![Cincinnati Children's — changing the outcome together]

**Positions Available in various areas
(Click to review details):**

- **Anesthesia**

- **Bioinformatics/**

  **Computational Biology/**

  **Biostatistics/**

  **Epidemiology**

- **Cancer & Blood Diseases**

- **Cardiovascular Research**

- **Genetics, Development, Physiology, and Disease**

- **Imaging Research Center**

- **Immunology/**

  **Inflammation**

**Click here to apply online and use the relevant job number.**

**Questions?
Please contact:
Tamiika Hurst, PhD or
Uma Sivaprasad, PhD,
Scientist Recruiters:
research@cchmc.org**

# **Postdoctoral Positions at Cincinnati Children's**

## **Cincinnati Children's Research Foundation**

**Cincinnati Children's Research and Training at a Glance:**

- Among the top in NIH funding for pediatric research institutions
- Over **1.4 million square feet** of research laboratory space
- **900+ scientists** conducting basic, translational, and clinical research
- Over **2000 publications** annually in top-tier journals
- Access to Employee Resource Groups and **Mentorship** programs
- Postdocs have gone on to careers in academia, biotech, pharma, teaching etc.

**Learn more about the Postdoctoral Fellowship Program**

Scan to learn more about the Research Foundation

**Compensation and Benefits:**
Postdoctoral Research Fellows and Associates are eligible for:

- Group Health, Dental, and Vision Insurance Plans
- Paid Time Off
- Retirement Plan
- Tuition Reimbursement
- Relocation benefits for eligible hires

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Learn more about Cincinnati, living here and get to know the neighborhoods!!

**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 describing your research interest, CV, 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. 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 underlying mechanisms and disparities, the lab is seeking a research fellow who has background/expertise in one or more of these areas - brain imaging, bioinformatics, PK/PD modeling, immunology, and genomics. The work to be done is clinical/translational research – the fellow will be focused on recruitment of study participants, experimental design, data analysis and interpretation, manuscripts preparation, and supporting grant writing efforts. PhD graduates with any combination of experience in one or more areas listed above, 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**

**Research Fellow Job Number: 128643.** The Danzer laboratory in the Center for Pediatric Neuroscience is seeking a postdoctoral researcher to investigate basic mechanisms of temporal lobe epileptogenesis. The principal goal of this research is to determine the mechanisms by which altered mechanistic target of rapamycin (mTOR) signaling disrupt hippocampal circuit function and lead to the development of epilepsy. The research has the potential to lead to new therapies to treat epilepsy, which will be tested in preclinical studies. The fellowship will provide training opportunities in EEG/ECoG acquisition and analysis, confocal and two-photon live imaging, hippocampal circuitry, calcium imaging, optogenetics, DREADDs, transgenic models of epilepsy and grant writing/manuscript preparation. The ideal candidate will have a doctoral degree in a relevant field along with experience in basic wet lab techniques and animal handling. The CCHMC campus sits adjacent to the affiliated University of Cincinnati Medical Center, and combined faculty at the two institutions includes more than 60 basic neuroscience labs as well as active graduate student and postdoctoral programs.
**Contact: Steve Danzer, PhD**          **Email Address: Steve.Danzer@cchmc.org**

# Bioinformatics/ Computational Biology/ Biostatistics/ Epidemiology

**Research Associate Job Number:122598.** 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 research/quality improvement is a plus.
**Contact: Mekibib Altaye, PhD**          **Email Address: Mekibib.Altaye@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 (dAIn) 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. They 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 (CALD) 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 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 123780.** The Chen lab is looking for a passionate postdoctoral fellow (recent PhD) or research associate (PhD & 3+ years postdoc experience) with a doctoral degree 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 Job Number: 97786.** Dr. Theresa Alenghat's laboratory has an opening for a highly motivated postdoctoral research fellow interested in epigenetics, intestinal epithelial biology, and host-microbe interactions (http://www.cincinnatichildrens.org/research/divisions/i/immunobiology/labs/alenghat/default/). We explore pathways that regulate how intestinal microbiota impact immune and metabolic homeostasis, infection, and inflammatory bowel disease. Candidates with publications reflecting expertise in epigenetics, immunology, and/or bioinformatics analyses are encouraged to apply.

**Contact: Theresa Alenghat, VMD, PhD**          **Email Address: Theresa.Alenghat@cchmc.org**

**Research Fellow Job Number: 126873.** Dr. Rhonda Szczesniak, Professor of Pediatrics, and Dr. Cole Brokamp, Assistant Professor of Pediatrics have an opening for a postdoctoral research fellowship in geospatial data science and longitudinal forecasting with a focus on public health and healthcare applications.  This exciting opportunity will be supported by two major NIH-funded awards ("Mapping environmental contributions to rapid lung disease progression in cystic fibrosis" and "A Framework for Automated and Reproducible Geomarker Curation and Computation at Scale") and will engage with the overlapping interdisciplinary teams of scientists leading these two projects. At least two years of funding are available to support a mix of: geospatial data science / geoinformatics tool development, including geocoding and geomarker assessment tools for nationwide multi-site studies (https://degauss.org); development and maintenance of a satellite-based machine learning model for high resolution prediction of ambient hourly air pollution concentrations; geomarker-enhanced dynamic predictions of lung health for point-of-care diagnostics; spatial data analysis for national mapping of lung health in diseased populations. The ideal candidate will have a recent PhD in statistics, computer science, informatics, biostatistics, or quantitative epidemiology. Experience programming with R and Git preferred. Candidates who can also demonstrate excellent technical and scientific writing skills are encouraged to apply.

