POSTDOC POSITIONS IN DIRECTED EVOLUTION AND PROTEIN ENGINEERING FOR ENZYMES

Field of study: Biochemical engineering and molecular biology

Key words: Directed protein evolution, enzymes, antibodies, flow cytometry, microfluidic devices, high-throughput screening, emulsion technology, enzymatic assays, display technologies

Area of research

We are looking for highly motivated researcher to join Molecular Evolution, Protein Engineering and Production lab and work on cutting edge projects in the innovating field of directed evolution.

The successful candidate will work during his post-doctoral studies on advancing the directed evolution of enzymes and display technologies and developing high-throughput screening systems based on flow cytometry, microfluidic devices, mass spectrometry and selection systems.

Your tasks

The successful candidate will work on developing mutant libraries starting from different genes by various molecular evolution techniques using random, semi-rational or completely rational approaches. He/she will have to optimize the expression systems by using either in vivo or in vitro systems and optimize the flow cytometry high throughput screening systems for gene libraries. In additions she/he will on the development and advancement of microfluidic screening platforms. Finally, he/she will have to screen the libraries and characterize the improved mutants.

Your requirements
The candidate should hold a PhD in biochemistry, molecular biology or a related field. She/he should be familiar with standard molecular biology and cell biology techniques. He/She should have a good understanding and expertise in protein expression, purification and biochemical characterization. Hands on experience with flow cytometry and/or microfluidic devices would be a plus.

Applications

Please submit a cover letter that describes your interests and fit with the position, CV and contact information of three references.

Questions can be directed to Dr. Raluca Ostafe (rostafe@purdue.edu).

Start date is as soon as possible

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply. A background check will be required for employment in this position.

Postdoctoral Position Related to Protein-Lipid Interactions

A postdoctoral fellow position is open at Purdue University (West Lafayette, IN) to work on regulation of lipid-protein binding. The successful candidate will have the opportunity to be mentored in biochemistry as well as in clinically relevant translational science. This cross-disciplinary work will span from basic biochemistry/biophysics to health science related to type 2 diabetes. The postdoc will be co-mentored by Dr. Rob Stahelin (Medicinal Chemistry and Molecular Pharmacology) and Dr. Greg Henderson (Nutrition Science). The focus of the NIH-funded project is upon developing an understanding of the regulation of fatty acid binding to albumin. Our interdisciplinary research team at Purdue performs in vitro and animal model research related to lipids, their binding to protein, and the health implications of this binding. Our goal is to ultimately identify approaches for preventing or treating type 2 diabetes. The selected candidate will have opportunities to be exposed to a broad spectrum of research techniques from biophysical studies, biochemistry, and physiology work on mouse models. The candidate would bring experience in performing protein-ligand binding studies and then apply this background to the area of metabolic health research.

A PhD in biochemistry, molecular biology, or related field is required. Understanding of surface plasmon resonance (SPR), isothermal calorimetry (ITC) and other related protein-ligand binding assessment methods is preferred. Applications will be reviewed as received, and the start date could be as soon as the right candidate is available to begin the appointment.

Interested applicants should submit a brief cover letter, CV, and contact information of 3 references by email to rstaheli@purdue.edu

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There is a technician/lab manager position available in the new Metskas Lab in Purdue's Biological Sciences department! Our group uses a combination of fluorescence and cryo electron tomography methods to study protein ultrastructure in viruses and bacterial microcompartments. The technician/lab manager will assist in daily management of the lab, and perform research according to their level of experience and time in the group.

Applicants should have a Bachelors or higher degree in the life sciences or an associated field, with strong, basic molecular biology skills. Additional qualifications are very welcome but not required. Being a good team member is essential, as is willingness to learn new skills relevant to the group's work. Interested applicants are encouraged to contact Dr. Metskas for more information, and/or to submit a brief cover letter, CV or resume highlighting laboratory experience, and contact information for 3 references to her at metskas@purdue.edu.

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Structural Virology Postdoctoral Opening with Dr. Richard Kuhn

The Kuhn laboratory at Purdue University looks to further advance the structural information available for various targeted viruses. Skills in molecular biology, virology, structural biology, crystallography and electron microscopy are used by his group to provide advanced structural information for specific RNA viruses. Typically these include positive-sense, single-stranded viruses from the families Picornaviridae and Flaviviridae but specific projects can sometimes extend beyond these boundaries. Individual assignments for the successful applicant will be determined based on applicant experience and in direct consultation with Dr. Kuhn.

Dr. Kuhn is looking for qualified Ph.D. applicants willing to work full-time on his NIH-funded research projects. Candidates should have a strong background in structural biology as well as be proficient in molecular biology, virology, or a related field of study. Candidates should expect to have both individual and team responsibilities to meet in a timely and efficient manner. Typically this focuses on independently performing experiments within appropriate biosafety guidelines, recording & interpreting data and reporting results. Applicants should also be self-motivated, able to provide oral and written results in reasonably proficient English, and willing to participate in further career development activities such as professional meetings and conferences, seminar presentations, etc.

Interested individuals should submit the following documents, preferably as one pdf file, to Dr. Richard Kuhn (kuhnr@purdue.edu):

- Cover letter
- Curriculum Vitae
- The names and contact information of three references.
Salary is to be commensurate with relative education and/or experience and usual Purdue University benefits (such as health insurance options, paid holidays and vacations, sick leave, etc.) will apply. Purdue University is an equal opportunity, affirmative action employer.

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Post-doctoral Research Associate
Immunology and Vaccine Development

Applications are invited for a Post-doctoral Research Associate position in Dr. Harm HogenEsch's laboratory in the Department of Comparative Pathobiology at Purdue University. The research is aimed at developing and evaluating the effectiveness of novel TLR2 agonists as vaccine adjuvants using cell culture and mouse studies.

We provide:

- Salary and health insurance benefits
- An intellectually stimulating, diverse and supportive research environment
- Opportunity to collaborate across disciplines

The successful candidate:

- Has a Ph.D. in immunology or related field
- Is self-motivated and a team player
- Expertise with flow cytometry, ELISA, cell culture, and molecular biology techniques is preferred.

Interested individuals should submit the following documents, preferably as one pdf file, to Dr. Harm HogenEsch (hogenesc@purdue.edu):

- Cover letter
- Curriculum Vitae
- The names and contact information of three references.

The Department of Comparative Pathobiology is located on the West Lafayette campus of Purdue University, which is home to more than 10,000 graduate students and post-docs. Purdue University is a public land grant university and a tier 1 research institution. West Lafayette is a thriving and diverse community with excellent schools, located one hour north of Indianapolis and two hours south of Chicago.

Purdue University College of Veterinary Medicine values, nurtures, and respects all members of its community and ensures an environment of inclusive excellence where all students, faculty, and staff are inspired and empowered to achieve their full potential. In order to be better informed about issues of climate, diversity and inclusion, Purdue University and Purdue Veterinary Medicine provide the opportunity for all its faculty and staff to participate in various diversity-training activities.
Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.