Postdoctoral Positions at Cincinnati Children's

Positions Available in various areas (click to review details):

- **Anesthesia**
- **Bioinformatics/ Computational Biology/ Biostatistics/ Epidemiology**
- **Cancer and Blood Diseases**
- **Cardiovascular Research**
- **Genetics, Development, Physiology, and Disease**
- **Immunology/ Inflammation**
- **Neurology**

Click here to submit an application online and use the relevant job number.

Questions?
Please contact:
Michael Bennett, PhD, Scientist Recruiter:
research@cchmc.org

Cincinnati Children's Hospital Medical Center (CCHMC) is a premier **pediatric research institution** with over 900 diverse and productive faculty members. Here, researchers work collaboratively across specialties and divisions to address some of the biggest challenges we face today in improving child health. A strong network of research support **services** and **facilities**, along with institutional commitment to research, push our team of faculty, postdocs and support staff to explore the boundaries of what is possible, leading to **significant breakthroughs**. We are driven by our mission to improve child health and transform the delivery of care through fully integrated, globally recognized research, education and innovation.

Post-doctoral research fellows at Cincinnati Children's are valued for their unique interests and strengths, and are supported by our institution's **strong programming for post-docs** through the **Office of Postdoctoral Affairs** and the **Office of Academic Affairs and Career Development**. Mentoring, **support for international students** and an emphasis on crafting high-quality grant proposals are only a few of the **features that set our program apart**. Cincinnati Children's is a respected part of the broader, and very vibrant, Cincinnati community. With a thriving arts scene, numerous festivals celebrating music and food, a passionate fan following for our college and professional sports teams, and a variety of opportunities for outdoor activities, **our region is truly a great place to work and live**.

Please visit our website for more information about Postdoctoral Research at CCHMC and a monthly-updated listing of postdoctoral fellowship opportunities.

Please review our current openings described in the subsequent pages (the links on the left will take you to the sections of interest).

Please submit a cover letter, CV, summary of research interests, and contact information for 3 references to the email address at the end of the position for which you would like to be considered.

Cincinnati Children's Hospital Medical Center is an Affirmative Action/ Equal Opportunity Institution

Anesthesia

Research Fellow Job Number: 115990. The Department of Anesthesia, Division of Pain Management at Cincinnati Children's Hospital Medical Center is seeking to recruit several enthusiastic and highly motivated Postdoctoral Research Fellows to join the innovative laboratory of Dr. Michael Jankowski. The Jankowski laboratory is investigating the molecular mechanisms of sensory neuron plasticity after peripheral injuries (https://www.cincinnatichildrens.org/research/divisions/a/anesthesia/labs/jankowski). Recently, our exciting novel research has found that a number of distinct non-neuronal cells have unique properties that are crucial for the detection and transmission of noxious stimuli across the lifespan under normal and pathological conditions. As part of our growing team, these Research Fellows will execute multifaceted studies designed to understand the mechanisms by which peripheral glia and circulating immune cells modulate sensory perception in the periphery to influence multiple biological processes including nociception, cardiovascular reflexes and myofiber repair. Results are expected to lead to the development of novel pain treatments for numerous injury and/or disease-related conditions.
Contact: Michael Jankowski, PhD   **Email Address: Michael.Jankowski@cchmc.org**

Research Fellow Job Number: 107954. A post-doctoral Fellow position is available in the laboratory of Dr. Vidya Chidambaran. The laboratory studies the genetics, epigenetics, physiology and psychology of chronic post-surgical pain and their role in opioid efficacy, using PK/PD models of opioid concentration-exposure after surgery. We have identified variants and epigenetic mechanisms associated with post-surgical pain and opioid induced respiratory depression and analgesia. To further evaluate the functional role of these variants, the lab is seeking a research fellow who has expertise in brain imaging, biosensors and/or PK/PD modeling, bench side molecular along with bioinformatics expertise. The fellow will be expected to design experiments, interpret results, prepare manuscripts and support grant writing efforts. PhD graduates with any combination of neuro imaging, pharmacology, molecular biology, immunology, as well as bioinformatics experience, along with a strong publication record, and the initiative to independently drive research projects are invited to apply.
Contact: Vidya Chidambaran, MD   **Email Address: Vidya.Chidambaran@cchmc.org**

Bioinformatics/ Computational Biology/ Biostatistics/ Epidemiology

Research Fellow/Associate Job Number: 115657/115648. The Cleveland Lab and the Center for Pulmonary Imaging Research (CPIR) at Cincinnati Children's Hospital seeks to hire a Postdoctoral Fellow in the area of MR imaging research. The selected candidate will work in a unique, multi-PI center with a diverse team of engineers, pulmonologists, and imaging scientists to quantify lung structure and function using ultra-short echo-time (UTE) 1H and hyperpolarized 129Xe MRI in preclinical mouse models of lung disease and translational human studies in children and adults. Applicants with training in magnetic resonance—EPR, NMR or MRI—and a PhD in a relevant discipline (e.g., engineering, phys-ics, medical physics, or chemistry) are encouraged to apply. While all candidate with strong MR backgrounds will be consid-ered, ideal candidates will possess expertise in one or more of the following: pulse programming, image reconstruction/analy-sis, scientific computing (MATLAB, C++, etc.), hardware design, in vivo imaging/spectroscopy, or hyperpolarized media.
Contact: Zackary Cleveland, PhD   **Email Address: Zackary.Cleveland@cchmc.org**

