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
- Clinical Psychology/ Developmental Pediatrics/Health Disparities
- 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

This is a dynamic document as new positions are added (as approved) and removed (when filled). Please visit our career site for the most current list of openings.

Cincinnati Children’s Research Foundation

Cincinnati Children’s Research and Training at a Glance:
- Ranked the #1 Children's Hospital in the country in 2023!
- 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

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

Living in Cincinnati:
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
Cincinnati Children’s Hospital Medical Center is a Drug Free Workplace
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 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 Fellow Job Number: 137430. A computational postdoctoral position in bioinformatics and epigenomics (computational/experimental) is available in Dr. Yaping Liu’s lab in the Division of Human Genetics. One of the research directions in Dr. Liu’s group is to study single-cell multi-omics data to understand the gene regulatory mechanism behind non-coding genetic variants. We have already developed several single-molecule (e.g. NOMe-seq, Kelly & Liu et al. 2012 Genome Research) and single-cell multi-omics technologies (e.g. single-cell Methyl-HiC, Li & Liu et al. 2019 Nature Methods). We are continuing to develop several novel multi-omics technologies ourselves (e.g. https://doi.org/10.1101/2022.03.29.486102), which have been supported by multiple internal and long-term NIH grants now. The new postdoctoral position is going to work on our own single-molecule and single-cell multi-omics technologies, integrate multi-omics signals from the same single cell, and finally understand the regulatory roles of non-coding genetics variants in the heterogenous cellular system. The ideal candidate will have a recent PhD (fellow preferred) and 3+ years of postdoc experience, in computational biology, bioinformatics, genomics or quantitative research fields, proficiency with at least one high-level scripting language (R or Python) and Linux operating system (Bash), excellent quantitative background in statistics and machine learning, and/or computational genomics background, at least one impactful first or co-first author SCI paper published or accepted, and must be an effective communicator (spoken and written). Familiarity with large-scale next-generation sequencing (NGS) data analysis (WGS, WGBS, RNA-seq, ATAC-seq and/or related) and/or single-cell multi-omics preferred.

Contact: Yaping Liu, PhD
Email Address: Yaping.Liu@cchmc.org

Research Associate Job Number: 122598. The division of Emergency Medicine in collaboration with the division of Biostatistics & Epidemiology 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: 130732. Dr. Theresa Alenghat’s Lab has openings for two highly motivated postdoctoral research fellows interested in epigenetics, intestinal epithelial biology, and host-microbe interactions. 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: 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 fetal development and uncover how basic cellular processes are impacted when cilia are impaired. To achieve this goal, we analyze 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

Research Fellow Job Number: 139235. 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: 144706. Join Dr. Fukun Guo's lab within the Division of Gastroenterology and Human Genetics. 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

Research Fellow/Associate Job Number: 145157. Dr. Courtney Jones’s lab studies tumor metabolism in acute myeloid leukemia (AML) with a focus on leukemia stem cell (LSC) biology. (Jones et al. Cancer Cell (2018), Polleyea et al., Nature Medicine (2018) Jones et al. Blood (2019), Jones et al. Cell Stem Cell (2020), Stevens et al. Nature Cancer (2020), O’Brien et al. Haematologica (2023)). The lab is moving to Cincinnati Children’s Hospital Medical Center in the fall of 2023. Our goal is to develop novel therapeutic approaches to target metabolism in AML and LSCs to improve patient outcomes. We are looking for a postdoctoral fellow who is interested in at least a subset of the following areas: malignant hematopoiesis, stem cell biology, tumor metabolism, post-translational modifications, and patient derived xenograft modeling. The applicant should have a doctoral degree in Biology, Molecular Biology, Genetics, Immunology, or related field, and a strong interest in cancer research, and particularly in hematologic malignancies. The ideal candidate will be highly self-motivated and have a track record of publications.

