Employment Opportunities

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- **Lab manager and research technician**
- **Drug discovery exploring adenylyl cyclases as novel drug targets**
- **Small molecule modulation of GPCRs**

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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 POSITIONS IN BIOMATERIALS

Three Positions Immediately Available

- Cartilage Tissue Engineering: Investigate material properties that promote new cartilage formation and protect cartilage matrix from degradation in an inflamed environment. Experiments include but are not limited to materials development and characterization (e.g., rheology, SEM), stem cell culture, cell assays (e.g., qPCR, immunohistochemistry, ELISA, etc.), and potentially animal studies.
- In Vitro Tissue Model for Drug: In collaboration with industry, develop models of human tissue for drug screening. Activities include but are not limited to materials development and characterization, cell culture, and determining drug interactions with in vitro tissue.
- Oyster Adhesive Mimics: Identify and produce oyster cement proteins to establish structure-function relationships of new inorganic adhesive. Techniques include but are not limited to proteomics, DNA cloning, recombinant protein expression and purification, lap shear adhesive testing, and cell culture.

Qualifications

- Required: PhD degree in chemical engineering, biomedical engineering, materials science engineering, or related degree
- Successful candidate: Proactive learner who works well independently and as part of a team, has excellent written and oral communication skills, and has a strong publication record.

To Apply

E-mail Dr. Julie C. Liu (julieliu@purdue.edu) and include:
- Cover letter that includes: preferred start date, concise summary of how the candidate’s prior research accomplishments and career goals align with and can contribute to the desired position
- Curriculum Vitae (list the DOI for all publications)
- Contact information for at least 3 references

The Jeong/Lee Lab in the Department of Industrial and Physical Pharmacy at Purdue University College of Pharmacy is recruiting a postdoc and a research technician to join our research team. Jeong/Lee lab has been investigating the gut microbiota as (1) a drug-metabolizing organ and (2)
a modulator of host response to drugs. Intestines harbor trillions of microbes that have evolved in
the milieu of a diverse diet-derived small molecules. Gut microbiome (the collection of genetic
materials harbored by the gut microbes) contains thousands of distinct genes with an enormous
capacity to catalyze chemical reactions. Their functions, however, remains largely unknown.
Based on the expertise of Dr Jeong (a pharmacologist) and Dr Lee (a microbiologist), we identify
and characterize the microbial factors involved in drug metabolism as well as host-microbe
interaction that leads to altered drug efficacy and toxicity. See

Postdoc position: Applicants should have Ph.D. or M.D. training and prior experience in bacterial
and mammalian cell culture, basic molecular biology (western blotting and quantitative PCR), and
mammalian cell culture. The applicant should demonstrate a solid understanding of cell biology
concepts and a publication track record. Prior experience in rodent handling, especially with drug
administration into mice (e.g., oral gavage, iv/ip injection), is desirable. Successful candidates will
be expected to work independently and contribute to writing peer-reviewed manuscripts and grant
applications. For application, please send CV and three names of references to Dr. Young Jeong,
youngjeong@purdue.edu.

Research technician: Applicants should have B.S. or M.S. training and a minimum 3 years of
research experience in biology (preferably in microbiology). Candidate must have a
comprehensive knowledge of research principles, concepts, practices, and methods and be
proficient in using basic lab equipment. Candidates must have a basic competence with
commonly used computer software programs (e.g., Word, Excel, Prism, Adobe, etc.). For
application, please send CV and three names of references to Dr. Young Jeong,
youngjeong@purdue.edu.

Post-doctoral Position for Crystallographer to Support Drug Discovery Research

The laboratory of Dr. Daniel Flaherty in the Department of Medicinal Chemistry and Molecular
Pharmacology at Purdue University is seeking a post-doctoral research associate in the field of
protein X-ray crystallography to support drug discovery efforts against a novel antibacterial target
of interest in our laboratory. Required degree/skills: PhD (or expected PhD) with experience in
protein crystallography and biophysical techniques with a proven track record of successfully
solving ligand-bound crystal structures. Required experience includes designing plasmids,
cloning, mutagenesis, protein preparation, protein purification, and a strong background in
utilizing PHENIX and COOT or other comparable software for structure determination. Desired
Skills: Experience designing and executing biochemical assays for quantifying protein interactions
with small molecules, such as with surface plasmon resonance (SPR) or isothermal titration
calorimetry (ITC). Experience working with bacteria including E. faecium, E. faecalis, N. gonorrhoeae and M. smegmatis is a plus.