Research Fellow/Associate Job Number: 117237. There is an immediate opening for a postdoctoral Research Fellow or Research Associate (staff scientist) in the laboratory of Dr. Jasbir Dhaliwal in the Division of Gastroenterology. Through close collaboration with the Division of Biomedical Informatics, the candidate will apply state-of-the-art machine learning methods to clinical and molecular data and contribute to cutting-edge findings in biology and health. You will develop data processing and reporting pipelines to manage and maintain data quality and provenance. The candidate must be comfortable working as part of a team, and requires effective communication with colleagues of various backgrounds, skill sets, and educational experience. The multi-disciplinary nature of the program affords great opportunity for a candidate's growth and development. Proficiency in R and python is essential (Linus/Unix is a plus). Candidates with a PhD (or equivalent doctoral degree) in Computer Science, Bioinformatics, Mathematics, Statistics, or Biostatistics are encouraged to apply. Familiarity with statistical analysis of complex data including clinical data, as well as experience with basic (e.g. random forest, SVMs) and advanced (e.g. deep learning, stochastic processes) machine learning methods is an asset.
Contact: Jasbir (Jazz) Dhaliwal, MBBS   **Email Address: Jasbir.Dhaliwal@cchmc.org**

Research Fellow Job Number: 116939. Dr. Miraldi's Immuno-Engineering Laboratory seeks a computational research fellow to build mathematical models of the immune system in vivo. These models will be constructed from cutting-edge, high-dimensional, immune-system measurements (e.g., single-cell genomics, chromatin state, proteomics). Our mathematical modeling frameworks span mechanistic (e.g., dynamic gene regulatory networks) to deep learning (e.g., prediction of cellular epigenomes from DNA sequence). Situated at Cincinnati Children's Hospital, we are dedicated to the design of computational methods and systems-immunology studies that will ultimately improve the health of children. Through close collaboration with our physician and experimental colleagues, we iteratively test and refine our models, so that the models yield novel insights into immune-cell function and ultimately guide new therapeutic strategies in the context of autoimmunity, infectious disease and cancer. The ideal candidate will collaborate closely with experimental immunologists, physicians and other computational biologists. The team will design and execute hybrid computational-experimental strategies that push the boundaries of both immunology and computational biology. The ideal candidate will have a quantitative background in computational/systems biology, engineering, computer science, statistics, math, or a related field. He or she will also (1) be a fluent programmer in at least one language (e.g., Python, R, MATLAB) and be willing to develop fluency in other languages, as needed, (2) have research experience in machine learning, bioinformatics and/or mathematical modeling, and (3) a trackable publication record. An enthusiasm and willingness to develop immunology expertise on the job is also necessary.
Contact: Emily Miraldi, PhD   **Email Address: Emily.Miraldi@cchmc.org**

Research Fellow Job Number: 118097. Dr. Sandra Andorf's laboratory has an opening for a highly motivated postdoctoral research fellow in computational biology. Our lab focusses on computational approaches in the intersection of immunological and clinical research. We study underlying causes and novel approaches for the prevention, diagnosis and treatment of allergic diseases and other immune-related disorders. Our lab is affiliated with the Divisions of Biomedical Informatics as well as Allergy & Immunology. Much of our work is done in close collaboration with experimental biologists, clinicians and biostatisticians, making this interdisciplinary environment a great opportunity for the candidate's growth and development. A main part of the position will be the work with flow and mass cytometry (CyTOF) datasets and their integration with clinical information and other high-dimensional data. Candidates with a PhD in computational immunology, computational biology, bioinformatics, biostatistics, or similar are encouraged to apply. Programming experience is required (preferably in R or python). A background in single-cell data analyses is highly desired. Experience in working with immunological and clinical trial data will be a plus.
Contact: Sandra Andorf, PhD   **Email Address: Sandra.Andorf@cchmc.org**

