



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 Associate Job Number: The division of [Emergency Medicine](#) in collaboration with the division of [Biostatistics & Epidemiology](#) at Cincinnati Children's Hospital Medical Center has an immediate opening for a postdoctoral Research Associate. The Research Associate will engage in emergency based clinical research with divisional Faculty and Fellows, including retrospective cohorts, cross-sectional, case control studies and prospective trials as well as quality improvement and implementation studies. This individual will split his/her time between supporting emergency medicine Fellows' projects, teaching research methods, as well as developing his/her own line of research. The division of Emergency Medicine has over 40 faculty and 13 fellows who provide emergency medical care in one of the busiest pediatric emergency departments in the country. The division has robust research infrastructure including approximately 20 clinical research coordinators, as well as data and financial analysts, a research supervisor, financial and a research manager. The division belongs to the [PECARN Network](#), a federally funded network of 18 US pediatric hospitals. There are approximately 50 ongoing studies in the division, including 15 studies directly recruiting patients in the ED. The division receives ~ 4 million dollars/year in grant funding and produces ~ 100-120 publications per year, most of them in high impact journals. 3 or more years of relevant postdoctoral research experience is required. A PhD in Epidemiology with a minor in Occupational Health, Systems Engineering, Human Factors Engineering, Occupational Health Nursing, or related discipline is preferred. Experience in related research or quality improvement is a plus.

Contact: Mekebib Altaye, PhD

Email Address: Mekebib.Altaye@cchmc.org

Research Fellow Job Number: 122599. Cincinnati Children's Hospital Medical Center has embarked on an ambitious initiative called Pursuing Our Potential Together (POPT). One part of this initiative is focused on groundbreaking research efforts in earlier identification and trajectories of the art clinical, genetic, and population knowledge with high-performance computing. The [Pestian Lab](#) seeks a mission driven post-doc interested in collaborating with our world class team of scientists and clinicians. Upon joining our team you will work with CCHMC and Oak Ridge National Laboratory to co-develop computational and technology solutions that identify the early symptoms of pediatric anxiety, depression, and suicide attempts. In particular, you will focus on combining multimodal data and conducting machine learning and natural language processing analysis on the world's most powerful computers. Qualified candidates for the position have earned a Ph.D. in biomedical informatics, computer science, artificial intelligence, computational linguistics, or a closely related field and have experience working in the clinical setting. Research and work experience with Machine Learning and/or Deep Learning is required, and Natural Language Processing (NLP) is preferred. The successful candidate will have an excellent command of both written and oral English, strong programming skills, and familiarity with Linux + (Java or Python) + (R or Matlab) for programming. Experience in parallel computing (e.g., with GPU) and familiarity with clinical NLP is preferred. Candidates with the first-author peer-reviewed journal publications are preferred.

Contact: Stephanie Loos

Email Address: Stephanie.Loos@cchmc.org

Research Fellow Job Number: 120831. The Division of Biomedical Informatics at Cincinnati Children's Hospital Medical Center (CCHMC) invites a postdoctoral Research Fellow to join our digital health initiative: the Design, Analytics, Integration (dAI) program. The fellow will work closely with clinical investigators across the CCHMC and the University of Cincinnati to co-develop computational and technology solutions for improving the lives of children and adults. Candidates will be supervised by the program lead (Dr. Yizhao Ni). He/she will collaborate with other research staff, application developers, and IT technicians within a dynamic, fast paced research environment. Candidates should expect to conduct multiple machine learning and NLP-focused projects and contribute to decision tools, applied patient safety and health care quality improvement efforts.

Contact: Judith Dexheimer, PhD

Email Address: Judith.Dexheimer@cchmc.org

Research Fellow Job Number: 118554. Dr. Alex Miethke's Autoimmune Liver Disease Laboratory seeks a research fellow to perform and analyze single cell genomics studies on liver tissue samples from patients and from animal models of primary sclerosing cholangitis, autoimmune hepatitis, or biliary atresia. These studies will involve cutting-edge, high-dimensional, immune-system measurements (e.g., single-cell RNAseq, scATAC seq, and spatial transcriptomics) and will be analyzed in collaboration with Dr. Miraldi providing expertise in computational and systems biology. Studies will be performed in partnership with other investigators of the Division of Pediatric Gastroenterology focusing on single cell genomics and organoid studies to unravel disease mechanisms of inflammatory liver and gut diseases (including inflammatory bowel disease) to develop novel and targeted therapies. The mathematical modeling frameworks utilized between the Miethke and Miraldi labs 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 studies that will ultimately improve the health of children. The ideal candidate will collaborate closely with other computational biologists in the Divisions of Immunobiology and Bioinformatics, with physicians, and with clinical research coordinators of the Center for Autoimmune Liver Disease (CALD). The Miethke investigative team is dedicated to compassionate translational research for and with patients with autoimmune liver disease and their family members.