**Contact: Cole Brokamp, PhD**          **Email Address: Cole.Brokamp@cchmc.org**

**Research Fellow Job Number: 127019.** The Mersha Lab has an opening for a Research Fellow who will be involved in a combined computational and applied genetics project, focused on the development and implementation of ancestry-based detection and characterization of genetic and environmental exposure risk factors in asthma. The successful applicant will be part of the Population Genetics, Ancestry, and Bioinformatics (pGAB) Laboratory led by Dr. Mersha that applies computational and statistical analysis to interpret genomics and epigenomics data generated from subjects with asthma and asthma-related allergic diseases. Projects may include genetic pathways/networks and public functional annotation data mining. Completion of a Doctoral Degree in statistics, biostatistics, computational biology, statistical genetics, genetic epidemiology, or machine learning field related fields with 0-3 years postdoctoral experience is required. Candidates with outstanding programming skills in R, Python, Java, and Unix shell scripting are encouraged to apply.
**Contact: Tes Mersha, PhD**                                    **Email Address: Tesfaye.Mersha@cchmc.org**

**Research Associate Job Number: 125566.** The Ikegami lab at Cincinnati Children's Hospital Medical Center is recruiting Research Associates in the field of computational genomics. 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. Candidates must have a doctoral degree in biology, medicine, chemistry, physics, engineering, mathematics, or computer science. We seek candidates who have a PhD and a strong background in computer science, bioinformatics, quantitative biology, and/or biostatistics. Candidates interested in quantitative and predictive description of gene expression, chromosome organization, and cardiovascular disease progression are encouraged to apply.
**Contact: Kohta Ikegami, PhD**                                    **Email Address: Kohta.Ikegami@cchmc.org**

**Research Fellow Job Number: 129833.** The Brugmann Lab is looking for a postdoctoral fellow interested in combining developmental and computational biology to further our understanding of craniofacial development and disease. Craniofacial abnormalities (CFAs) are associated with approximately one-third of all birth defects. The laboratory focuses on understanding the molecular, cellular, and genetic factors that guide craniofacial development. To do so, we have focused on the function of the primary cilium, a ubiquitous, microtubule-based organelle used by all cells to integrate and transduce molecular signals. We aim to elucidate how primary cilia function during facial development and uncover how basic cellular processes are impacted when cilia are impaired. To achieve this goal, we generate and analyze large data sets (RNA-seq, ChIP-seq, CUT&RUN) from animal (murine and avian) and human (iPSC) ciliopathic models. Interested candidates must have a PhD and have a strong record of accomplishments and experience in 1) Developmental biology, Molecular biology, Craniofacial biology, Ciliary biology; OR 2) Bioinformatics, computational biology. We are looking for a colleague who is highly motivated and independent. Relevant publications: eLife 2020 PMID: 33006313.
**Contact: Samantha Brugmann, PhD**                         **Email Address: Samantha.Brugmann@cchmc.org**

# Cancer and Blood Diseases

**Research Associate Job Number: 130863.** The Hematology Gene and Cell Therapy Program has an excellent opportunity for a talented researcher to join our highly collaborative team of research scientists and clinical researchers working on gene therapy, gene editing for hematopoietic disorders, and animal models of human diseases. The Malik lab has a successful track record in gene therapy studies on hematopoietic stem cell disorders (see publication list in link) and have translated these efforts into clinical trials for these diseases. The lab is now focused on gene editing for with a focus on designing platforms that primarily mediate homology directed repair. We have an exciting opportunity for a talented Research Associate to lead a gene editing project, taking advantage of existing expertise in human hematopoietic stem cell xenograft models, mouse models of these genetic disorders, lentiviral gene therapy trials, single-cell sequencing, CRISPR/Cas gene editing and patient-derived hematopoietic stem cells. The successful applicant will work with a team of experimental biologists to generate high quality in vitro and in vivo data that can result in publications, grant applications, & career development to a faculty level position in 2-3 years. The ideal candidate will have: a PhD with 3+ years postdoc experience in hematology or hematopoiesis, molecular biology, molecular biology, genetics, immunology, or a related discipline; vision and passion for hematopoietic disease & desire to contribute to discovery research; evidence of a strong first author publication record; enjoy staying abreast of new genomic and cellular technologies, methodologies; an open and collaborative approach to scientific research; value a positive team culture; demonstrated experience in the design, analysis, and interpretation of experiments; growing scientific independence with an ability to solve problems; line-management/supervisory experience, with a strong desire to further develop leadership skills; attention to detail and ability to work to tight timelines; ability to communicate effectively across disciplines with basic, clinical, and computational scientists.
**Contact: Punam Malik, MD**                                    **Email Address: Punam.Malik@cchmc.org.**