Contact: Uma Sivaprasad, PhD for Dr. Courtney Jones  
Email Address: research@cchmc.org

Research Fellow/Associate Job Number: 143537. The Lu lab has an opening for self-motivated individuals interested in a postdoctoral position doing cutting-edge research on brain tumorigensis, tumor immunology, immunotherapy, and cancer neuroscience. Using mouse models, and state-of-the-art cancer genomics, single-cell multi-omics, spatial transcriptomics, high-throughput drug and CRISPR/cas9 screens, as well as proton therapy and experimental therapeutics, our investigations delve into both cancer cell intrinsic and extrinsic mechanisms, exploring crucial factors such as oncogenic networks, tumor microenvironment, and immune cells that influence tumor formation, recurrence, and metastasis. Our research has been published in prestigious journals, including Nature (Luo, et al., 2022), Nature Cell Biology (Hu, X., 2022), and Nature Communications (Luo et al., 2023), among others. Candidates who have recently obtained a PhD or MD and possess a strong background in one or more of the following areas are encouraged to apply: molecular and cellular biology, neurobiology, cancer biology, and computational biology. Join us in our mission to advance the understanding and treatment of brain tumors and make a lasting impact on the lives of patients and their families.

Contact: Richard Lu, PhD  
Email Address: Richard.Lu@cchmc.org

Research Fellow Job Number: 142957/145393. Dr. Biplab Dasgupta’s laboratory is looking for two highly motivated, self-driven and ambitious postdoctoral researchers to start this summer/fall 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, metabolic liabilities of high-grade brain tumors, and energy and nutrient sensing signaling pathways in cancer and normal cells regulated by the AMPK-mTOR pathways. We are also deeply interested in understanding the mechanisms by which non-genetic factors regulate the liabilities of high-grade brain tumors, and energy and nutrient sensing signaling pathways in cancer and normal cells regulated by the human tissue, the Dasgupta lab has been engaged in cutting-edge research to understand neural stem cell metabolism, metabolic liabilities of high-grade brain tumors, and energy and nutrient sensing signaling pathways in cancer and normal cells regulated by the AMPK-mTOR pathways. We are also deeply interested in understanding the mechanisms by which non-genetic factors regulate the

Contact: Biplab Dasgupta, PhD  
Email Address: Biplab.Dasgupta@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

Research Fellow/Associate Job Number: 144706. The Molkentin lab is interested in understanding the molecular mechanisms of heart and skeletal muscle disease. Focus areas include 1) cellular necrosis, 2) transcriptional and epigenetic regulation of cardiac and skeletal muscle differentiation, growth, death, and replication, 3) secreted protein factors (e.g., cytokines, growth factors, chemokines) that control

Contact: Yunguan Wang, PhD  
Email Address: Yunguan.Wang@cchmc.org

Cancer and Blood Diseases

Research Fellow/Associate Job Number: 145157. Dr. Courtney Jones’s lab studies tumor metabolism in acute myeloid leukemia (AML) with a focus on leukemia stem cell (LSC) biology. (Jones et al. Cancer Cell (2018), Polleyea et al., Nature Medicine (2018) Jones et al. Blood (2019), Jones et al. Cell Stem Cell (2020), Stevens et al. Nature Cancer (2020), O’Brien et al. Haematologica (2023)). The lab is moving to Cincinnati Children’s Hospital Medical Center in the fall of 2023. Our goal is to develop novel therapeutic approaches to target metabolism in AML and LSCs to improve patient outcomes. We are looking for a postdoctoral fellow who is interested in at least a subset of the following areas: malignant hematopoiesis, stem cell biology, tumor metabolism, post-translational modifications, and patient derived xenograft modeling. The applicant should have a doctoral degree in Biology, Molecular Biology, Genetics, Immunology, or related field, and a strong interest in cancer research, and particularly in hematologic malignancies. The ideal candidate will be highly self-motivated and have a track record of publications.