The candidate would have access to world-class facilities and instrumentation to support their work (crystallization drop-setting robots, screen optimization robots, plate imaging robots/hotel, walk-in plate incubator rooms, and rotating-anode home X-ray sources) within the Crystallography Core located in the Hockmeyer Hall of Structural Biology. Synchrotron data collection is also a 2-hour drive from our laboratory at the Advanced Photon Source (APS) at Argonne National Laboratory with remote data collection capabilities. Other responsibilities include managing data collection time/trips, maintaining a laboratory notebook, assisting graduate students in crystallography, and manuscript preparation. This position is funded by a grant from the National Institutes of Health in search of novel inhibitors for a new antibacterial target. The position offers a competitive salary commensurate upon experience plus benefits and is contingent upon meeting progress milestones. The successful applicant will be assessed for productivity on a bi-annual basis with the option of yearly renewal if agreed upon by both parties.

Interested candidates should submit a cover letter, CV and at least 3 references that are familiar with the candidate’s experience and research potential to https://careers.purdue.edu/job/West-Lafayette-Post-Doc-Research-Associate-IN-47906/814628700/?locale=en_US. The position is open immediately, however, start date is flexible and negotiable depending on the availability of the candidate. For more information please visit https://www.flahertylab.com/positions

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Postdoctoral Opening in Computational Study of Tyrosine Kinases

Research area: A postdoctoral associate position is available to conduct computational and theoretical studies exploring conformational equilibrium of protein tyrosine kinases. The successful candidate will develop and apply computer simulation methods to explore conformational transitions and landscapes of multidomain proteins, substrate and inhibitor interactions of tyrosine kinases, and the physical basis for regulation of protein interactions by phosphorylation to gain molecular-level understanding of cellular function. Development of novel approaches to define and characterize flexible ligand interactions is another objective of the research. The research is in close collaboration with cell biologists and chemical biologists, with potential for drug discovery in infectious disease or cancer.

Highly motivated Ph.D. researchers should submit their applications to Dr. Carol Post. Applicants are anticipated to have a strong background in computational methods and physical understanding of molecules. A proficiency in molecular dynamics simulation methods is desired. Applicants should be self-motivated, able to work in a team environment, and be reasonably skilled in oral and written scientific presentations in English.

Applicants should submit the following documents to Dr. Post (cbp@purdue.edu):

- Cover letter briefly describing research experience
- Curriculum vitae
- Contact information for three references
Salary and Purdue University benefits (health insurance, vacation days, sick leave, etc) will apply. Purdue University is an equal opportunity, affirmative action employer. All members of the Post lab are expected to value diversity and inclusion, and will be treated with respect and provided the opportunity to achieve their full potential toward career development.

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Postdoctoral Opening in High-resolution NMR of Tyrosine Kinases

Research area: A postdoctoral associate position is available to conduct structural studies on non-receptor protein tyrosine kinases and their complexes with substrates and inhibitors using high-resolution NMR spectroscopy and other biophysical methods. The research will address central questions about substrate recognition and regulation by phosphorylation of kinase-protein interactions. Structure and conformational dynamics will be characterized from multidimensional NMR spectroscopy to aid inhibitor design and the molecular basis of cellular function. The research is in close collaboration with cell biologists and chemical biologists, with potential for drug discovery in infectious disease or cancer.

Highly motivated Ph.D. researchers should submit their applications to Dr. Carol Post. Applicants are anticipated to have a strong background in biological NMR spectroscopy and general biophysical understanding of macromolecules. A proficiency in biochemistry and protein expression and purification is desired. Applicants should be self-motivated, able to work in a team environment, and be reasonably skilled in oral and written scientific presentations in English.

Applicants should submit the following documents to Dr. Post (cbp@purdue.edu):

- Cover letter briefly describing research experience
- Curriculum vitae
- Contact information for three references

Salary and Purdue University benefits (health insurance, vacation days, sick leave, etc) will apply. Purdue University is an equal opportunity, affirmative action employer. All members of the Post lab are expected to value diversity and inclusion, and will be treated with respect and provided the opportunity to achieve their full potential toward career development.

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New for January

PhD Student

In the field of Infectious Diseases, Host-Pathogen Interactions, Immunology

The Konradt lab is looking for PhD students interested in working in the field of infectious diseases, host-pathogen interactions and immunology. The Konradt lab focuses on understanding infections and the subsequent host immune response in the vascular compartment and the placenta. For more information visit: www.purdue.edu/vet/discovery/Konradt/
Knowledge in two-photon microscopy, multi-color flow cytometry, cell isolation, tissue culture, ELISA, RT-PCR or immunohistochemistry would be an advantage but not required.

If interested please send a brief statement of your research experience and interests, curriculum vitae, and names and contact information of 2-3 references in a single PDF file to Dr. Christoph Konradt at ckonradt@purdue.edu

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.

Department of Comparative Pathobiology
College of Veterinary Medicine
725 Harrison Street
West Lafayette, IN 47907-2027

Purdue University

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Multiple Postdoctoral Positions in Toxicology at Purdue University

Multiple postdoctoral positions in toxicology are available in the School of Health Sciences at Purdue University. The School of Health Sciences is a vibrant and collaborative research community with strengths in several areas of toxicology (https://www.purdue.edu/hhs/hsci/). The laboratories of Dr. Aaron Bowman and Dr. Jonathan Shannahan are looking for postdoctoral fellows to join their research team. The specifics for example positions are as follows:

Aaron Bowman, Ph.D. – Seeking postdoc to work on a NIEHS funded research project to explore the mechanisms of persistent and latent neurotoxicity in the context of environmental exposures and neurodegenerative disease. Expertise in neurobiology, cellular and genetic neurotoxicology and/or neurogenomics is preferred, as well as interest in working with human stem cell based neuronal model systems.