Contact: Alexander Miethke, MD

Email Address: Alexander.Miethke@cchmc.org

Research Fellow Job Number: 118503. Dr. Heidi Sucharew has an immediate opening for a postdoctoral Research Fellow in the Division of Biostatistics and Epidemiology. The research fellow will engage in methodological research and participate in collaborative research in stroke. This individual will split his/her time between working on challenging methodological problems in the realm of predictive modeling of stroke recurrence and pragmatic clinical trials, including methods for designing and analyzing randomized studies with planned sample size re-estimation; and getting hands on experience as a collaborative biostatistician, including writing statistical analysis sections for grants and conducting analyses for ongoing projects. Applicants should have an interest in applying novel and state-of-the-art statistical methods in stroke and clinical trial design and management. There will be no shortage of opportunities to collaborate and learn, as well as get involved in real world methodological advancement. The ideal candidate will have a doctoral degree in Biostatistics or Applied Statistics, or equivalent, and experience in analyzing real data and predictive modeling.

Contact: Heidi Sucharew, PhD

Email Address: Heidi.Sucharew@cchmc.org

Research Fellow/Associate Job Number: 118263. 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, physics, medical physics, or chemistry) are encouraged to apply. While all candidate with strong MR backgrounds will be considered, ideal candidates will possess expertise in one or more of the following: pulse programming, image reconstruction/analysis, 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 Job Number 123780. The Chen lab is looking for a passionate postdoctoral fellow with PhD in bioinformatics, computational biology or statistical genetics, who will be involved in the analysis and method development for high-throughput omics (genomics, transcriptomics, epigenomics) and clinical data generated from patients and biological labs focusing on genetic diseases. Besides data analysis and method development, the applicant will communicate scientific ideas and results in terms of oral presentations, research manuscripts and proposals. The ideal candidate will have Ph.D. in bioinformatics, computational biology or statistical genetics or a related discipline. A strong background in genomics, computational biology, and/or statistics, familiarity with high-throughput NGS data, extensive programming, and data visualization experience is required. The ideal candidate will have: an interdisciplinary background in bioinformatics and computational biology and genomics; experience with the analysis and interpretation of multi-omics data; good programming skills; and knowledge of statistics, network analysis and machine learning.

Contact: Jing Chen, PhD

Email Address: Jing.Chen2@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/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 CPIR 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: 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: 119386. The Grimes Lab has an immediate opening for a postdoctoral research fellow to study myeloid hematology/oncology. The fellow will receive dual training in hematology/oncology and informatics (with @nsalomnis). The lab exploits cutting-edge omics tech to answer fundamental biological questions in hematopoiesis, marrow failure and myeloid leukemia. We develop new informatics tools when existing tools are insufficient to resolve the data. For example: [PMID: 32494068](#), [PMID: 30249787](#), [PMID: 30243574](#), [PMID: 29977015](#) and [PMID: 27580035](#). Applicants must have completed a PhD in a related field, display critical and independent thinking skills, enthusiasm for science, and an ambition to succeed.

Contact: Lee Grimes, PhD

Email Address: Lee.Grimes@cchmc.org

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 124582. Dr. Biplab Dasgupta's [laboratory](#) is looking for a highly motivated, self-driven and ambitious postdoctoral researcher to start this winter in the Division of Oncology. Using genetically engineered mouse models and human tissue, the Dasgupta lab has been engaged in cutting-edge research to understand neural stem cell metabolism, genetic and metabolic uniqueness of glioblastoma (a type of brain tumor) subtypes, energy and nutrient sensing signaling pathways in cancer versus normal cellular counterparts and the built-in metabolic vulnerabilities of human cancer cells. We are also deeply interested to understand the mechanisms by which non-genetic factors regulate the incidence and penetrance of human cancer. We have [published our work](#) in highly visible journals including Nature Cell Biology, Nature Communications, PNAS, Cancer Cell, Neuro-Oncology, Cancer Research and Trends in Pharmacological Sciences. Experience in molecular biology including in-depth understanding of molecular cloning, DNA, RNA and protein work and extensive cell culture is required. Some experience in mouse genetics is preferable. Background in cancer biochemistry, metabolism, signaling and genetics will be considered favorably and interest in the above fields is necessary.