**Research Fellow Job Number: 131035.** A Postdoctoral position is now available in the laboratory of Dr. Damien Reynaud. The Reynaud lab studies hematopoiesis in various physio-pathological contexts. We are interested in understanding how metabolic disorders such as obesity and diabetes impacts the hematopoietic stem cell functions (Lee et al, J.Exp Med 2018; Govindarajah et al, Blood advances 2020). The Research fellow will particularly investigate the interplay between gestational diabetes, the hematopoietic system, and the long-term pathologies associated with gestational diabetes, such as atherosclerosis. We are looking for a highly motivated and enthusiastic individual to develop our thematic. Applicants should have a strong experience in molecular and cellular biology. Candidates with a recent PhD and a background in hematology and/or immunology are encouraged to apply.
**Contact: Damien Reynaud, PhD**                              **Email Address: Damien.Reynaud@cchmc.org**

**Research Fellow Job Number: 130600.** The Robinson Lab is recruiting a postdoctoral fellow to participate in a Gilbert Family Foundation-funded research project that aims to develop adeno-associated viral vectors targeting tumors of the peripheral nervous system in mouse models of neurofibromatosis type 1. Ideal candidates will have experience with tissue culture and molecular biology techniques needed to assay the response of tumor cells to viral therapies, including Western blot, ELISA, RNA-seq, etc. Experience

with cloning, recombinant DNA technology, and in vivo assessment of tumor biology is a plus. We are committed to improving equity in neuroscience and strongly encourage applicants from diverse backgrounds to apply.

**Contact: J. Elliott Robinson, MD, PhD**　　　　　　　**Email Address: Elliott.Robinson@cchmc.org**

**Research Fellow Job Number: 129938.** A postdoctoral position is available in the laboratory of Dr. Lisa Privette Vinnedge in the Division of Oncology. The laboratory uses cell culture, primary patient samples, and mouse models to study the molecular and cellular basis of breast cancer biology, as well as mouse models to study mammary gland development. We are looking for a research fellow with an interest in one or more of the following: genome organization and maintenance, molecular and cellular responses to radiation, and/or signal transduction. The applicant must have a PhD degree in Biology, Cell/Cancer Biology, Molecular Biology, Genetics, or related field, be highly motivated, and have a track record of first-authored publications. Applicants with a strong background in cellular and molecular biology, with experience in genetic mouse models, histology, and/or flow cytometry are encouraged to apply.

**Contact: Lisa Privette Vinnedge, PhD**　　　　　　**Email Address: Lisa.Privette@cchmc.org**

**Research Fellow Job Number: 129141.** The Filippi lab is recruiting a motivated postdoctoral fellow with interest and expertise in Hematopoiesis and Hematopoietic Stem Cell functions. Our laboratory has several exiting projects focusing on the regulation of hematopoietic stem cell (HSC) self-renewal under regenerative conditions and during aging. We are addressing fundamental and important questions about the role of stress signaling pathways, mitochondrial metabolism and innate immune signaling on HSC functions, how these pathways contribute to the functional decline of the hematopoietic system after regenerative stress and how these stress-related pathways contribute to secondary neoplasms, including bone marrow failure and myelodysplastic syndromes. The lab uses state-of-the-art imaging technologies, multi-omics approaches, extensive mouse models and patient specimen. Candidates must hold a Ph.D. and/or M.D. degree and should possess strong laboratory and analytical skills, and 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: 128215.** A Research Fellow position is available immediately to work with Dr. Elisa Boscolo. The Boscolo lab studies vascular malformations and vascular tumors, endothelial cell biology and the role of TIE2 and Gαq signaling. In addition, the lab focuses on translational studies to identify new therapeutic targeted drugs for vascular anomalies affecting children.

**Contact: Elisa Boscolo, PhD**　　　　　　　　　**Email Address: Elisa.Boscolo@cchmc.org**

**Research Fellow/Associate Job Number: 129606:** A postdoctoral research fellow position is available in the Proton Therapy Center with Drs. Susanne Wells and Yi Zheng, to study basic and translational mechanisms of cancer therapy by proton versus X-ray radiation. Research will be carried out in patient treatment rooms. The fellow will utilize primary tumors, 3D organoids and PDX models to define differences in molecular and cellular consequences of such radiation. These will be leveraged to discover radiation sensitizers and type-specific markers. With a view to rapid translation, the fellow is expected to effectively communicate findings with a team of clinicians and researchers. Highly motivated individuals with a recent Ph.D., M.D. or M.D./Ph.D. and a background in cellular and molecular biology, radiation biology, DNA repair, biochemistry, tissue engineering and/or cancer biology are encouraged to apply. Evidence of scientific accomplishment is required, and bioinformatics skills are desirable.