Contact: Yunguan Wang, PhD  
Email Address: Yunguan.Wang@cchmc.org

Cardiovascular Research

Research Fellow/Associate Job Number: 144706. The Molkentin lab is interested in understanding the molecular mechanisms of heart and skeletal muscle disease. Focus areas include 1) cellular necrosis, 2) transcriptional and epigenetic regulation of cardiac and skeletal muscle differentiation, growth, death, and replication, 3) secreted protein factors (e.g., cytokines, growth factors, chemokines) that control
disease responsiveness, 4) role of cardiac fibroblasts in extracellular matrix alteration and heart remodeling in disease, and 5) role of endogenous progenitor stem cells in cardiac regeneration. Individuals with a doctoral degree and a strong publication record that are interested in any of these areas along with experience using mouse models, cardiac physiology and general molecular and cellular techniques are invited to apply. The laboratory is considered one of the best training environments in the nation for heart and skeletal muscle disease-based research.

Contact: Jeffery Molkentin, PhD
Email Address: Jeff.Molkentin@cchmc.org

Research Fellow Job Number: 144315. Dr. Shijie Liu's laboratory has an immediate opening for a postdoctoral research fellow. The lab aims to understand the molecular mechanisms in cardiomycocyte renewal and cardiac remodeling (including Hippo & Wnt signaling pathways) & develop gene therapy strategies to treat heart failure. In addition to standard molecular biology & biochemistry tools, the fellow will use mouse genetics, cell culture and manipulation, mass spectrometry, and the 2nd generation sequencing techniques (single-cell RNA-seq, spatial-transcriptomics, and Cuts&Run) to identify gene profiles in disease models. A Ph.D. and/or M.D. degree or equivalent in a relevant research area is required. Highly motivated and creative individuals with a strong developmental biology, molecular and cell biology, and/or biochemistry background are encouraged to apply. Prior experience with mouse genetics is valuable but optional.

Contact: Shijie Liu, PhD
Email Address: Shijie.Liu@cchmc.org

Research Fellow Job Number: 128409. The Ikeyami lab at Cincinnati Children's Hospital Medical Center is recruiting highly motivated postdocs interested in developing a new tool to study chromatin biology at single cell levels. The lab has an ongoing project aiming to develop a transformative technique for mapping chromatin proteins in the genome in single cells. Candidates interested in genomics, chromatin biology, epigenetics, single cell techniques, or translational research using genomic techniques are highly encouraged to apply. A prior experience in experimental and computational genomics is a plus, but not required. Cincinnati Children’s Hospital Medical Center is a home to world-class investigators working on chromatin biology and genomics. This postdoctoral position will enjoy a highly collaborative environment within and outside the medical center.

Contact: Kohta Ikeyami, PhD
Email Address: Kohta.Ikeyami@cchmc.org

Clinical Psychology/ Developmental Pediatrics/ Health Disparities

Research Fellow Job Number: 144051. The Collaborative Laboratories Investigating Pediatric Pain (CLIPP) group, under the direction of Drs. Robert C. Coghill & Christopher D. King is focused on elucidating the mechanisms underlying pain. The CLIPP group is seeking a postdoctoral fellow interested in receiving advanced training in the investigation of human pain mechanisms across the lifespan, with a particular emphasis on chronic pain in children. The ideal candidate will be independent, highly motivated, and have a strong background in systems neuroscience, psychology, human sleep and sleep disturbances, digital health, and sensory testing. This position will involve training in multiple methodologies, including sensory testing, psychological assessments, and sleep/wearables. The fellow will be working primarily on different projects in the King (Projects | King Lab (cincinnatichildrens.org)) laboratory, including National Institute of Health (NIH) funded studies examining the neural mechanisms underlying different pain conditions, focusing on localized and overlapping pain. Additional neuroimaging training opportunities will be available in the closely aligned Coghill laboratory. Roles include oversight of research coordinators and students, experimental design and execution, actigraphy analysis, collection of patient-reported outcome data, manuscript preparation, and participating in regulatory oversight of studies. The Pediatric Pain Research Center will further enhance training opportunities by facilitating interactions with pain researchers and clinician-scientists across multiple departments across the institution. Candidates must have a doctoral degree (MD, Ph.D., or equivalent) in Neuroscience, Clinical Psychology, Computer Science, Physics, Biomedical Informatics, Bioinformatics, Epidemiology, or Biostatistics, along with prior experience with pain, sleep, digital health, or imaging, mainly working with patients with chronic pain. The preferred candidate will have an excellent understanding of the neurobiological mechanisms underlying acute and chronic pain. Excellent written, verbal, and communication skills are crucial.

