

Research Openings for Postbaccalaureate, Graduate Students and Postdoctoral Fellows



NIDDK
NHLBI
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NICHD
NIAID

Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Chemical Physics

Principal Investigator: G. Marius Clore, MD, PhD, FRS

Lab Section/Branch Website Link: <https://gmclore.org>

About the Position:

The Laboratory of Chemical Physics is recruiting Postdoctoral Fellows who are interested in studying rare, transient excited states of proteins and their complexes using state-of-the-art NMR techniques (largely developed at the NIH) and rapid freeze-quench pulsed Q-band EPR. Problems being tackled currently in the laboratory include mechanisms of aggregation and pre-nucleation, protein fold switching and large protein assemblies.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to mariusc@mail.nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

G. Marius Clore, MD, PhD, FRS

Contact email:

mariusc@mail.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Chemical Physics

Principal Investigator: Adriaan Bax, PhD

Lab Section/Branch Website Link:

<https://www.niddk.nih.gov/about-niddk/staff-directory/biography/bax-adriaan>

About the Position:

The Laboratory of Chemical Physics is recruiting Postdoctoral Fellows who has a hands-on experience in protein NMR spectroscopy with an interest in studying protein dynamics and/or protein folding and misfolding.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to bax@nih.gov. Please write “Postdoctoral Research Position Application” in the subject header.

Contact Name:

Adriaan Bax, PhD

Contact email:

bax@nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Chemical Physics

Principal Investigator: Robert Tycko, PhD

Lab Section/Branch Website Link:

<https://www.niddk.nih.gov/research-funding/at-niddk/labs-branches/laboratory-chemical-physics/solid-state-nuclear-magnetic-resonance-biomolecular-section>

About the Position:

The Laboratory of Chemical Physics is recruiting a Postdoctoral Fellow who is interested in novel, creative, and impactful research on the applications of magnetic resonance spectroscopy, electron microscopy, and related techniques to a variety of problems in biophysics, biophysical chemistry, and structural biology. Includes studies of amyloid structures, amyloid self-assembly mechanisms, viral capsid structures, capsid self-assembly mechanisms, and nuclear pore transport using advanced solid-state NMR and time-resolved NMR methods developed in our laboratory. This research is highly multidisciplinary, involving biomolecular samples, new measurement methods and home-built equipment, mathematical theory, and computer simulations. Many former members of our lab are now faculty members in chemistry, physics, biology, and engineering departments. Therefore, applicants with strong backgrounds in all areas of biological, physical, and engineering sciences are invited to apply.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to robertty@mail.nih.gov. Please write “Postdoctoral Research Position Application” in the subject header.

Contact Name:

Robert Tycko, PhD

Contact email:

robertty@mail.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Molecular Biology

Principal Investigator: Jenny Hinshaw, PhD

Lab Section/Branch Website Link:

<https://www.niddk.nih.gov/research-funding/at-niddk/labs-branches/laboratory-molecular-biology/structural-cell-biology-section>

About the Position:

The Laboratory of Molecular Biology is seeking highly motivated postdoctoral fellow candidates interested in structure-function studies of dynamin proteins. We are investigating the dynamic properties of dynamin proteins by cryo-EM, biochemical and fluorescent microscopy approaches. Dynamin family members are large GTPases involved in numerous membrane fission and fusion events in the cell. Dynamin is crucial for endocytosis, synaptic membrane recycling, and membrane trafficking within the cell. Mutations in dynamin have been shown to cause the peripheral neuropathies, Charcot-Marie-Tooth disease (CMT), centronuclear myopathy (CNM) and Hereditary Spastic Paraplegia (HSP). Other dynamin family members are involved in processes including division and fusion of mitochondria (Drp1, Mfn, Opa1), and anti-viral activity (Mx, hGBP1). Mutations in Opa1 (Optic Atrophy) are a leading cause of blindness while mutations in Mfns (mitofusins) lead to CMT and hereditary motor and sensory neuropathy (HMSM). We are currently exploring the structure and function of dynamin, mitofusins, and Opa1.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to jennyh@niddk.nih.gov. Please write “Postdoctoral Research Position Application” in the subject header.

