POSTDOCTORAL POSITION AVAILABLE STRUCTURAL BIOLOGY OF CAAX PROCESSING LABORATORY OF MICHAEL WIENER

The Wiener Laboratory in the Department of Molecular Physiology and Biological Physics at the University of Virginia seeks a Research Associate. The successful candidate will perform research in the field of membrane protein structural biology. This position is focused upon a mechanistic understanding of the enzymes involved in the CaaX post-translational processing pathway. In particular, the Wiener laboratory determined the novel structure of the CaaX protease Ste24p (Science 339: 1600 [2013], 4IL3), proposed a processive endoproteolytic mechanism of function, and is now pursuing detailed structure-function studies of both yeast and human enzymes. Mutations in Ste24p can give rise to a spectrum of accelerated aging disorders (progerias), and mutations in Ste24p are implicated in off-target side effects of some AIDS drugs. Also, the enzymes in the CaaX processing pathway are targets for cancer drug development.

The job duties for the incumbent will include extensive crystallography experiments and functional studies of the enzyme. Opportunities to perform molecular dynamics simulations and to conduct electron microscopy studies are also possible. The incumbent will also have some supervisory and training responsibilities. This is a superb opportunity for an individual, experienced in crystallography, to obtain training in all aspects of integral membrane protein structural biology, via focus upon the structural enzymology of a highly medically-relevant eukaryotic membrane protein for which the initial structure has already been determined. Possibilities for determination of structures of other enzymes in the pathway also exist. The highly motivated candidate must have an M.D. and/or a Ph.D. in Biochemistry, Molecular Biology, Biophysics, or a related field in hand by the start date and must have at least one first-author publication in a peer-reviewed journal. Experience with macromolecular crystallography, specifically, the ability to independently perform synchrotron data collection, data reduction, crystallographic structure determination and refinement, is absolutely required. Experience with computer system administration is highly desirable. Experience in cloning and protein expression and purification, particularly of integral membrane proteins, would be helpful, but is not required. The ability to work independently yet to interact well with a diverse group of scientists, students and staff is essential. The University of Virginia is a superb environment for the study of membrane proteins, with a regular series of topical seminars and more than twenty independent investigators in the Center for Membrane Biology.

To apply, visit https://jobs.virginia.edu and search for Posting Number 0617023. Complete a Candidate Profile on-line, attach curriculum vitae, cover letter and contact information for three references. Applicant review will begin August 17, 2015, and the position will remain open until filled.

Questions regarding this position should be directed to:

Dr. Michael Wiener

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The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans and persons with disabilities are encouraged to apply.