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

Research Associate Job Number: 142967. The Qualitative Methods & Analysis Center (QMAC) is a consultative shared facility at Cincinnati Children’s Hospital Medical Center that facilitates the conduct of high-quality qualitative studies within the context of wide range of research including implementation science, quality improvement, community-based, medical education, and health services. Qualitative and participatory research are uniquely suited to capture and understand perspectives and reveal the contextual, sociocultural, and experiential factors that contribute to understanding health outcomes and health disparities. The Research Associate working with the Qualitative Methods and Analysis Center (QMAC) will be responsible for providing senior level (i.e., methodologic) support of qualitative research activities for assigned projects. This RA will work collaboratively with QMAC co-directors and QMAC faculty and staff in providing consultative services to investigators at all stages of study conduct. This would include providing guidance in qualitative and mixed methods research design, consulting on project challenges, data collection and analyses, and conducting other associated study activities. Job responsibilities include providing qualitative research methods and analysis training and resources to study teams, lead and/or participate in grant writing, assist in designing study protocols and data collection tools, facilitate participant interviews and focus groups, assess study needs and identifying potential study issues, lead and/or participate in data coding and analysis, providing reports of research findings, assisit in manuscript development, and varied administrative tasks. The qualified should have PhD or equivalent degree in research methodology, social science or health related field. Development of a personal research program including peer and senior-level career and methodologic mentorship can be supported but is not required. Please indicate interest upon application.

Contact: Andrea Kachelmeyer
Email Address: Andrea.Kachelmeyer@cchmc.org

Research Associate Job Number: 144286. Dr. Anna Esbensh and the Division of Developmental Disabilities and Behavioral Pediatrics has an opening for a Research Associate position focused on clinical and behavioral outcomes research with children and adolescents with Down Syndrome. The research associate will be involved in several studies, including clinical trials of school-age children with Down syndrome, measuring cognitive or language outcomes in preschool to school-age children with Down syndrome and a study developing a novel behavioral outcome measure for use with individuals with Down syndrome. Primary responsibilities include: (1) supervision of research infrastructure across several federally-funded research projects, (2) overseeing behavioral coding of observational data, (3)
some behavioral and cognitive data collection from children with Down syndrome, (4) statistical analysis of existing data, and (5) writing scientific papers and presenting work at scientific conferences. The preferred hire will have a PhD, MD or equivalent degree in a field related to developmental disabilities with 3-5 years of experience. Demonstration of a track record of publications and a strong background in research related to developmental disabilities is preferred. Experience with statistical analyses and clinical skills collecting data from individuals with intellectual and developmental disabilities, including Down syndrome, and their families is required. Please submit your application to Dr. Esbensen with the following information: cover letter stating your research interests, CV and contact details for 2 referees.

Contact: Anna Esbensen, PhD Email Address: Anna.Esbensen@cchmc.org

**Development, Genetics, Reproduction, Physiology, and Disease**

**Research Fellow/Associate Job Number: 142484.** The Peiro lab has an immediate opening for a postdoctoral research fellow or research associate (3+ years of postdoc experience). The lab investigates basic physiopathologic mechanisms of pediatric and fetal surgical congenital malformations with a goal to discover solutions or therapeutic strategies for unresolved problems in the treatment of these anomalies through translational research. The ideal candidate will have a doctoral degree, along with expertise in neuroscience (specifically studying the brain/spinal cord using animal models), as well as stem cells or exosome-related regenerative medicine to reinforce our research projects.