Research Fellow/Associate Job Number: 117314. Dr. Lili He's artificial intelligence for computer aided diagnosis lab is committed to lending the group's interdisciplinary expertise in medical imaging, computer science and biomedical engineering to facilitate major breakthroughs in the medical field by optimizing imaging acquisition and aiding doctors in disease diagnosis, outcome prediction, image segmentation and interpretation, as well as, treatment decision making and assessment. We are now looking for highly motivated candidates for positions including Post-doctoral Research Fellows or Research Associates and will also consider Imaging Analysts and Software Engineers. The research projects include: 1. Develop structural, functional and diffusion MRI prognostic biomarkers and machine learning models of early detection/prediction of neurodevelopmental deficits and other important clinical outcomes for high risk newborns and infants; 2. Develop machine learning/deep learning methods using conventional MRI and MR elastography data to accurately detect and quantify liver fibrosis, using biopsy-derived histologic data as the reference standard; 3. Large-scale collaborative analyses of radiomics and genomics data for prediction/diagnosis neurodevelopmental disorder or liver, bowel other disease prediction; and 4. Develop machine learning/deep learning algorithms for MRI image reconstruction. Experience in computer science, mathematics, biomedical engineering, bioinformatics, electrical engineering, physics or related field. Strong programming skills with Python, Matlab. Strong communication skills in written and verbal English. Trackable publication records. Experience in machine learning and deep learning development with Scikit-learn, Deep learning package (e.g., Tensorflow, Keras), and Matlab packages. Experience in MRI image research or analysis of high throughput sequencing genomics data (ChIP-Seq, DNase-Seq, and/or ATAC-Seq) is a plus.
Contact: Lili He, PhD   **Email Address: Lili.He@cchmc.org**

Research Fellow Job Number: 97786. Dr. Theresa Alenghat's laboratory has an opening for a highly motivated postdoctoral research fellow with computational training and an interest in epigenetics and host-microbe interactions (http://www.cincinnatichildrens.org/research/divisions/i/immunobiology/labs/alenghat/default/). We explore molecular pathways that regulate how intestinal microbiota impact immune and metabolic homeostasis, infection, and inflammatory bowel disease. Candidates with publications reflecting expertise in epigenetics and bioinformatics analyses are encouraged to apply.
Contact: Theresa Alenghat, VMD, PhD   **Email Address: Theresa.Alenghat@cchmc.org**

Research Fellow Job Number: 107220. Cincinnati Children's Hospital Medical Center is soliciting applications for a postdoctoral fellow position in the Center for Pulmonary Imaging Research (CPIR). The CPIR is a multidisciplinary department affiliated with the areas of Pulmonary Medicine, Radiology, and Neonatology at Cincinnati Children's, which is currently ranked #3 in the U.S. among children's hospitals. The CPIR focuses on hyperpolarized-gas and proton MRI of the respiratory system to understand regional pulmonary structure and function in children and adults with chronic respiratory diseases that range from CF to asthma to rare-lung diseases and COPD. With a focus on improving quality of translating new imaging techniques to research and clinical applications in pulmonary medicine, faculty and staff in the CIPR engage in research that is directly translational, with near-constant interaction with basic scientists, radiologists, and pulmonologists. The candidate must have an advanced graduate (PhD) or medical degree (MD) and experience with MRI pulse-sequence programming and/or hyperpolarized gases. Preferred applicants will have one or more of the following qualifications: experience with pulse-sequence programming on the Philips platform, experience with hyperpolarized-gas production and/or delivery in vivo, non-proton MR spectroscopy, and/or quantitative texture-based or feature-based image analysis.
Contact: Jason Woods, PhD   **Email Address: Jason.Woods@cchmc.org**

Research Fellow Job Number: 115692. Dr. Hee Woong Lim's laboratory in the Division of Biomedical Informatics has an opening for a research fellow to work at the cutting edge of bioinformatics & computational biology. The Lim lab is interested in understanding fundamental regulatory mechanisms of gene expression in various contexts including, but not limited to, metabolism, tissue development, and pharmacogenomics. We primarily focus on enhancer regulation, transcription, architecture, and function. We take a systems approach and develop computational pipelines integrating various types of high-throughput data such as ChIP-seq, ChIP-exo, GRO-seq, (sc)RNA-seq, ATAC-seq, and Hi-C. The successful candidate will have unique research opportunities at the interface of quantitative science, experimental biology, and clinical science. The ideal candidate will have a Ph.D. in a quantitative science such as computer science, bioinformatics, physics or a related interdisciplinary field, be a highly motivated problem solver, and have strong communication skills. Experience with next generation sequencing data and bioinformatics tool development is preferred. Candidates with a biology background with quantitative training are also encouraged to apply.
Contact: Hee Woong Lim, PhD   **Email Address: HeeWoong.Lim@cchmc.org**

Research Fellow Job Number: TBD. The Roskin Lab combines computational and molecular biology methods to understand the adaptive immune system (https://www.cincinnatichildrens.org/research/divisions/b/bmi/labs/roskin). Using modern sequencing technology, we study changes in the immune receptor repertoire and link those changes to immunogen exposure or autoimmunity/immunodeficiency status. We are looking for a postdoctoral researcher experienced in bioinformatics interested in applying their skills to process and analyze large scale immunological data sets. The ideal candidate will have a recent PhD & a strong publication track record. Experience with processing and analysis of large-scale data sets with modern "big data" methods preferred.
Contact: Krishna Roskin, PhD   **Email Address: Krishna.Roskin@cchmc.org**