Contact: Biplab Dasgupta, PhD

Email Address: Biplab.Dasgupta@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: 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/Associate Job Number: 119996/101446. A postdoctoral Research Fellow or Associate 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//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: 122139. The [Ikegami lab](#) at Cincinnati Children's Hospital Medical Center is recruiting highly motivated postdocs. The Ikegami lab investigates mechanisms of gene regulation, chromosome organization, nuclear envelope functions, cardiovascular diseases, and age-associated diseases. The Ikegami lab uses diverse cutting-edge techniques in functional genomics, bioinformatics, cell engineering, stem cells, microscopy, and cardiac pathophysiology. We welcome candidates with a doctoral degree in biology, medicine, chemistry, physics, engineering, mathematics, or computer science. Candidates interested in quantitative molecular-level understanding of biology and disease processes are encouraged to apply. We also welcome candidates who wish to develop their own research agenda complementary to the current research focuses in the lab.

Contact: Khota Ikegami, PhD

Email Address: Kohta.Okegami@cchmc.org

Research Fellow Job Number: TBD. Dr. Molquentin's laboratory studies the molecular mechanisms of heart and skeletal muscle disease (<http://www.cincinnatichildrens.org/research/divisions/m/mcb/labs/molquentin/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. Molquentin 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 Molquentin, PhD

Email Address: Jeffrey.Molquentin@cchmc.org

Development, Genetics, Reproduction, Physiology, and Disease

Research Fellow Job Number: 119559. Dr. Susanne Wells' [laboratory](#) has an opening for a Research Fellow to use murine and induced pluripotent stem cell models for studies of cancer biology and metabolism. Possible projects include 1.) Studying the biology of proton radiation for the treatment of head and neck cancer. This work will include irradiation of primary tumor cells and organoids; and 2) Working to elucidate the role of the human DEK oncogene in iPSCs and derivative engineered organoids and tumors.

Contact: Susanne Wells, PhD

Email Address: Susanne.Wells@cchmc.org

Research Fellow Job Number: 121573/123983. There is an immediate opening for two Postdoctoral Research Fellows in the Laboratory of Dr. Joo-Seop Park in the Division of Pediatric Urology and the Division of Developmental Biology. The long-term goal of research in the Park Laboratory is to understand how signaling pathways and transcription factors regulate cell fate determination in the kidney and bladder during development, homeostasis, and disease. Candidates with research experience in Developmental Biology or Cell Biology are encouraged to apply. Experience with animal models, particularly mouse models, is a plus, but not required.

Contact: Joo-Seop Park, PhD

Email Address: Joo-Seop.Park@cchmc.org

Research Fellow Job Number 124602. A postdoctoral research fellow position is available immediately in the laboratory of [Dr. Tanya Kalin](#) to study the molecular mechanisms of lung injury, repair, and fibrosis. The position will involve the use of animal models and human cell lines, along with cutting-edge technologies and cell systems in the field. The ideal candidate will have a PhD degree in the biological sciences, a strong laboratory background with an experience in cellular and molecular biology techniques, microscopy, biomaging, and handling small animals (preferable). In addition the candidate must possess the ability to move the research projects forward, both conceptually and experimentally, thinking proactively, consistency, and a motivation to succeed in a focused scientific environment.

Contact: Tatiana Kalin, PhD

Email Address: Tatiana.Kalin@cchmc.org

Research Fellow Job Number 124706. The [Özbudak Lab](#) is looking for a postdoctoral fellow interested in combining interdisciplinary approaches to discover systems-level mechanisms governing spatiotemporal pattern formation during embryonic development. Embryos develop spatiotemporal patterns by encoding and interpreting biological signals in real time. Despite unavoidable fluctuations in gene expression, embryonic development is robust and reproducible, which necessitates several mechanisms buffering stochastic gene expression. A striking example of robust spatiotemporal patterning is the rhythmic segmentation of somites, which are precursors of the vertebral column. Segmentation of somites is controlled by: 1) oscillatory expression of Hes/Her gene family, known as the vertebrate segmentation clock, 2) short-distance Notch signaling, 3) long-distance Fgf, Wnt, and Retinoic Acid signaling gradients and 4) a network of transcription factors integrating outputs of the segmentation clock and the signaling pathways. Errors in this regulatory cascade result in various birth defects, including congenital scoliosis. We combine single-cell microscopy measurements, time-resolved perturbation experiments, biophysical modeling and computational simulations to decipher the mechanism underlying robust spatiotemporal pattern formation and cell fate determination.

