu/seelig-lab/home