**Contact: Susa Wells, PhD and Yi Zheng, PhD**　　**Email Address: Susanne.Wells@cchmc.org; Yi.Zheng@cchmc.org**

**Research Fellow/Associate Job Number: 127668:** A postdoctoral research fellow position is available in Dr. Susanne Wells' laboratory to conduct molecular and metabolomic studies of squamous cell carcinoma in cellular, organoid, and animal models. Highly motivated individuals with a recent Ph.D., M.D. or M.D./Ph.D. and a background in cellular and molecular biology, biochemistry, tissue engineering and/or cancer biology are encouraged to apply. Evidence of scientific accomplishment is required, and bioinformatics skills are desirable.

**Contact: Susa Wells, PhD**　　　　　　　　　　**Email Address: Susanne.Wells@cchmc.org**

**Research Fellow Job Number: 125614.** Dr. Soona Shin's laboratory is looking for a postdoctoral research fellow who will investigate the molecular mechanism of childhood liver cancer using animal and cell culture models. The ideal candidate will have a recent PhD degree in biology or a related field, with a familiarity with basic molecular biology techniques and cell culture, along with a strong interest in liver cancer research. Experience with mouse models is preferred but not required.

**Contact: Uma Sivaprasad, PhD (on behalf of Soona Shin, PhD)**　　**Email Address: research@cchmc.org**

**Research Fellow Job Number: 129673.** The Lucas lab is actively recruiting a Research Fellow to understand the biology of hematopoiesis in the bone marrow and other tissues. The Research fellow will drive hypothesis generation, experimental design, assay development/optimization, experimental execution, data analysis, and manuscript preparation and revisions. There will also be opportunities to mentor and train graduate students and research assistants in the laboratory. Minimum qualifications are a PhD or MD in basic or health sciences or bioinformatics and at least one first author publication from their graduate studies. Experience in flow cytometry, confocal microscopy, or bioinformatics will be a plus.

**Contact: Daniel Lucas, PhD**　　　　　　　　　**Email Address: Daniel.Lucas@cchmc.org**

**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 @nsalomonis). 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: 114655.** The Ware Lab has an immediate opening for a postdoctoral research fellow to study erythroid differentiation. The fellow will work to understand the effects of hydroxyurea on fetal hemoglobin induction and genetic variants that affect the treatment response. Applicants must have completed a PhD in a related field, display critical and independent thinking skills, and have experience with molecular biology.
**Contact: Russell Ware MD, PhD**                **Email Address: Russell.Ware@cchmc.org**

**Research Fellow Job Number: 126637.** Dr. Jose Cancelas' lab studies the molecular and cellular basis of normal and malignant hematopoiesis and blood/cell therapies. We are looking for a research fellow with an interest in one or more of the following: signal transduction, hematopoietic stem cells, pluripotent stem cell-based disease modeling in hematopoiesis, mouse cancer genetic models, inflammation in hematopoiesis and hierarchical organization of hematopoiesis in health and disease. The applicant should have a doctoral degree in Biology, Molecular Biology, Genetics, Immunology, or related field, and a strong interest in blood/cancer research. The applicant should also be highly self-motivated and have a track record of publications (first-authored publications in respected journals). Applicants with experience in hematology, immunology, mouse genetics, flow cytometry and/or bioinformatics analyses are a plus.
**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. Dr. Jianqiang Wu is looking to recruit a postdoctoral Research Fellow who 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 of specific inhibitors in a neurofibroma mouse model. 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 Fellow Job Number: 125595.** 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. 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**

# Cardiovascular Research

**Research Fellow Job Number: 130279.** The Ikegami lab at is recruiting highly motivated postdocs interested in cardiovascular biology. The current focus of the lab research is the molecular basis of diseases caused by nuclear envelope dysfunctions, such as heart diseases, cancer, and age-associated diseases. We utilize diverse cutting-edge techniques in functional genomics, mouse genetics, cardiac pathophysiology, cell engineering, stem cell differentiation, and microscopy. Candidates interested in the interface of chromosome biology, mechanobiology, and systems biology of the immune system are encouraged to apply. We also welcome candidates who wish to develop their own research agenda complementary to the current research focus in the lab.
**Contact: Kohta Ikegami, PhD**                **Email Address: Kohta.Ikegami@cchmc.org**

**Research Fellow Job Number: 126493.** The Millay lab has an opening for a postdoctoral fellow with experience in cell biology, biochemistry, or structural biology to work on exciting projects related to the mechanisms of muscle cell fusion. Our lab discovered the muscle-specific fusogens (Myomaker and Myomerger) that control the membrane fusion reaction in muscle cells, and we utilize cutting-edge technologies to understand how these proteins work. Applicants should have completed a PhD in a related field, possess independent thinking skills, and an excitement for science.
**Contact: Douglas Millay, PhD**                **Email Address: Douglas.Millay@cchmc.org**

**Research Fellow Job Number: 131036.** Postdoctoral positions are available in the Waxman lab at Cincinnati Children's Hospital Medical Center. Congenital heart defects are very common within newborns. The Waxman Lab uses zebrafish as its primary model to elucidate mechanisms underlying normal and improper vertebrate heart development. Current research in the lab employs genetic, cellular, and molecular tools to elucidate signaling pathways and transcriptional determinants of vertebrate cardiac chamber size and regeneration. Ideal applicants are motived, creative individuals that have recently obtained a PhD or will obtain a PhD in the near future with a desire to perform research in a fun, collaborative, and supportive lab environment. Candidates ideally will have experience with some molecular biology, genetic, and imaging techniques from their graduate work. However, experience using zebrafish or studying cardiovascular development is not a requirement.
**Contact: Joshua Waxman, PhD**                **Email Address: Joshua.Waxman@cchmc.org**