Jonathan Shannahan, Ph.D. – The Shannahan laboratory is seeking a postdoc interested in investigating mechanisms of inflammatory resolution in the context of environmental exposures and disease susceptibility. Expertise in toxicology, cell culture and in vivo models is preferred, as well as interest in lipid regulation/signaling, inhalation exposures, and –omics approaches. The School of Health Sciences is committed to increasing STEM participation and diversity; and to fostering a research environment that promotes the success of all its researchers. In addition, Purdue University provides resources and additional training opportunities for postdocs (https://www.purdue.edu/gradschool/postdoctoral-studies/index.php).
If you are interested in joining a lab, please send an email to Dr. Bowman (bowm117@purdue.edu) and/or Dr. Shannahan (jshannah@purdue.edu) with a brief statement of research interests, CV, and the names and contact information for three references. Applicants are welcome to apply to multiple positions. Evaluation of applicants will be reviewed as received and will continue until the positions are filled. Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.

School of Health Sciences  
College of Health and Human Sciences  
Purdue University  
West Lafayette, IN, USA  
https://www.purdue.edu/hhs/hsci/

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The Metskas lab is hiring! We use a combination of fluorescence spectroscopy, cryo electron tomography, and correlated light and electron microscopy (cryo CLEM) to study complex ultrastructures in viruses and bacteria related to human illness. We have positions available for a lab manager/technician and a postdoctoral fellow.

Postdoctoral fellow: The postdoc will initially focus on membrane fusion studies, and may also be involved in methods development in cryo CLEM. PhD in biophysics or a related field. Relevant skills could include: advanced fluorescence spectroscopy or microscopy, intermediate-level scripting, cryo electron microscopy/tomography, FIB milling, single-particle fusion assays, virology, and/or computational simulations. Prior experience in cryo EM/ET is helpful but not required. To apply, please send cover letter, CV and contact information for 3 references to metskas@purdue.edu.

Technician: This position is a combination of lab manager and research technician. Looking for someone with a degree in life sciences, at least 1 year of laboratory experience in basic molecular biology, strong organizational skills and a good team member. Additional skills relevant to our lab, such as eukaryotic cell culture, EM, etc. are very welcome. Salary scales with relevant experience. Please email metskas@purdue.edu for more information, or apply at https://performancemanager8.successfactors.com/sf/jobreq?jobId=16450&company=purdueuniv (internal candidates) or https://career8.successfactors.com/sfcareer/jobreqcareer?jobId=16450&company=purdueuniversity (external candidates).

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Postdoctoral position in the area of drug discovery exploring adenylyl cyclases as novel drug targets. The Watts Laboratory at Purdue University is searching for multiple postdoctoral fellows
for several recently funded projects studying the molecular pharmacology of adenylyl cyclase and GPCR signaling in the areas of pain, drug abuse, and metabolism. Required qualifications: relevant experience in pharmacology, molecular biology, assay development, confocal microscopy, and working in a team environment. Experience working with mice would be preferred but not required for consideration. The position will be highly collaborative with medicinal chemists and behavioral pharmacologists. See website: https://www.mcmp.purdue.edu/faculty/wattsv

If you are interested please submit your CV and a brief description of your research interests to: wattsv@purdue.edu.

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The Tesmer lab at Purdue University (https://www.bio.purdue.edu/lab/tesmer/index.html) is seeking 1-2 outstanding postdoctoral fellows to work on projects related to structure, function, and small molecule modulation of GPCRs, GPCR kinases, and heterotrimeric G protein effector enzymes. In particular, we are especially interested in interviewing:

1. Individuals who have been awarded their Ph.D. in the last year or who will defend their Ph.D. in the next few months.
2. Individuals whose thesis work involved the structure and function of macromolecules OR eukaryotic signal transduction mechanisms/molecular pharmacology. (Ideally, both!)
3. Individuals with strong skills in scientific communication and a strong interest in obtaining extramural support.

Our lab uses a number of biophysical methods to probe protein structure and function of signaling proteins and their regulatory complexes including cryo-EM single particle analysis and X-ray crystallography. We also have mature drug discovery campaigns as well as those poised for initial screens. Please see our current list of publications on PubMed. We strive for a friendly, stress free work environment inclusive to all.

To apply, please send:

1. A cover letter that states your interests in the lab and brief summary of your prior research experience,
2. An NIH formatted biosketch,
3. The names of three references to jtesmer@purdue.edu and lva@purdue.edu