Contact: Ertugrul Özbudak, PhD

Email Address: Ertugrul.Ozbudak@cchmc.org

Research Fellow Job Number: 119464. There is an immediate opening for a Postdoctoral Research Fellow in the Jiang Laboratory in the Division of Developmental Biology. The long-term goal of research in the [Jiang Laboratory](#) is to understand and apply mechanisms of mammalian organogenesis to the development of better strategies for diagnosis, treatment and / or prevention of human birth defects. Candidates with research experience in Developmental Biology or Cell Biology are encouraged to apply. Experience with animal models, particularly mouse models, is a plus, but not required. Experience with research in Cellular or Developmental Biology. Experience with mouse genetics/mouse model systems is a plus.

Contact: Rulang Jiang, PhD

Email Address: Rulang.Jiang@cchmc.org

Research Fellow Job Number: 122327. A postdoctoral Research Fellow position available in the Volk laboratory at Cincinnati Children's Hospital, in Cincinnati Ohio (an affordable metro area of more than 2 million people, with access to the arts, great restaurants, excellent schools, and parks). The Volk Lab uses cutting-edge -omics technologies to fundamentally understand how the process of chromatin assembly affects cell state. We specialize in studying healthy and malignant development in the hematopoietic system. Fellows can expect in-depth mentoring and training at the interface of epigenetics and cell biology in a highly collaborative environment. At least one high impact publication and a PhD in a related field are desired. Mouse handling experience and/or experience analyzing -omics datasets is a plus.

Contact: Andrew Volk, PhD

Email Address: Andrew.Volk@cchmc.org

Research Fellow Job Number: 124604. There is an immediate opening for a postdoctoral Research Fellow in the [Kalinichenko Lab](#). The lab is investigating novel transcriptional mechanisms critical for embryonic lung development, lung injury/ repair and lung carcinogenesis. The focus is on winged helix/forkhead box (FOX) proteins and their role in regulating cell signaling pathways required for cellular proliferation, differentiation, motility and survival, to ultimately identify novel molecular mechanisms that cause human lung malformations, promote chronic respiratory diseases or contribute to lung cancer. [Our current projects](#) use mouse models with loss-of-function and gain-of function for various FOX genes and novel pharmacological modulators of FOX proteins to identify transcriptional mechanisms impaired in pediatric and adult pulmonary diseases. A PhD in Cell, Developmental, Molecular Biology or a related field is desired. Experience with animal models is a plus.

Contact: Vladimir Kalinichenko, MD, PhD

Email Address: Vladimir.Kalinichenko@cchmc.org

Research Fellow Job Number: 119257. Dr. Kenneth Campbell has an immediate opening for a postdoctoral Research Fellow. The lab studies the development of neural circuits in the mammalian forebrain, particularly those that comprise the basal ganglia. Degeneration of these brain circuits, which control voluntary movements, leads to most of the behavioral changes observed in Parkinson's disease and Huntington's disease. Interestingly, because these neural circuits are responsible for appropriate behavior, they are implicated in childhood neuropsychiatric disorders, such as attention-deficit/hyperactivity disorder (ADHD), obsessive-compulsive disorder (OCD), Tourette syndrome and autism spectrum disorder (ASD). The lab hopes to uncover the molecular genetic mechanisms that control the normal formation of basal ganglia circuits. By disrupting or augmenting these circuits' formation, we hope to learn how normal behaviors are altered. This knowledge will help us generate mouse models of certain behaviors that characterize childhood neuropsychiatric disorders, paving the way for the development of improved therapeutics. Our research group has been instrumental in characterizing the embryonic neural progenitor sources of the different neuronal subtypes that comprise the basal ganglia and broader ventral telencephalic neuronal subtypes. We have also contributed significantly to the current understanding of how these progenitor domains are established in the developing brain. A PhD in Developmental Biology, Molecular and Cellular Biology, Neuroscience, Genetics or related field is desired. Experience with animal models and genomics would be a plus.

Contact: Kenneth Campbell, PhD

Email Address: Kenneth.Campbell@cchmc.org

Research Fellow Job Number 123711. The Guo Lab is seeking to recruit a highly motivated and creative research fellow. The fellow will join a team utilizing stem cells and organoids to investigate their potential as tools for understanding human brain development and pathogenesis with a focus toward therapy. Dr. Guo's lab is leading stem cell research towards building next-generation human brain systems for in vitro study of neurodevelopmental (e.g. Autism, Fragile x syndrome and Schizophrenia) and neurodegenerative disorders (e.g. Alzheimer's disease, Amyotrophic lateral sclerosis and Parkinson's disease) by using cutting-edge brain circuits on-a-chip, multiple organs on-a-chip and innovative brain organoid approaches. The key methodologies used in the laboratory for this project will include stem cell culture derived from patient cells, neural differentiation, organoid culture, immunochemistry, multi-omics sequencing and electrophysiology in order to decipher disease mechanisms from molecular to cellular and circuitry level. The ideal candidate will have a PhD or equivalent degree in Biomedical Research with strong expertise in Developmental biology, Molecular and cellular biology, Neuroscience, Genetics, or related fields. A working knowledge of stem cell biology including induced pluripotent stem cell (iPSC) and direct differentiation, electrophysiology and bioinformatics is preferable.