**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 foci in the lab.
**Contact: Kohta Ikegami, PhD**                **Email Address: Kohta.Ikegami@cchmc.org**

# Development, Genetics, Reproduction, Physiology, and Disease

**Research Fellow Job Number: 130439.** A postdoctoral position is available immediately in the laboratory of Juan Sanchez Gurmaches in the Division of Endocrinology. The long-term goal of our research is to identify new therapeutic approaches to treat/prevent obesity derived pathologies by understanding the physiologic and pathologic fundamental mechanisms that control adipose tissue development, growth, and metabolism. We exploit novel genetically modified mouse and cell culture models and a combination of imaging, genomics, genetics and metabolomic techniques to identify new transcriptional, signaling and metabolic mechanisms controlling adipocytes and adipocyte progenitors. Our work also involves patient derived iPSC, pediatric samples of white and brown fats and to understand the mechanisms associated to new genetic variants associated to very early obesity disorders. We are seeking creative recent graduates (PhD, MD, or MD/PhD) with peer-reviewed publications, a high capacity for independent thinking, collaborative work, and problem-solving with a strong interest in our area of research. Experience in mouse studies, cell culture techniques, molecular biology, biochemistry, developmental biology, metabolism, and/or microscopy is a plus.
**Contact: Juan Sanchez Gurmaches, PhD**      **Email Address: Juan.SanchezGurmaches@cchmc.org**

**Research Fellow Job Number: 130011.** A postdoctoral position is available immediately in the laboratory of Prof. Richard Lang in the Visual Systems Group and Science of Light (SOL) Center. The Lang lab uses mouse models and genetic methods to understand how the atypical opsins OPN3 (encephalopsin), OPN4 (melanopsin) and OPN5 (neuropsin) regulate light-dependent development and homeostasis (Relevant publications: Rao et al., Nature , 2013; Nguyen et al., Nature Cell Biology , 2019; Nayak et al., Cell Reports , 2020; Zhang et al., Nature , 2019; Jiang et al., PNAS, 2021). We are seeking highly motivated applicants to investigate light receptors, circadian biology and nervous system development. The ideal candidates will have a PhD in genetics, molecular, cell, or developmental biology (or similar). A thorough theoretical and practical grounding in molecular and cell biology is a prerequisite, and knowledge within the fields of circadian biology and photoreceptors is an advantage. Experience with mouse models is a plus. The fellow is expected to work both independently and as part of an interactive team. The applicants should have excellent oral and written communication skills, good computer skills and understand the basics of quantitative analysis.
**Contact: Richard Lang, PhD**      **Email Address: Richard.Lang@cchmc.org**

**Research Fellow Job Number: 129834.** The Brugmann Lab is looking for a postdoctoral fellow interested in skeletal biology related to craniofacial development and disease. Surgical repair of craniofacial abnormalities (CFAs) is difficult and often requires a large source of skeletal tissue to replace/reconstruct the facial skeleton. Bone grafts used to repair CFAs are commonly allografts from mesodermally derived bone, which is suboptimal since the facial skeleton is embryonically derived from an entirely different population of cells called neural crest cells (NCCs), which have never been utilized as a source of material for reconstruction due to their transient embryonic nature and poorly understood properties. The Brugmann laboratory focuses on understanding the molecular, cellular, and genetic factors that guide NCC development into craniofacial skeletal tissues, in hopes of generating tissues amendable for surgical repair. To address these processes, we utilize both animal (murine and avian) and human (iPSC) models. Interested candidates must have a PhD and have a strong record of accomplishments and experience in 1) Developmental biology, Molecular biology, Craniofacial biology, skeletal biology; OR 2) Stem cell biology We are looking for a colleague who is highly motivated and independent.
**Contact: Samantha Brugmann, PhD**      **Email Address: Samantha.Brugmann@cchmc.org**

**Research Fellow Job Number: 126640.** Dr. SK Dey is looking for a postdoctoral Research Fellow to join the research team whose interests fall into two broad categories: embryonic implantation and pregnancy, and reproductive cancers. Using genetically engineered mouse models, we work to define the uterine characteristics and circumstances necessary for successful embryo implantation, the implications of uterine ageing and the origins of reproductive carcinomas. The ideal candidate will have received a very recent PhD, MD/PhD, or equivalent degree in biomedical research & demonstrate high enthusiasm for research in basic reproductive sciences in female reproduction. Familiarity with contemporary techniques in molecular/cellular biology & mouse handling/ reproduction, breeding and surgeries in small animals along with experience in common laboratory techniques is a must.
**Contact: SK Dey, PhD**      **Email Address: sk.dey@cchmc.org**