Contact Name:

Jenny Hinshaw, PhD

Contact email:

jennyh@niddk.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Molecular Biology

Principal Investigator: Kiyoshi Mizuuchi, PhD

Lab Section/Branch Website Link: <https://irp.nih.gov/pi/kiyoshi-mizuuchi>

About the Position:

The Laboratory of Molecular Biology is recruiting a Postdoctoral Fellow who is interested in decoding circuit architecture of reaction-diffusion oscillator systems that controls spatial organization of cell biological events. Positional control of many cellular events is coordinated at the scale much larger than individual molecules involved without assembling superstructures matching the scales of the events. Segregation of replicated chromosomes and mid-cell cytokinesis in bacteria are such examples. ParA-family ATPases play key roles in the above processes helping stable chromosome maintenance. These systems self-organize oscillatory wave patterns involving general principles of reaction-diffusion concept proposed by Alan Turing. We developed optical imaging-based molecular biochemical methodologies making use of reconstituted cell-free reaction systems to dissect the system architecture. The candidate must have experience/familiarity, not essential but could be useful for the project, includes biochemistry, single molecule fluorescence microscopy, cryo-electron microscopy.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to kiyoshimi@niddk.nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Kiyoshi Mizuuchi, PhD

Contact email:

kiyoshimi@niddk.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Library of Medicine (NLM)

Location: Bethesda, MD

Lab Section/Branch: Computational Biology Branch

Principal Investigator: Lauren Porter, PhD

Lab Section/Branch Website Link:

<https://www.nlm.nih.gov/research/researchstaff/PorterLauren.html>

About the Position:

The Computational Biology Branch is recruiting a Postdoctoral Fellow who is interesting in biophysical and structural characterization of fold-switching proteins, which remodel their secondary structures and change their functions in response to cellular stimuli. Depending on the candidate's background and interests, several projects are possible. Specific projects would involve developing and implementing experimental screens to identify new fold-switching proteins, structural and biophysical characterization of fold-switching candidates, or designing and screening mutational pathways that link proteins with different folds.

How to Apply for this Opening:

Please send a CV, a brief description of your research experiences and interests to porterll@nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Lauren Porter, PhD

Contact email:

porterll@nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

Location: Bethesda, MD

Lab Section/Branch: Molecular Neurophysiology and Biophysics Section

Principal Investigator: Dax Hoffman, PhD

Lab Section/Branch Website Link:

<https://www.nichd.nih.gov/research/atNICHD/Investigators/hoffman>

About the Position:

The Molecular Neurophysiology and Biophysics Section is recruiting Postdoctoral Fellows who are interested in molecular, biochemical and electrophysiological approaches to investigate the roles of dendritic voltage-gated and neurotransmitter-activated channels in regulating neuronal development and synaptic plasticity in the mammalian hippocampus. To achieve this, the lab comprises an interdisciplinary team with expertise in cellular and molecular biology, biochemistry, electrophysiology, fluorescence imaging and computer modeling. These approaches allow us to assay channel function and regulation at the molecular scale in living cells. At the larger scale, we are investigating how mutations or misregulation of ion channel function, trafficking or localization negatively affects neuronal function and development. Mouse models are employed to assay the effect of these dysfunctions on learning and memory and in pathophysiological processes thought to have a synaptic basis, including Autism, Fragile X Syndrome and Alzheimer's disease. We are looking for postdocs in electrophysiology/imaging.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to Hoffmand@nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Dax Hoffman, PhD

Contact email:

Hoffmand@nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

Location: Bethesda, MD

Lab Section/Branch: Section on Molecular Transport

Principal Investigator: Tatiana Rostovtseva, PhD

Lab Section/Branch Website Link:

<https://www.nichd.nih.gov/research/atNICHD/Investigators/Bezrukov>

About the Position:

The Section on Molecular Transport is recruiting a Postdoctoral Fellow who is interested in studying the function and regulation of ion channels on a single-molecule level using a state-of-the-art system of planar lipid membranes and nanopore methodology. Use a single-channel electrophysiology complemented by other biophysical and cell biology approaches to understand the role of beta-barrel channels in metabolite exchange between cells and cellular compartments, with a focus on the voltage-dependent anion channel (VDAC) of the outer mitochondrial membrane. The ultimate goal is to improve outcomes of mitochondria-associated diseases such as cancer, Parkinson's, and Alzheimer's disease by using VDAC as a pharmacological target.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to rostovtt@mail.nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Tatiana Rostovtseva, PhD