Cancer and Blood Diseases

Research Fellow Job Number: 115529. The Cancelas Laboratory is seeking a post-doctoral fellow to investigate the role of cell fate determinants in normal and leukemic hematopoiesis. The fellow would use genetically modified animals, in combination with in vitro studies, to determine signaling cross-talks between receptors, Rho GTPases and transcriptional or post-translational regulation of relevant signaling proteins and enzymes. The ideal candidate would have a Ph.D. in immunobiology, molecular biology, or neuroscience. Experience with murine models of disease, immunofluorescence/immunohistochemistry, and flow cytometry is preferred.
Contact: Jose Cancelas, MD, PhD   **Email Address: Jose.Cancelas@cchmc.org**

Research Fellow Job Number 117333. Neurofibromatosis type 1 (NF1) is an inherited disease predisposing affected individuals to benign Schwann cell tumors called neurofibromas. But the molecular mechanisms of neurofibroma tumorigenesis are poorly understood. Surgery remains the mainstay of therapy for developed neurofibromas. New therapeutic strategies and new targets for neurofibroma treatment are urgently needed. The candidate will use genetically engineered mouse models to study the role of Runt-related transcription factor (Runx) family of genes (Runx1, 2, & 3) in neurofibroma formation and to test the therapeutic effects on neurofibroma mouse model using specific inhibitors. Candidates with a doctoral degree and a strong cancer biology and molecular biology background as well as genetically engineered mouse model experience are encouraged to apply.
Contact: Jianqiang Wu, MD   **Email Address: Jianqiang.Wu@cchmc.org**

Research Associate Job Number: 118965. There is an immediate opening for a postdoctoral Research Associate the laboratory of Gang Hang, PhD. Research in Dr. Huang's laboratory focuses on genetic and epigenetic regulation of normal blood cell development and malignancies. Recent studies the laboratory have identified a novel epigenetic tumor suppressor SETD2 (that catalyzes tri-methylation of K36 of histone H3) that functions through crosstalk with RNA polymerase and other epigenetic regulators. The candidate will continue these studies to provide new insights into the interplay between genetic and epigenetic factors in normal blood development and hematopoietic malignancies, as well as new insights into chemotherapy resistance in hematopoietic malignancies, with plans to develop novel treatments for future clinical intervention. The ideal candidate will have a recent PhD and a strong background in molecular biology, cell biology, epigenetics and/or stem cell biology. Experience with animal models and a hematology background would be a significant plus.
Contact: Gang Huang, PhD   **Email Address: Gang.Huang@cchmc.org**

Research Fellow Job Number: 117276. The Filippi Lab has an immediate opening for a postdoctoral fellow with interest and expertise in Hematopoiesis and Hematopoietic Stem Cell functions. The laboratory has several existing projects focusing on the regulation of hematopoietic stem cell (HSC) self-renewal under regenerative conditions and during aging, the role of innate immune signaling in HSC functions and bone marrow failure and the role of metabolism in HSC self-renewal and divisional memory. The lab uses state-of-the-art imaging technologies, multi-omics approaches, mouse models and patient specimens. Candidates should possess strong laboratory and analytical skills, and a record of peer-reviewed publications. Applicants with prior experience in hematopoiesis and stem cell biology are particularly encouraged to apply, but we will also consider candidates with strong backgrounds in immunology, cellular biology, imaging and cancer biology.
Contact: Marie-Dominique Filippi, PhD   **Email Address: Marie-Dominique.Filippi@cchmc.org**

Research Fellow Job Number 115458. A postdoctoral Research Fellow position is currently available in the Huang Lab. The Huang Lab at Brain Tumor Center of Cincinnati Children's Hospital Medical Center is integrating dry-lab bioinformatics analysis with wet-lab experiments to identify driver mutations, novel biomarkers, epigenetic regulation of immune and tumor cells, histone modification, genome variation, non-coding RNA, tumor/immune/stroma crosstalk in tumor/inflammation microenvironment, and novel immunotherapy for Brain Tumors, and Neurodegenerative Diseases. The Lab has published papers in Science Translational Medicine (Cover Story), Cancer Cell (Cover Story), as well as bioinformatics journals, PLOS Computational Biology, and Bioinformatics. The Brain Tumor Team of Cincinnati Children's Hospital Medical Center is delivering leading-edge treatments and world-class care. The Lab has strong bioinformatics or computational biology team so that the candidate will collaborate bioinformaticians to deliver the start-of-the-art research and top-tier publications and learn corresponding bioinformatic techniques. Brain Tumor Biology - The position is available for a Post-doctoral Research Fellow studying driver coding and non-coding mutations, non-coding RNAs, epigenetic regulation especially enhancer-target interactions in Brain Tumors and screen novel drugs and drug combinations for treating Brain Tumors. Candidates should have (or be close to completing) a Ph.D. in the area of molecular and cell biology, cancer biology, brain tumor biology or immunology, and neuroscience. Proficiency in experimental skills, including cell culture, molecular clone (such as the construction of knock-down or knock-out), ChIP-qPCR, real-time PCR, flow cyto, construction of mice brain xenograft model is a plus. The position expects experience in building NGS libraries such as RNA-seq, single-cell RNAseq, and ChIP-seq.
Contact: Frank Huang, PhD   **Email Address: Frank.Huang@cchmc.org**