**Research Fellow Job Number: 121573.** 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: 117558**. A postdoctoral position is available at the Center for Stem Cell & Organoid Medicine (CuSTOM) at Cincinnati Children's Hospital. The Helmrath lab seeks a motivated collaborative postdoctoral fellow to investigate single cell genomics of human GI organoids in regenerative medicine. Studies will focus on bioengineering nextgen multilineage organoids and defining the genetic/epigenetic regulation of the mesenchymal niche that supports engraftment during transplantation. 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 organoid technology. Successful candidates must hold the PhD, MD, or MD/PhD degrees be highly motivated and have passion for collaborative research. Experience with computational biology and/or human pluripotent stem cells is an advantage.
**Contact: Michael Helmrath, MD**      **Email Address: Michael.Helmrath@cchmc.org**

**Research Fellow Job Number: 122940. Research Associate Job Numbers: 130614 & 130617.** The Center for Stem Cell & Organoid Medicine (CuSTOM) at Cincinnati Children's Research Foundation, USA is a multi-disciplinary team of scientists, clinicians and entrepreneurs using advances in developmental biology and stem cell technologies to revolutionize personalized medicine and improve patient care. In 2019, the new state-of-art CuSTOM Accelerator laboratory has been created to address major challenges posed to bench-to-bedside translation of stem cell research and accelerate the development of organoid medicine. At CuSTOM

Accelerator we work at the intersection of academia and industry to develop organoid-based platforms able to bridge preclinical and clinical phases of drug development and revolutionize personalized medicine. CuSTOM Accelerator is now preparing to advance organoid technology toward regenerative medicine and highly predictive screening tools for drug safety & efficacy as such is seeking a Research Fellow as a key participant in these efforts. This is an exciting opportunity to work closely with multiple functional groups and be part of the development of a new and exciting technologies.

**Contact: Magdalena Kasendra, PhD** **Email Address: Magdalena.Kasendra@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: 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: 121911.** A postdoctoral position is available in the Wells lab 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: James Wells, PhD** **Email Address: CuSTOM@cchmc.org**

**Research Fellow Job Number: 119257.** Drs. Kenneth Campbell and Brian Gebelein have an immediate opening for an NIH-funded postdoctoral Research Fellow. The labs study the development of the brain and in particular the basal ganglia. The focus of the project is on the transcriptional control of basal ganglia neuronal specification/differentiation and specifically, the role of the homeobox protein Gsx2 in this process (see e.g. Roychoudhury et al., (2020) 147: dev185348 and Salomone et al., (2021) 35: 157-174). The main goal of the project is to uncover the gene regulatory networks underlying basal ganglia neurogenesis using mouse and human molecular genetics coupled with genomics, transcriptomics and phenotype analyses. Our research group has been instrumental in characterizing the embryonic neural progenitor sources of basal ganglia neuronal subtypes together with 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 are a plus.

**Contact: Kenneth Campbell, PhD** **Email Address: Kenneth.Campbell@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 (HAND). We are studying HIV-infected microglia and developing cerebral organoid models for the study of HIV interactions with and effects on the brain. Our work on the development of iPSC-derived microglia as an HIV infection model was recently published in Retrovirology [PMID 33213476]. 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: 116903.** There is an immediate opening for a postdoctoral Research Fellow in the Division of Clinical Pharmacology. The research focuses 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 across divisions 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 research studies. 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 will help develop and evaluate 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 modelling and simulation, including some statistical principles (nonlinear mixed

effects modelling, 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.
**Contact: Holly Ward** (on behalf of Dr. Sander Vinks)  **Email Address: Holly.Ward@cchmc.org**

**Research Fellow Job Number: 123042/117206.** The Takebe Lab 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 (staff scientist) position is available in Dr. Assem Ziady's laboratory for PhD graduates with outstanding writing skills to write/edit grant proposals, manuscripts for publication, Institutional Review Board protocols, conference presentations, and/or other documents as needed. The Ziady lab studies Cystic Fibrosis (CF). Focus areas are 1) development of biomarkers of lung function decline in chronic lung disease; 2) understanding the regulation of Nrf2 activity and identify various interventions as therapy for Nrf2 dysfunction; and 3) examine and further develop non-viral DNA delivery vectors for CF gene therapy. The ideal candidate will have a PhD in a relevant field, a strong publication record with demonstrable ability to prepare manuscripts and grants, as well as data analysis and interpretation. A background in research relevant to the work done in the lab would be beneficial.
**Contact: Assem Ziady, PhD**  **Email Address: Assem.Ziady@cchmc.org**

**Research Fellow Job Number: 112135.** A postdoctoral research fellow position is available in Dr. Assem Ziady's laboratory to study Cystic Fibrosis (CF). Focus areas are 1) understanding the regulation of Nrf2 activity and identify various interventions as therapy for Nrf2 dysfunction; and 2) examine and further develop non-viral DNA delivery vectors for CF gene therapy. These studies will use CF primary epithelial cells, CF animal models, and tissues from CF patients. The ideal candidates for the position will be recent PhDs with a strong background in one or more of the following: protein-protein interaction studies, redox biology, biochemistry, transcription factor activity, protein biomarker identification, animal models of disease. Experience with proteomics and mass spectrometry would be ideal. Evidence of strength in experiment design, data analysis, and a strong publication record are strongly desired. Background knowledge in other areas where this inflammatory pathway is relevant (cardiac, pulmonary, and neurological disease) is beneficial.
**Contact: Assem Ziady, PhD**  **Email Address: Assem.Ziady@cchmc.org**