Contact email:

rostovtt@mail.nih.gov



Job Opening: Postbaccalaureate Research Opportunity

Sponsor Institute: Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

Location: Bethesda, MD

Lab Section/Branch: Section on Molecular Transport

Principal Investigator: Tatiana Rostovtseva, PhD

Lab Section/Branch Website Link:

<https://www.nichd.nih.gov/research/atNICHD/Investigators/Bezrukov>

About the Position:

The Section on Molecular Transport is recruiting a Postbacs who is interested in studying the role of mitochondrial voltage-dependent anion channel (VDAC) in neurodegeneration using a single-channel electrophysiology complemented by other biophysical approaches. The primary focus of this study is on functional interaction between VDAC and a few FDA-approved anticancer and antidepressant drugs, and a selective estrogen modulator.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to rostovtt@mail.nih.gov. Please write "Postbaccalaureate Research Position Application" in the subject header.

Contact Name:

Tatiana Rostovtseva, PhD

Contact email:

rostovtt@mail.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Heart, Lung and Blood Institute (NHLBI)

Location: Bethesda, MD

Lab Section/Branch: Biochemistry and Biophysics Center

Principal Investigator: Justin Taraska, PhD

Lab Section/Branch Website Link:

<https://www.nhlbi.nih.gov/science/molecular-and-cellular-imaging>

About the Position:

The Biochemistry and Biophysics Center is recruiting a Postdoctoral Fellow who is interested in developing and using advanced imaging tools to understand the nanoscale structures and dynamics of proteins and organelles at the plasma membrane of mammalian cells. Candidates with interests in live cell imaging, super-resolution microscopy, electron microscopy, cryo-electron microscopy, correlative methods, macromolecular structures, image processing, and developing new methods for imaging and analysis are encouraged to apply.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to justin.taraska@nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Justin Taraska, PhD

Contact email:

justin.taraska@nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Heart, Lung and Blood Institute (NHLBI)

Location: Bethesda, MD

Lab Section/Branch: Biochemistry and Biophysics Center

Principal Investigator: Nico Tjandra, PhD

Lab Section/Branch Website Link:

<https://www.nhlbi.nih.gov/science/structural-biophysics>

About the Position:

The Biochemistry and Biophysics Center is recruiting an outstanding postdoctoral candidates with experience in NMR techniques who are interested in developing innovative approaches to solving problems in structural biology. Candidates should have a Ph.D. in physics, chemistry, or biochemistry and the skills to work in a multidisciplinary environment. The responsibilities of the fellow include applying state of the art solution NMR techniques to study protein-protein and protein-drug interaction, improving NMR data analysis, and biochemical methods to compliment structural studies. The Structural Biophysics Section has strong research programs in apoptosis, cytoskeleton regulation and retroviral replication.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to tjandran@nhlbi.nih.gov. Please write "Postdoctoral Research Position Application" in the subject header.

Contact Name:

Nico Tjandra, PhD

Contact email:

tjandran@nhlbi.nih.gov



Job Opening: Postdoctoral Research Opportunities

Sponsor Institute: National Heart, Lung and Blood Institute (NHLBI)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Protein Conformation and Dynamics, Biochemistry and Biophysics Center

Principal Investigator: Jennifer C. Lee, PhD

Lab Section/Branch Website Link:

<https://www.nhlbi.nih.gov/science/protein-conformation-and-dynamics>

About the Position:

The Laboratory of Protein Conformation and Dynamics, Biochemistry and Biophysics Center is recruiting a Postdoctoral Fellows interested in protein aggregation and phase separation and their relationships to neurodegenerative disease etiology. The candidate must have a background and expertise including but not limited to protein chemistry, molecular biophysics, chemical biology, cell biology, spectroscopy, and/or microscopy are beneficial but not required.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to leej4@nhlbi.nih.gov. Please write “Postdoctoral Research Position Application” in the subject header.