Research Fellow Job Number: 117204. There is an immediate opening for a Postdoctoral Research Fellow in the laboratory of Dr. Nicolas Nassar in the Drug Discovery Program in the Division of Experimental Hematology and Cancer Biology. Dr. Nassar's lab is focused on signaling of small GTPases. Efforts in the lab encompass several methodologies, including drug discovery of inhibitor of GTPase deregulation in cancer, signaling, biochemical and biophysical studies, cellular functional assays, and protein crystallography. The lab identified a small molecule active in xenograft models of leukemia, lung and breast cancers. The postdoctoral fellow will utilize in vitro biochemical methods as well as cellular and mouse models to investigate the efficacy, mechanism of action, activity and pharmacodynamics properties of subsequently identified analogs. The ideal candidate will be an interactive, highly motivated individual with demonstrated productivity and good oral and written communication skills. Applicants must hold a PhD, MD, or equivalent doctoral degree in molecular biology, biochemistry, cell biology and relevant disciplines. Applicants should have a strong background in molecular biology, biochemical and cell culture techniques. Experience with protein structure determination, recombinant protein purification, or related biochemical or biophysical techniques are an added advantage.
Contact: Nicolas Nassar, PhD   **Email Address: Nicolas.Nassar@cchmc.org**

Research Fellow Job Number: 112231. A postdoctoral position is available immediately in Dr. Benjamin Tourdot's lab in the Division of Experimental Hematology & Cancer Biology at Cincinnati Children's Hospital Medical. The lab is interested in improving our understanding of the mechanisms that regulate platelet activation during hemostasis and thrombosis to enhance the treatment of bleeding and clotting disorders. The laboratory is actively investigating how variations in platelet genes predispose individuals to life-threatening bleeding or clotting disorders utilizing a multifaceted approach encompassing the use of human platelets, megakaryocyte cell lines, and murine models of hemostasis and thrombosis. Recent Ph.D. graduates with prior experience in cellular signaling or thrombosis research, and the desire to be competitive at the highest level are preferred.
Contact: Benjamin Tourdot, PhD   **Email Address: Research@cchmc.org**

Research Fellow Job Number: 102057. A position is available to study the role of Rho family GTPases and mTOR signaling in hematopoiesis and cancer, particularly in hematopoietic stem cells and cancer stem cells, in Dr. Yi Zheng's laboratory. The laboratory employs mouse gene targeting models and current molecular, cellular, and embryological techniques to elucidate the signaling pathways regulated by Rho GTPases and mTOR (see: http://www.cincinnatichildrens.org/research/divisions/e/ex-hem/labs/zheng/default/). A PhD in Molecular or Developmental Biology, Cell Biology, Biochemistry, or a related field, is required. Experience studying mouse models, hematopoiesis and/or various stem cell regulations are desirable.
Contact: Yi Zheng, PhD   **Email Address: Yi.Zheng@cchmc.org**

Research Fellow Job Number: 101446. A postdoctoral Research Fellow position is open in the Brain Tumor Center for individuals with an interest in glial cell biology, brain cancers, and neurodegenerative diseases. Research areas include brain development and tumorigenesis, demyelinating diseases such as multiple sclerosis, and functional regeneration (http://www.cincinnatichildrens.org/bio/l/qing-richard-lu/). Recent PhD or MD graduates with a strong background in one or more of the following areas: molecular & cell biology, neurobiology, cancer biology, or computational biology are encouraged to apply.
Contact: Qing (Richard) Lu, PhD   **Email Address: Richard.Lu@cchmc.org**

Cardiovascular Research

Research Fellow Job Number: 112909. A postdoctoral Research Fellow position is available immediately in Dr. Cat Makarewich's laboratory (https://www.cincinnatichildrens.org/research/divisions/m/mcb/labs/makarewich) in the Division of Molecular Cardiovascular Biology in the Heart Institute. The Makarewich lab investigates the molecular mechanisms that underlie the pathophysiology of cardiovascular disease and skeletal muscle disorders using genetically engineered mouse models and biochemical techniques. Recent Ph.D. candidates with research experience in molecular/cellular biology, biochemistry and/or physiology are encouraged to apply. Previous experience with mouse genetics and animal handling is preferred but not required. The ideal candidate should work well in teams as well as independently and be organized, self-motivated and hardworking.
Contact: Cat Makarewich, PhD   **Email Address: Cat.Makarewich@cchmc.org**