# Imaging Research

**Research Fellow/Associate Job Number: 124459.** A postdoctoral fellowship or research associate position is available in the Imaging Research Center at Cincinnati Children's Hospital and Medical Center. The successful candidate will focus on developing and validating techniques for pediatric magnetic resonance imaging (MRI) in both neuro and body imaging applications, including quantitative parameter mapping, accelerated acquisition techniques, and advanced reconstruction algorithms. The candidate will be expected to design and execute experiments, develop, and perform acquisition and reconstruction of images, and implement analyses to evaluate imaging results.
**Contact: Mary Kate Manhard, PhD**  **Email Address: Mary.Manhard@cchmc.org**

**Research Fellow & Research Associate Job Number: 127383 & 129270.** Dr. Nehal Parikh, Director of the Center for Prevention of Neurodevelopmental Disorders (CPND), is looking to hire a motivated Research Fellow (recent PhD) and a Research Associate (3+ years postdoc experience) to join a research team focused on understanding, early identification, and prevention of brain abnormalities and neurodevelopmental disorders in high-risk newborns. This NIH-funded research crosses multiple disciplines including computational neuroscience, multimodal neuroimaging, prognostication, and neurodevelopmental rehabilitation. The focus is on integrating multimodal neuroimaging with advanced computational and engineering techniques to enable early diagnosis and prevention of neurodevelopmental disorders. The ongoing longitudinal cohort (largest of its kind) is employing connectometric approaches to the over 500 advanced MRI scans collected in preterm infants soon after birth. These children are currently undergoing neurodevelopmental testing at 3 and 5 years of age and repeat neuroimaging at 5 years of age. This is a great opportunity to contribute to additional high-quality neuroimage processing, data analysis, mentoring, and manuscript/grant writing. Applicants should have a PhD in Computer Science, Biomedical Engineering, Neuroscience, Psychology, Statistics, Physics, Machine Learning, or a related field. Experience with multimodal data analysis, prognostic modeling, scripting/programming languages (MATLAB, Python, R, etc.) and familiarity with neuroimaging data analysis (fMRI, dMRI, qMRI, NIRS, etc.) is a must.
**Contact: Uma Sivaprasad, PhD for Nehal Parikh, DO, MS)**  **Email Address: research@cchmc.org**

# Immunology/Inflammation

**Research Associate Job Number 127562.** The CBDI Diagnostic Immunology Laboratory is a clinical laboratory that performs testing to assist in the diagnosis and management of primary immunodeficiencies and other disorders of the immune system. The purpose of this position will be to become part of the team that develops and validates new clinical laboratory tests. An immunology background and skills in flow cytometry and/or genetics techniques are a plus.
**Contact: Mary Reynaud**  **Email Address: Mary.Reynaud@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: Chandrashekhar Pasare, PhD**          **Email Address: [Chandrashekhar.Pasare@cchmc.org](mailto:Chandrashekhar.Pasare@cchmc.org)**

**Research Fellow/Associate Job Number: 119533/110268.** The Division of Asthma Research is recruiting two postdoctoral fellows/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](mailto: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 to have excellent skills in flow cytometry and animal handling. Experience in Molecular and Cellular biology, Immunology, and Cancer Biology is required. Expertise in T cell biology, tumor immunology/cancer immunotherapy, and/or bioinformatics is a plus.

**Contact: Fukun Guo, PhD**          **Email Address: [Fukun.Guo@cchmc.org](mailto:Fukun.Guo@cchmc.org)**

**Research Associate Job Number: 119984.** [Dr. Sing Sing Way's laboratory](#) in the Division of Infectious Diseases has an immediate opening for a 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. Experience in cellular immunology, flow cytometry, and molecular biology is required.

**Contact: Sing Sing Way, MD, PhD**          **Email Address: [SingSing.Way@cchmc.org](mailto:SingSing.Way@cchmc.org)**

**Research Fellow Job Number: 104634/106743/129047/129048.** Four postdoctoral positions are available immediately in [Dr. Marc Rothenberg's laboratory](#), 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](mailto:Marc.Rothenberg@cchmc.org)**

**Research Fellow Job Number: 124885** [Dr. Senad Divanovic's laboratory](#) studies the cellular and molecular basis of inflammation driven disease pathology, with focus on inflammatory, infectious, and metabolic diseases associated with obesity. We are looking for two motivated postdoctoral research fellows with an interest in contribution of innate and adaptive immune responses and immune mediators to: pathogenesis of obesity-associated sequalae and obesity-dependent transgenerational effects; adipocyte biology and obesity development; or regulation of parturition and induction of preterm birth. Creative recent PhD graduates, passionate about scientific discovery, desire to be competitive at the highest level, a track record of publications (first-authored publications in respected journals) and research experience in immunology, molecular biology, cell biology, or biochemistry are encouraged to apply. Experience with bioinformatics/genomic analyses is also desirable.

