Horizon Postdoctoral Fellowship available in the Centre for Research in Molecular Modeling, Concordia University

Modeling Comparative Enzyme Inhibition

The Centre for Research in Molecular Modeling (CERMM) at Concordia University, Montreal, Canada, has a prestigious Horizon Postdoctoral Fellowship opening. The postdoctoral researcher will work under the joint supervision of Profs. Peslherbe and English on multi-scale modeling of NO donor interactions with glyceraldehyde-3-phosphate dehydrogenase (GAPDH), a central glycolytic enzyme, and a key target in parasites that rely on glycolysis for their energy supply. The research involves docking, large-scale molecular dynamics simulations and quantum mechanical / molecular mechanical calculations to establish a new mechanistic model for GAPDH inhibition and demonstrate the power of a comparative computational approach in probing biochemical function and drug design. The computational work will complement experimental mechanistic studies of GAPDH inhibition in the English lab.

Applicants should hold a PhD in chemistry, biochemistry or biophysics with experience in computer simulations and quantum chemistry, and possess a solid track record of research accomplishments. Expertise with molecular dynamics software packages is highly desirable and knowledge of biological mass spectrometry would be an asset. Excellent communication and analytical skills are required. Ability to work independently and in an interdisciplinary collaborative environment is expected.

The prestigious Horizon Postdoctoral Fellowships are valued at CDN$ 47,500 (+ benefits) per year and provide full access to Concordia services. They are normally held for a two-year term, subject to available funding and satisfactory performance evaluation. For more information, consult the Horizon Postdoctoral Fellowship at: http://www.concordia.ca/research/students-and-postdocs/postdoctoral-fellows/horizon-postdoctoral-fellowships/open-positions.html.

Applications should consist of i) a one to three (1-3) page research statement demonstrating the fit with the research program outlined above; ii) a current curriculum vitae demonstrating research excellence and a capacity for leadership in the domain (maximum 5 pages); and iii) two letters of reference from academic supervisors or current employers to be sent via e-mail directly to Horizon.Postdocs@concordia.ca.

Application deadline: open until the position is filled but no later than April 1, 2017 (subject to change). Fellowship start date: no later than July 1, 2017 (subject to change).

Interested candidates are encouraged to send questions and inquiries to Profs. Gilles Peslherbe (gilles.peslherbe@concordia.ca) or Ann English (ann.english@concordia.ca) but should apply directly to the Horizon Postdoctoral Fellowships program at Horizon.Postdocs@concordia.ca. Please use the Horizon Postdocs reference number 2010 in all correspondence.