Research Fellow Job Number: 117492. A postdoctoral Research Fellow position is available immediately in Dr. Mattia Quattrocelli's laboratory (https://www.cincinnatichildrens.org/research/divisions/m/mcb/labs/quattrocelli) in the Division of Molecular Cardiovascular Biology in the Heart Institute. The Quattrocelli lab investigates the metabolic and epigenetic mechanisms that underlie the pharmacology of cardiovascular disease and skeletal muscle disorders using transgenic mice, metabolic assays and circadian modulation. Recent Ph.D. candidates with research experience in molecular/cellular biology, biochemistry and/or physiology are encouraged to apply. Previous experience with mouse physiology and animal handling is preferred but not required. The ideal candidate should work well in teams as well as independently and be organized, self-motivated and hardworking. The laboratory is committed to support postdoctoral fellows with any career aspirations (academia, industry, etc.).
Contact: Mattia Quattrocelli, PhD   **Email Address: Mattia.Quattrocelli@cchmc.org**

Research Fellow Job Number: 112436. A postdoctoral Research Fellow position is available in Dr. Katherine Yutzey's laboratory in the Division of Molecular Cardiovascular Biology in the Heart Institute. The Yutzey lab investigates molecular mechanisms of heart development and disease with the long-term goal of identifying new therapeutics for cardiovascular disease. (**http://www.cincinnatichildrens.org/bio/y/katherine-yutzey/**) Possible projects include mechanistic studies of valve development and disease, cardiac fibrosis, and cardiomyocyte proliferation/regeneration using human, mouse, porcine and avian systems. The Heart Institute at Cincinnati Children's provides a strong training environment in cardiovascular biology with multiple investigators examining aspects of heart development and disease mechanisms. Candidates with a recent PhD and a strong background in molecular and cellular biology are encouraged to apply.

Contact: Katherine Yutzey, PhD   **Email Address: Katherine.Yutzey@cchmc.org**

Research Fellow Job Number: TBD. Dr. Molkentin's laboratory studies the molecular mechanisms of heart and skeletal muscle disease (http://www.cincinnatichildrens.org/research/divisions/m/mcb/labs/molkentin/default/). Major focus areas include mitochondrial-dependent mechanisms of non-apoptotic death (such as cellular necrosis), signal transduction in cardiac and skeletal muscle hypertrophy, transcriptional regulation of cardiac development, and molecular mechanisms that underlie skeletal muscle degeneration in muscular dystrophy (MD). Dr Molkentin is an HHMI investigator. Outstanding new PhD graduates with prior experience in mouse genetics & cardiomyopathy research and the desire to be competitive at the highest level are invited to apply.

Contact: Jeffrey Molkentin, PhD   **Email Address: Jeffrey.Molkentin@cchmc.org**

Development, Genetics, Reproduction, Physiology, and Disease

Research Fellow Job Number 118380. The Spearman laboratory seeks a postdoctoral investigator to work on the interaction of HIV with cells of the central nervous system (CNS). The interactions of HIV with microglia and potentially other cells in the CNS are likely to modulate the occurrence of HIV-associated neurocognitive disorders. We are studying HIV-infected microglia and developing cerebral organoid models for the study of HIV interactions with and effects on the brain. The ideal candidate for this position will have a doctoral degree and experience with tissue culture, use of molecular techniques, and the design of creative experiments. Valuable experience would include culturing of induced pluripotent stem cells (iPSCs), microscopic skills including immunofluorescence analysis, and analysis of cell types and activation using transcriptomics.

Contact: Paul Spearman, MD   **Email Address: Paul.Spearman@cchmc.org**

Research Fellow Job Number: 118941. There is an immediate opening for a postdoctoral Research Fellow in the Ghandi Lab. This position will perform research (under the supervision of the PI) to discover specific mechanisms of liver injury using animal models, human samples and cell culture. The position will investigate intra- and intercellular mechanisms of liver injury and steatohepatitis due to inflammation and immune responses. Candidates with a PhD in molecular biology, cell biology, immunology or a related field are encouraged to apply. Experience in animal models and cell culture is a plus.

Contact: Chandrashekhar Gandhi, PhD   **Email Address: Shekhar.Gandhi@cchmc.org**