Contact Name:

Jennifer C. Lee, PhD

Contact email:

leej4@nhlbi.nih.gov



Job Opening: Postdoctoral Research Opportunity in RNA Processing and Decay

Sponsor Institute: National Heart, Lung and Blood Institute (NHLBI)

Location: Bethesda, MD

Lab Section/Branch: Biochemistry and Biophysics Center

Principal Investigator: J. Robert Hogg, PhD

Lab Section/Branch Website Link:

<https://www.nhlbi.nih.gov/science/ribonucleoprotein-biochemistry>

About the Position:

The Biochemistry and Biophysics Center is recruiting is seeking a Postdoctoral Fellow to explore the biochemistry and biophysics of the nonsense-mediated mRNA decay (NMD) pathway. We investigate how RNA-protein complexes are built and destroyed at levels spanning from single molecules to whole transcriptomes, with a particular focus on understanding the roles of the RNA helicase UPF1 in RNA degradation. This position offers the opportunity for postdoctoral fellows to develop independent research programs with scientific and career development support.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to j.hogg@nih.gov. Please write “Postdoctoral Research Opportunity in RNA Processing and Decay” in the subject header.

Contact Name:

J. Robert Hogg, PhD

Contact email:

j.hogg@nih.gov



Job Opening: Postbaccalaureate and Graduate Students Research Opportunity

Sponsor Institute: National Heart, Lung and Blood Institute (NHLBI)

Location: Bethesda, MD

Lab Section/Branch: Lab for Advanced Microscopy and Biophotonics

Principal Investigator: Jay R. Knutson, PhD

Lab Section/Branch Website Link:

<https://www.nhlbi.nih.gov/science/advanced-microscopy-and-biophotonics>

About the Position:

The Lab for Advanced Microscopy and Biophotonics is recruiting Postbaccalaureate and Graduate Students who are interesting in development of metabolic FLIM imaging tools.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to knutsonj@nhlbi.nih.gov. Please write “Research Opportunity Application in Advanced Microscopy and Biophotonics lab” in the subject header.

Contact Name:

Jay R. Knutson, PhD

Contact email:

knutsonj@nhlbi.nih.gov



Job Opening: Postdoctoral and Postbaccalaureate Research Opportunity

Sponsor Institute: National Institute of Allergy and Infectious Diseases (NIAID)

Location: Twinbrook Campus, Rockville, MD

Lab Section/Branch: Laboratory of Malaria and Vector Research

Principal Investigator: Sanjay A. Desai, MD, PhD

Lab Section/Branch Website Link:

<https://irp.nih.gov/pi/sanjay-desai>

About the Position:

The Laboratory of Malaria and Vector Research is recruiting a Postdoctoral and a Postbaccalaureate Fellow. The positions will involve one or more projects on structural and molecular biology of malaria parasite transporters and channels that are antimalarial drug targets. As a highly multi-disciplinary, there are outstanding opportunities to learn and refine skills in cell and molecular biology, biochemistry, structural biology and biophysics, chemical biology, and other broad areas.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to sdesai@niaid.nih.gov. Please write “Research Opportunity in Malaria and Vector Research group” in the subject header.

Contact Name:

Sanjay A. Desai, MD, PhD

Contact email:

sdesai@niaid.nih.gov



Job Opening: Postdoctoral and Graduate Research Opportunity in Computational Biology

Sponsor Institute: National Institute of Allergy and Infectious Diseases (NIAID)

Location: Bethesda, MD

Lab Section/Branch: Laboratory of Immune System Biology

Principal Investigator: Martin Meier-Schellersheim, PhD

Lab Section/Branch Website Link:

<https://www.niaid.nih.gov/research/meier-schellersheim-research-group>

About the Position:

The Laboratory of Immune System Biology is recruiting a Graduate Student and a Postdoctoral Fellow who are interesting on developing mathematical and computational modeling approaches for cellular signaling pathways and multi-cellular communication using high performance computing techniques. These models may be at the molecular level or explore the biochemistry of signal propagation. This fully funded position will allow the successful candidate to work in a highly collaborative interdisciplinary environment as part of a team of experimentalists and computational modelers.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to mms@niaid.nih.gov. Please write “Research Opportunity in Computational Biology” in the subject header.