Contact: Jose Peiro, MD, PhD, MBA Email Address: Jose.Peiro@cchmc.org

**Research Fellow/Associate Job Number: 143466.** The Wells, Zorn, Takebe and Helmrath labs seek a motivated collaborative postdoctoral fellow/associate to advance human GI organoids in regenerative medicine. Studies will focus on 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: The CuSTOM Group Email Address: CuSTOM@cchmc.org

**Research Associate Job Number: 143048.** A research associate position is available in the Clinical Mass Spectrometry Laboratory with Kenneth Setchell, PhD in the Division of Pathology and Laboratory Medicine. Research in the lab focuses on developing cutting-edge mass spectrometry based lipidomics and metabolomics techniques including pathway-based approaches and stable isotope resolved metabolomics analysis to understand dysregulated metabolism underlying genetic disorders and gastroenterological diseases. The incumbent will assist the Principal Investigator to conduct research and/or analyze research data. Highly motivated and creative individuals with analytical chemistry, metabolomics, and/or biochemistry background are encouraged to apply. Prior experience with isotope tracing metabolomics or mass spectrometry imaging (MSI) is highly valuable but optional.

Contact: Ken Setchell, PhD Email Address: Kenneth.Setchell@cchmc.org

**Research Fellow Job Number: 142704.** Drs. SK Dey and Xiaofei Sun are looking for a postdoctoral Research Fellow to join the research team whose interests fall into two broad categories: embryonic implantation and pregnancy, and endocannabinoid signaling in implantation and placentation. 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 diseases. 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 or Xiaofei Sun, PhD Email Address: sk.dey@cchmc.org; Xiaofei.sun@cchmc.org

**Research Associate Job Number: 143714.** A postdoctoral Research Associate position is immediately available in the CuSTOM Accelerator - with a focus on advancing organoid technology toward highly predictive screening tools for drug safety & efficacy. The Research Associate will support development of new methods for remote automation of the growth and assessment of pluripotent stem cells-derived organoids offering new opportunities for modeling of human disease and expediting the preclinical testing of new treatments. The ideal candidate will have experience & expertise with iPSC generation, differentiation, & characterization.

Contact: Magdalena Kasendra, PhD Email Address: Magdalena.Kasendra@cchmc.org

**Research Fellow/Associate Job Number: 140347.** Dr. Maria Mikedis' laboratory is seeking a postdoctoral research fellow (recent PhD) or research associate (PhD with 3+ years of postdoc experience) who will investigate how spermatogonial stem cells/progenitors differentiate to form sperm. Specific topics include how translational control regulates spermatogonial stem cells' differentiation into mitotically dividing progenitors (Mikedis, et al., 2020 eLife), and how post-transcriptional regulation of mRNA induces progenitors to transition from mitosis to meiosis (Soh, Mikedis, et al., 2017 PLoS Genetics). The Mikedis laboratory uses a multidisciplinary approach, including cutting edge tools in scRNA-seq, molecular biology, functional genomics, biochemistry, and mouse genetics. Candidates must hold a PhD in molecular biology, cell biology, or a related field. Expertise in at least two of the following six areas is required: reproductive biology, biochemistry, functional genomics, bioinformatics, mouse models, and cell culture techniques. A demonstrated track record of productivity via publications in peer-reviewed journals is a strong plus.

Contact: Maria Mikedis, PhD Email Address: Maria.Mikedis@cchmc.org

**Research Fellow Job Number: 140337.** 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. The project for this position is focused on translational craniofacial genetics research to understand the genetic, genomic, and developmental mechanisms of craniofacial disorders. Candidates with experience in Genomics, Developmental Biology or Cell Biology research are encouraged to apply. Experience with animal models, particularly mouse models, is a plus.
Research Fellow Job Number 124706. The Azouz 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: Nurit Azouz, PhD
Email Address: Nurit.Azouz@cchmc.org

Research Fellow Job Number: 131214. 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 technologies, 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

Imaging Research

Research Fellow Job Number: 140175. Dr. Lili He’s laboratory of Artificial Intelligence for Computer Aided Diagnosis (AI-CAD) at Imaging Research Center (IRC) is committed to lending the group’s interdisciplinary expertise in computer science, medical imaging, biomedical engineering and biostatistics to facilitate major breakthroughs in the medical AI field by developing and validating robust clinically effective AI diagnostic tools for clinicians to use at the bedside to improve diagnosis, prediction, and prevention of patient outcomes for high-risk infants and children. We are now looking for talented and highly motivated AI post-doctoral research fellows to join us. Candidates should have a PhD degree in computer science, biomedical engineering, bioinformatics, electrical engineering, or related field, along with extensive experience in machine learning and deep learning development using Scikit-learn, & deep learning package TensorFlow, Keras, PyTorch. Experience with medical image research, biomedical statistical analysis, strong programming skills with Linux-based Python, familiarity with containerization and multiprocessing experience using GPUs for training and inference preferred.