Research Fellow/Associate Job Number: 96967. There is an immediate opening for a postdoctoral Research Fellow or Research Associate position in the Division of Clinical Pharmacology at Cincinnati Children's Hospital Medical Center. The research is focused on the application of pharmacokinetic/ pharmacodynamic/ pharmacogenetic and disease modeling and clinical trial simulation to facilitate pediatric drug study design and improve individualized patient care. The Fellow will work with faculty at CCHMC on population pharmacokinetic –pharmacodynamics (PK/PD) and pharmacogenetic modeling as well as mechanistic physiologically –based pharmacokinetic (PBPK) modeling of drugs in pediatric patients participating in ongoing studies at our institution. Emphasis will also be on the design of informative studies using modeling and simulation in neonates and infants including patients on ECMO and cardiopulmonary bypass. The Research Fellow/Associate will have an opportunity to be involved in the development and evaluation of novel advanced numerical and computation approaches for disease progression/improvement modeling. Candidates must have a PhD, PharmD, or MD in Pharmacokinetics, Pharmaceutical sciences, Pharmacy, Biostatistics or related discipline at the time of appointment. The ideal candidate should have working knowledge of PK/PD modeling and simulation, including some statistical principles (nonlinear mixed effects modeling, Bayesian statistics, and clinical trial simulation). Strong programming skills in R language are desired. Prior experience and knowledge related to PBPK software such as Simcyp and to biologics and therapeutic proteins would be a plus. The candidate is expected to have the capability of working with a multi-disciplinary team and to learn and integrate knowledge across different therapeutic areas. Good communication skills including oral and written English language skills are required. Details about project areas and previous publications can be found at: http://www.cincinnatichildrens.org/research/divisions/c/pharmacology/team/

Contact: Michael Bennett, PhD   **Email Address: Research@cchmc.org**

Research Fellow/Associate Job Number: 108969/108972 A Postdoctoral Research Fellow position is available immediately in Dr. Jason Tchieu's laboratory in the Division of Developmental Biology. The Tchieu lab investigates the molecular mechanisms that underlie neurodevelopmental disorders using human pluripotent stem cell-derived cell types as a model. More information about our lab is described on our website: www.tchieulab.org. Recent Ph.D. candidates with research experience in molecular/cellular biology, biochemistry and/or neuroscience are encouraged to apply. Previous experience with pluripotent stem cells and directed differentiation is preferred but not required.

Contact: Jason Tchieu, PhD   **Email Address: Jason.Tchieu@cchmc.org**

Research Fellow/Associate Job Number: 113125/113129. The Takebe Lab (http://takebelab.com/) is seeking to recruit a highly motivated research fellow/associate to lead a stem cell and organoid research investigating their potential for understanding human hepato-biliary-pancreatic development and pathogenesis towards therapy. Dr Takebe's lab proposes to take a "reverse reductionism approach" for a holistic mechanistic understanding of the dynamic nature of a self-developing system. The Takebe lab is also leading newly established Center for Stem Cell and Organoid Medicine (CuSTOM) to facilitate transformative application of organoids for the patients with no cure thru multi-industrial collaboration. Qualified applicants will have MD and/or PhD with peer reviewed research publications. Experience in molecular and cell biology, surgery, neurology, mathematics and/or bioinformatics is a plus.
Contact: Takanori Takebe, PhD   **Email Address: Takanori.Takebe@cchmc.org**

Research Fellow/Associate Job Number: 96767/108979. A postdoctoral research fellow or research associate position is available in Dr. Ziady's laboratory to examine the regulation of Nrf2 activity in CF primary epithelial cells, CF animal models, and tissues from CF patients. We plan to: 1) To determine the step(s) in the Nrf2 activation cascade that are dysfunctional in CF; 2) Examine the mechanism by which CFTR dysfunction results in the dysregulation of Nrf2; and 3) Test pharmacological agents that activate Nrf2 by different mechanisms as potential therapies for Nrf2 dysfunction (https://www.cincinnatichildrens.org/research/divisions/p/pulmonary/labs/ziady). Suitable candidates for the position will be new Ph.D. graduates seeking their first postdoctoral fellowship with a strong background in protein-protein interaction studies as well as biochemistry, along with the study of transcription factor activity. Knowledge of the regulation of redox balance in the cell and experience with proteomics and mass spectrometry would be ideal. Background knowledge in other areas where this inflammatory pathway is relevant (cardiac, pulmonary, and neurological disease) would be beneficial.
Contact: Assem Ziady, Ph.D.   **Email Address: Assem.Ziady@cchmc.org**

Research Fellow Job Number: TBD. Postdoctoral positions are available in the Center for Stem Cell & Organoid Medicine (CuSTOM) at Cincinnati Children's Hospital. CuSTOM is a multi-disciplinary center of excellence integrating developmental and stem cell biologists, clinicians, bioengineers and entrepreneurs with the common goal of accelerating discovery and facilitating bench-to-bedside translation of stem cell and organoid technology. CuSTOM labs study a diversity of topics ranging from the basic biology of stem cells and organoids to the development of new cell-based therapies in our state-of-the-art GMP facility. We invite applications from motivated postdoctoral fellows. Successful candidates must hold the PhD, MD, or MD/PhD degrees with an outstanding publication record and a demonstrated passion for biomedical research.
Contact: Aaron Zorn, PhD   **Email Address: CuSTOM@cchmc.org**

Immunology/Inflammation

Research Fellow Job Number: 118972. Fukun Guo, PhD, has an immediate opening in his lab for a postdoctoral Research Fellow. Dr. Guo's lab investigates the role and mechanisms of Rho family GTPases in T lymphocyte development and function, particularly in the context of tumor immune evasion. Candidates need skills in flow cytometry, animal handling, and basic molecular and cellular biology. Experience in Immunology and Cancer Biology is a plus.
Contact: Fukun Guo, PhD   **Email Address: Fukun.Guo@cchmc.org**