Contact Name:

Martin Meier-Schellersheim, PhD

Contact email:

mms@niaid.nih.gov



Job Opening: Postdoctoral Research Opportunity

Sponsor Institute: National Institute of Neurological Disorders and Stroke (NINDS)

Location: Bethesda, MD

Lab Section/Branch: Synaptic Transmission Section

Principal Investigator: Ling-Gang Wu, MD, PhD

Lab Section/Branch Website Link: <https://irp.nih.gov/pi/ling-gang-wu>

About the Position:

The Synaptic Transmission Section is recruiting Postdoctoral Fellow who is interesting in studying exo- and endocytosis using STED, PALM/STORM, and MINFLUX nanoscopy (~50–1 nm resolution) to visualize single molecules that drive fusion pore opening, expansion, and closure, as well as the endocytic flat-to-round membrane transformation that forms vesicles. By integrating these imaging approaches with molecular biology, electrophysiology, and electron microscopy, the lab aims to elucidate the molecular mechanisms of fusion and endocytosis with nanometer spatial and high temporal resolution. The Wu lab seeks applicants with a Ph.D. in cell biology, biophysics, molecular biology, neuroscience, structural biology, or related fields, and experience in one or more of the following: confocal and/or super-resolution imaging, molecular biology, electrophysiology, electron microscopy, cryo-EM/ET, and/or modeling.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to wul@ninds.nih.gov. Please write “Postdoctoral Research Position Application” in the subject header.

Contact Name:

Ling-Gang Wu, MD, PhD

Contact email:

wul@ninds.nih.gov



Job Opening: Postdoctoral and Postbaccalaureate Research Opportunity

postbac research opportunity

Sponsor Institute: National Institute of Neurological Disorders and Stroke (NINDS)

Location: Bethesda, MD

Lab Section/Branch: Computational Structural Biology Section

Principal Investigator: Lucy Forrest, PhD

Lab Section/Branch Website Link:

<https://www.ninds.nih.gov/about-ninds/who-we-are/staff-directory/lucy-r-forrest>

About the Position:

The Computational Structural Biology Section is recruiting Postdoctoral Fellows and Postbaccalaureate who are interested in molecular modeling or simulation of proteins implicated in Parkinson's disease.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to lucy.forrest@nih.gov. Please write "Research Opportunity Application in Molecular Modeling and Simulation of Proteins" in the subject header.

Contact Name:

Lucy Forrest, PhD

Contact email:

lucy.forrest@nih.gov



Job Opening: Postbaccalaureate, Postdoctoral and Graduate Student Research Opportunity

Sponsor Institute: National Institute of Neurological Disorders and Stroke (NINDS)

Location: Bethesda, MD

Lab Section/Branch: Cell Biology and Biophysics Unit

Principal Investigator: Antonina Roll-Mecak, PhD

Lab Section/Branch Website Link: <https://research.ninds.nih.gov/roll-mecak-lab>

About the Position:

The Cell Biology and Biophysics Unit is recruiting Postdoctoral, Postbaccalaureate and Graduate Students. A **postdoctoral fellowship** is available in the Cell Biology and Biophysics Unit headed by Dr. Antonina Roll-Mecak to work on mechanisms that regulate microtubule organization and cargo transport in the neuron, with a focus on the tubulin code. The project combines in vitro reconstitution, superresolution fluorescence microscopy and cryogenic electron tomography to capture the structure and dynamic behavior of the cytoskeleton and its alteration in neurodegeneration. The successful candidate will work collaboratively with the Advanced Imaging & Microscopy center at the NIH and will benefit from a collaborative co-mentored experience. We are looking for **Ph.D. graduates** with a strong record of accomplishments and expertise in cell biology, biochemistry, single molecule biophysics, light microscopy, or cryo-EM. The NIH has an outstanding neuroscience and structural biology community, and the lab has regular access to state-of-the-art resources such as TIRF, iSIM and lattice sheet microscopes, Chameleon, Krios with K3 camera as well as Aquilos 2 cryo-FIB. Please send your CV, a one-page research experience summary and contact information of three references to Antonina@nih.gov Please write “Tubulin code map” in the subject header. The position is available immediately.

How to Apply for this Opening:

Please send a CV, a brief description of your research experience and interests to Antonina@nih.gov. Please write “Tubulin code map” in the subject header.

Contact Name:

Antonina Roll-Mecak, PhD

Contact email:

Antonina@nih.gov