Contact: Ziyuan Guo, PhD

Email Address: Ziyuan.Guo@cchmc.org

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/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 Job Number: 123042/117206. The Takebe Lab (<http://takebelab.com/>) is seeking to recruit a highly motivated research fellow 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: 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: 117558/. Postdoctoral positions are available for the Zorn, Wells, Takebe and Helmrath labs 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/Associate Job Number 121797. The Troutman Lab, located in the Division of Allergy and Immunology, has an immediate opening for a postdoctoral Research Fellow/Research Associate. The lab is focused on understanding behaviors of tissue immune cells, particularly macrophages and other myeloid cells, during disease. Lab research will combine genetic mouse models, patient samples, and next generation sequencing (NGS) technologies, towards decoding dynamic epigenetic mechanisms controlling gene expression. The applicant will be responsible for cell preparation/purification from tissues, generating submission ready NGS libraries, and data analysis using well established software/pipelines. Resulting hypotheses will be selected for experimental validation, using orthogonal approaches when possible. Ideal candidates will have a PhD or equivalent and experience in animal models of disease, cell biology, genomics, immunology, and/or molecular biology. In the absence of experience, an enthusiasm and willingness to develop expertise in integrative genomics data analysis on the job is also necessary.

Contact: Ty Troutman, PhD

Email Address: Ty.Troutman@cchmc.org

Research Fellow Job Number: 123228. A post-doctoral research position is available in the [Pasare Laboratory](#) to study inflammatory responses downstream of pattern recognition receptors and the cross-talk between innate and adaptive immune systems. We are currently focused on the following projects: 1. Innate control of adaptive immunity with a particular focus on IL-1 family of cytokines: The work focuses on understanding how different pathogens activate the innate immune system to induce tailored immune responses and the molecular pathways involved in pathogen recognition. 2. Role of inflammasome independent IL-1beta in systemic inflammation, auto-immunity and anti-tumor responses: The work focuses on understanding how Effector and memory T cells induce pattern recognition receptor independent inflammation and identification of the molecules and receptors that induce T cell driven innate inflammation. The work has implications for several inflammatory diseases. Highly motivated candidates with a PhD in biomedical sciences and experience in, Biochemistry, Cell biology and Molecular Biology that are interested in doing research in Immunology are encouraged to apply.

Contact: Chandrashekar Pasare, PhD

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Research Fellow Job Number: 122103. Dr. Greg Tiao in the Division of Pediatric Surgery is looking to hire a motivated postdoctoral Research Fellow to join his team which focuses on the mechanisms involved in the development of biliary atresia (BA), which results in the primary need of pediatric liver transplantations worldwide. Studies will determine how the viral tropism for the bile duct cells depend on molecular domains of the virus and on the expression of specific proteins present on the surface of these cholangiocyte cells driving an immune response. Experiments will utilize animal models, cell culture including iPSCs, and human patient samples. Applicant should hold a PhD in immune biology, molecular biology, biochemistry, virology or a related field. Experience with disease animal models, cell culture, and strong understanding of the immune system a plus.

Contact: Kate Langworthy

Email Address: Kate.Langworthy@cchmc.org

Research Fellow/Associate 120797/119533/110268. The Division of Asthma Research is recruiting postdoctoral fellow/associates with an interest in neuroscience and immunology to work on a project related to the mechanism of itch in eczema or atopic dermatitis. The research fellow will work under the supervision of Dr. Gurjit K. Khurana Hershey, Professor of Pediatrics and Director of the Division of Asthma Research. Candidates should have experience in cellular and molecular biology and, preferably neurobiology. The candidate should have effective written and oral communication skills, and work well in teams as well as independently. The candidate should be organized, self-motivated, hardworking, and at least 1 previous first author publication of high-quality research.

Contact: Neeru Hershey, MD

Email Address: Gurjit.Hershey@cchmc.org

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: 109967/109760/119984. 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 novel 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 Chougnnet'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/chougnnet/default/>). The Chougnnet 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 Chougnnet, PhD

Email Address: Claire.Chougnnet@cchmc.org

Neurology and Psychology

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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