**Contact: Senad Divanovic, PhD**          **Email Address: [Senad.Divanovic@cchmc.org](mailto:Senad.Divanovic@cchmc.org)**

**Research Fellow Job Number: 131136.** The [Nakamura lab](#) is recruiting a Postdoctoral Research Fellow who is experienced in immunological studies to support an NIH R01-funded position. The lab researches the role of extracellular vesicles (EVs) in the regulation of immunometabolism in the pathogenesis of obesity-associated metabolic and inflammatory diseases. We have been developing R01- and R21-funded projects investigating tissue-specific EVs and their RNA cargos in metabolic and inflammatory diseases, including but not limited to type-2 diabetes and non-alcoholic fatty liver disease, based on our recent findings (Cell 2010, Nature 2012, Diabetes 2014, PNAS 2015, Cell Reports 2015, Cell Reports 2018, Nature Comm 2018, Endocrinology 2021). The successful candidate will engage in immunological studies with our newly established mouse models, iPSC models, novel RNA cargo network analysis, and human clinical samples to comprehensively understand the roles of EVs in metabolic and inflammatory diseases. We are seeking an applicant with a recent PhD, MD, or equivalent, who has peer-review publications, a high capacity for independent thinking, collaborative work, and problem-solving, and shows motivation and implication for the area of research. Candidates with strong experience in RNA biology and/or immunology with mouse study, cell culture techniques, molecular biology, biochemistry, metabolism, and/or microscopy are encouraged to apply.

**Contact: Takahisa Nakamura, PhD**          **Email Address: [Takahisa.Nakamura@cchmc.org](mailto:Takahisa.Nakamura@cchmc.org)**

**Research Associate Job Number: 119984.** Dr. Sing Sing Way's Laboratory in the Division of Infectious Diseases has an immediate opening for a Research Associate to perform basic research on the immune pathogenesis of pregnancy complications and prenatal infection. Other related scientific focus includes vertically transferred immunity and the basic immunological mechanisms of maternal-fetal immune tolerance. Dr. Way's laboratory has been at the leading edge of these scientific areas for the past 10 years with seminar publications in Nature, Cell and Science. Experience in immunology, use of mice and flow cytometry are preferred. Successful candidates will hold a Ph.D. and /or MD with 3+ years postdoctoral experience.
**Contact: Sing Sing Way, MD, PhD                                   Email Address: Singsing.Way@cchmc.org**

**Research Fellow/Associate Job Number: 126846.** Dr. Sing Sing Way's Laboratory in the Division of Infectious Diseases has an immediate opening for a Research Fellow or Research Associate (3+ years of post doc experience) to perform basic research on host sensing of commensal-pathobiont microbes; and how these interacts shape host immunity systemically and in mucosal barrier tissues. Another focus of the laboratory is reproductive and developmental biology, and integration of concepts in immunological tolerance related to commensal microbes to maternal-fetal tolerance and/or developmental shifts in how commensal tolerance to achieved are areas of active investigation. Dr. Way's laboratory has been at the leading edge of these scientific areas for the past 10 years with seminar publications in Nature, Cell and Science.
**Contact: Sing Sing Way, MD, PhD                                   Email Address: Singsing.Way@cchmc.org**

**Research Fellow Job Number: 116850.** The Azouz Lab has exciting projects with clinical relevance and is looking to hire talented and motivated postdoctoral research fellows! We work in a stimulating and friendly environment with cutting edge techniques, performing basic, translational and clinical science. Research projects include: 1) Developing therapeutic peptides for the treatment of allergic diseases in collaboration with a pharmaceutical company 2) Deciphering the molecular mechanism by which SARS-CoV-2 exploit host cells and developing intervention methods to block SARS-CoV-2 infectivity 3) Understanding how environmental factors promote molecular mechanisms that elicit long-lasting adaptive immune responses. Creative recent PhD graduates, passionate about scientific discovery, desire to be competitive at the highest level, a track record of publications and research experience in immunology, molecular biology, cell biology, or biochemistry are encouraged to apply.
**Contact: Nurit Azouz, PhD                                           Email Address: Nurit.Azouz@cchmc.org**

**Research Fellow Job Number: 130840.** The Hagan Lab in the Division of Infectious Diseases at Cincinnati Children's Hospital is seeking a postdoctoral fellow in computational and systems immunology. This position will involve the development and application of tools for multi-omic data integration and analysis to study microbiome-immune system interactions and immune responses to vaccination and infection in humans. The types of datasets to be analyzed will include RNA sequencing, targeted and untargeted metabolomics, flow cytometry, sequencing-based microbiome profiling, epigenome, and single-cell sequencing data. Ongoing projects in the lab are performed in close collaboration with experimental and clinical colleagues, and strong communication and presentation skills are required. The ideal candidate will have a PhD in computational/systems biology, bioinformatics, bioengineering, computer science, statistics, or a related field. He or she will also have fluency in at least one programming language (e.g. R, MATLAB, or Python) and expertise in or willingness to learn immunology.
**Contact: Thomas Hagan, PhD                                         Email Address: Thomas.Hagan@cchmc.org**