Contact: Uma Sivaprasad, PhD (for Lili He, PhD)
Email Address: Research@cchmc.org

Immunology/Inflammation

Research Fellow Job Number: 104634/129047/129048/132332. 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 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: 131214. 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: 140865. The Pasare and Hagan labs in the Divisions of Immunobiology and Infectious Diseases at Cincinnati Children’s Hospital are seeking a postdoctoral fellow to perform research in identifying mechanisms of diversity in innate immune responses across the human population, with the goal of understanding how innate immune diversity impacts responses to infection and vaccination and development of long-term adaptive immunity. This position will involve a combination of both experimental work (flow cytometry, myeloid cell TLR stimulation, signaling experiments and T cell priming assays) and computational analysis (bulk and single cell RNA-seq and ATAC-seq/CUT&Tag data). This project involves close collaboration between labs. Strong communication and presentation skills are required. Highly motivated candidates with a PhD in immunology, computational/systems biology, or a related biomedical sciences field and experience in or interest in learning computational immunology are encouraged to apply.

Contact: Chandrashekhar Pasare, PhD
Email Address: Chandrashekhar.Pasare@cchmc.org

Research Fellow Job Number: 140019. The Panganiban Lab is seeking to recruit a highly creative and motivated postdoctoral research fellow to study the mechanisms of gene-environment interplay in asthma and allergic disease. The successful candidate will lead projects that aim to elucidate the functional role of gasdermins and pyroptosis in cell damage and tissue repair in asthma and other allergic diseases. The studies will involve the use of classical and modern techniques in molecular and cell biology, biochemistry, and functional genomics, as well as animal models of disease. Collaborations with dry labs (Bioinformatics and Epidemiology) are highly anticipated. Candidates with a PhD in Molecular Biology, Cell Biology, Genetics, Physiology or other Biomedical Science-related fields are encouraged to apply. The ideal candidate should possess strong laboratory and analytical skills & have a record of peer-reviewed publications.

Contact: Ronald Panganiban, PhD
Email Address: Ronald.Panganiban@cchmc.org

Research Fellow/Associate Job Number: 142050. Dr. Way’s Laboratory in the Division of Infectious Diseases has two immediate openings for a Research Fellow and a 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: 141781. Dr. David Hildeman is currently seeking a full-time Post-Doctoral Research Fellow with a Ph.D. in Immunology. The Hildeman Lab’s research focuses on the homeostasis and function of lymphocytes in health and disease, with a particular focus on transplant rejection. The lab works closely with adult and pediatric clinicians to analyze mechanisms underlying the acceptance and rejection of human allografts. The research team integrates clinical, translational, immunologic, bioinformatics, and multi-omics approaches to define the cellular and molecular landscape of human allografts. The long-term goal is to identify mechanisms that underlie allograft injury and to foster the development of breakthrough therapeutics that enable life-long graft acceptance and durability. The position is open immediately for a motivated and detail-oriented individual with a strong interest in developing projects related to cellular mechanisms involved in transplant rejection. The candidate should have a strong background and interest in allo- or auto-immunity, possess knowledge and experience in bioinformatics, have strong oral and written communication skills, be able to sustain diverse activities simultaneously, have outstanding organizational skills, and be able to develop innovative approaches to solving experimental challenges. The ideal candidate should be innately motivated, dependable, detail-oriented, energetic, and have a positive attitude toward research. The preferred candidate will be team player willing to learn on the job and collaborate with the lab and division members. They will also work to ensure the highest quality of laboratory research support and have good communication skills with co-workers, the clinical team, PIs, research staff, students, and other support services.

Contact: David Hildeman, PhD
Email Address: David.Hildeman@cchmc.org

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