Research Fellow/ Research Associate Job Number: 109967/109760. Dr. Sing Sing Way's laboratory in the Division of Infectious Diseases has an immediate opening for a Research Fellow or Research Associate. The laboratory investigates the immune pathogenesis of infectious diseases and immunological basis of protective immunity. For this position, there is a particular focus on reproductive and/or microbial immunity (http://www.cincinnatichildrens.org/bio/w/singsing-way/). Experience in cellular immunology, flow cytometry, and molecular biology is required.
Contact: Sing Sing Way, MD, PhD   **Email Address: SingSing.Way@cchmc.org**

Research Fellow Job Number: 99449/104634. A position is available immediately in Dr. Marc Rothenberg's laboratory (http://www.cincinnatichildrens.org/research/divisions/a/allergy- immunology/labs/rothenberg/default/), which is focused on allergic responses especially in mucosal tissues such as the lung and the gastrointestinal tract, and aims to understand mechanisms, develop drug targets and identify novel therapeutic strategies and agents. The postdoctorate will be focused on genomics, genetics, molecular immunology, and/or chemistry of several novels susceptibility loci and pathways involved in allergic diseases, and the biochemistry and enzymology of proteases (particularly calpain-14). The postdoctorate will develop, synthesize and/or evaluate small molecule detectors and inhibitors of signaling pathway molecules relevant in allergic diseases. The ideal candidate will have a PhD or equivalent in Biomedical Research with strong expertise in big data analysis, molecular and cellular immunology and/or genetics, Medicinal, Synthetic or Organic Chemistry. A working knowledge of the immune system, genetics and enzymology is preferable.
Contact: Marc Rothenberg, MD PhD   **Email Address: Marc.Rothenberg@cchmc.org**

Research Fellow Job Number: TBD. Dr. Claire Chougnet's laboratory is studying T cell ontogeny during fetal development and how it is altered by exposure to the inflammatory stimuli associated with prematurity. Her laboratory is also studying regulatory T cell function and homeostasis (http://www.cincinnatichildrens.org/research/divisions/i/immunobiology/labs/chougnet/default/). The Chougnet laboratory has an open position for a highly motivated postdoctoral research fellow with an interest in immune regulation, T cell effector function, and/or neonatology. The applicant should have a strong background in cellular immunology, with specific experience including flow cytometry, cell purification and in vitro functional studies.
Contact: Claire Chougnet, PhD   **Email Address: Claire.Chougnet@cchmc.org**

Neurology and Psychology

Research Fellow Job Number: 110754. The CLIPP group (Robert C. Coghill & Christopher D. King) is seeking a postdoctoral fellow interested in receiving advanced training in the investigation of human pain mechanisms across the lifespan, with a particular emphasis on chronic pain in children. The ideal candidate will be independent, highly motivated, and will have a strong background in systems neuroscience, psychology, sensory testing, and/or neuroimaging. This position will involve training in multiple methodologies including sensory testing, psychological assessments, and functional neuroimaging, and work will take place in a dynamic, collaborative, team-oriented environment. Roles include oversight of research coordinators and students, experimental design and execution, analysis of functional neuroimaging data, and manuscript preparation, as well as participating in regulatory oversight of studies. The newly formed Center for Understanding Pediatric Pain (CUPP) will further enhance training opportunities by facilitating interactions with pain researchers and clinician/scientists across multiple departments across the institution.

Contact: Robert Coghill, PhD   **Email Address: Robert.Coghill@cchmc.org**

Research Fellow Job Number: 110755. The Pain Research Center at the Cincinnati Children's Medical Center is seeking a highly motivated postdoctoral candidate to join the laboratory of Dr. Christopher King in the Department of Anesthesia. The position will be geared to understanding the mechanisms and impact of pain in children and in emerging adults. CCHMC treats a large number of patients with a variety of pain conditions including migraine, musculoskeletal pain, post-operative pain and functional abdominal pain, in addition to other conditions associated with pain. Candidates should be interested in working with children, adolescents, and young adults, and should be able to work in a highly collaborative open-lab environment with the faculty at the Pain Research Center including Drs. Robert Coghill and Marina Lopez-Sola. Candidates will be encouraged to develop independent lines of research while working with Dr. King's projects. A number of training opportunities will be available including fMRI, sleep assessments, quantitative sensory testing, and stress. Interested candidates should have received a doctoral degree (e.g., PhD, MD, DO, DMD, DDS, DVM) in related fields (e.g., neuroscience, clinical psychology) by the date of appointment and have experience in pain research. Review of applications will begin immediately and will continue until the position is filled. To apply, the candidate should email a single PDF containing a CV, a personal statement describing research interests and goals, and contact information for three references to Dr. King.

Contact: Christopher King, PhD   **Email Address: Christopher.King@cchmc.org**

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