Postdoctoral Research at Cincinnati Children’s

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

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

Please visit our website for more information about Postdoctoral Research at CCHMC and a monthly-updated listing of postdoctoral fellowship opportunities at: https://www.cincinnatichildrens.org/education/research/postdoctoral/current-openings

To apply online go to: http://jobs.cincinnatichildrens.org/us/en-us/search-jobs/XsjgP, search for the indicated requisition (job) number, & submit a cover letter, statement of research interests, CV, and contact information for 3 references. For more information, contact the Postdoc recruiter: Uma Sivaprasad, Ph.D. – research@cchmc.org

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

Currently Available Postdoctoral Positions

Anesthesia/ Pain Research Center

Research Fellow Job Number: 90270. The Pain Research Center at the Cincinnati Children’s Medical Center is seeking a highly motivated postdoctoral candidate to join the laboratory of Dr. Christopher King in the Department of Anesthesia. The position will be geared to understanding the mechanisms and impact of pediatric pain and emerging adults. CCHMC manages pain across a variety of pain conditions including migraine, musculoskeletal pain, post-operative and functional abdominal pain in addition to other conditions associated with pain (https://www.cincinnatichildrens.org/bio/k/christopher-king). Candidates should be interested in working with children, adolescents, and young adults, and the candidate should be able to work in a highly collaborative open-lab environment through the faculty at the Pain Research Center including Drs. Robert Coghill and Marina Lopez-Sola. Candidates will be expected to develop an independent research program. A number of training opportunities will be available including fMRI, sleep assessments, quantitative sensory testing, and stress. Interested candidates should have received a doctoral degree (e.g., PhD, MD, DO, DMD, DDS, DVM) in related fields (e.g., neuroscience, clinical psychology) by the date of appointment and have experience in pain research.
Contact: Christopher King, PhD
Email Address: Christopher.King@cchmc.org

Research Fellow Job Number: TBD. The Department of Anesthesia, Division of Pain Management at Cincinnati Children’s Hospital Medical Center has an opening for a Postdoctoral Research Fellow. The Jankowski laboratory is focused on understanding the molecular mechanisms of sensory neuron plasticity after peripheral injuries in neonates. We have found that the growth hormone signaling pathway may be particularly important in neonatal pain development. The successful candidate will execute studies designed to understand the mechanisms by which peripheral growth hormone modulates neonatal pain. Results will hopefully lead to the development of novel pediatric pain treatments (http://www.cincinnatichildrens.org/research/divisions/a/anesthesia/labs/jankowski/default/). Interested candidates should have received a doctoral degree (e.g., PhD, MD, DO, DMD, DDS, DVM) in related fields (e.g., neuroscience, clinical psychology) by the date of appointment and have experience in pain research. Candidates with a strong background in sensory neuron biology, molecular biology, electrophysiology, immunocytochemistry or behavioral analyses are encouraged to apply. Candidates that have developed fine dissection skills are particularly desired.
Contact: Michael P. Jankowski, PhD
Email Address: Michael.Jankowski@cchmc.org

Bioinformatics/ Computational Biology

Research Fellow Job Number: 89379. A postdoctoral Computational Research Fellow position is available immediately in Dr. Emily Miraldi’s lab in the Center for Systems Immunology, Divisions of Immunobiology and Biomedical Informatics (https://www.cincinnatichildrens.org/bio/r/emily-miraldi). The lab’s focus is the development of computational methods to build predictive,
mathematical models of the immune system from high-dimensional genomics measurements (e.g., chromatin state, single-cell gene expression data). These models will enable us to re-engineer immune-cell behavior in the context of cancer and autoimmunity. The candidate will collaborate closely with experimental colleagues in the Center for Systems Immunology and Division of Immunobiology. The team will design and execute hybrid computational-experimental strategies that push the boundaries of both immunology and computational biology. The candidate should have a PhD or equivalent with a quantitative background in systems biology, engineering, computer science, statistics, math, or a related field. Biology background is a strong plus. A willingness to develop immunology expertise as needed on the job is required.

Contact: Emily Miraldi, PhD

Email Address: Emily.Miraldi@cchmc.org

### Biostatistics and Epidemiology

**Research Fellow Job Number: 89284.** The division of Biostatistics and Epidemiology has a Pulmonary Biostatistics Core lead by Dr. Hossain that involves biostatistics faculty and staff to provide support on all aspects of statistical needs from sample size calculation to proposing innovative methods for analyzing complex datasets. The Division of Pulmonary Medicine has a strong pediatric research infrastructure focusing on sleep-disordered breathing, narcolepsy, clinical research in asthma, basic and translational research in cystic fibrosis, as well as lung remodeling and fibrosis, outcomes research and imaging research. The research fellow will work on projects related to the research interests of Division of Pulmonary Medicine under the supervision of Dr. Hossain. The ideal candidate will hold a PhD in statistics/biostatistics and be highly motivated in pursuing methodologic work, with strong computational skills. Experience in mixed models, functional data analysis, Bayesian hierarchical modeling, spatially correlated data, and/or imaging data analysis preferred.

Contact: Uma Sivaprasad, PhD (on behalf of Md Monir Hossain, PhD)

Email Address: research@cchmc.org

### Bone Growth and Development / Orthopedics / Tissue Engineering

**Research Fellow Job Number: 90886.** A postdoctoral position is available immediately to investigate the growth, signaling and development of the interface between physeal and peri-articular cartilage in a model of large osteochondral injury treatment. Our goal is to develop optimized tissue-engineered solutions to treat osteo-articular cartilage defects of the femoral head in pediatric patients by first understanding, and eventually recapitulating, the normal growth and development of the bone – peri-articular cartilage interface. We are looking for candidates with a recent Ph.D. degree in biomedical engineering/biomedical sciences with a thorough, specialized expertise in molecular and cellular biology. Prior experience using animal models, histology, PCR, mechanical testing, IPSCs, and cell culture in research is preferred.

Contact: Jennifer Anadio (on behalf of Dr. Patrick Whitlock)

Email Address: Jennifer.Anadio@cchmc.org

### Cancer and Blood Diseases

**Research Fellow Job Numbers: 93141 & 93151.** Dr. Daniel Starczynowski’s lab studies the molecular and cellular basis of hematologic malignancies, with a focus on normal hematopoietic stem cell function, immune dysregulation, acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS): Fang et al., Nature Immunology (2017); Fang et al., Nature Medicine (2016), Varney et al., Journal of Experimental Medicine (2015), Fang et al., Cell Reports (2014), Rhysan et al., Cancer Cell (2013), Fang et al., Blood (2012), Rhysan et al., Leukemia (2012) Starczynowski et al., Nature Medicine (2010); (http://www.cincinnatichildrens.org/research/divisions/e/ex-hem/labs/starczynowski/default/). We are looking for two research fellows with an interest in one or more of the following areas: cancer genetic networks and signaling, normal and malignant hematopoiesis, ubiquitin regulation, onco-immunology, and/or mouse genetic modeling of cancer. 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 applicant should also be highly self-motivated and have a track record of publications (first-authored publications in respected journals).

Contact: Daniel Starczynowski, PhD

Email Address: Daniel.Starczynowski@cchmc.org

**Research Fellow Job Number: 90773.** The Pan lab has an immediate opening for a Postdoctoral Fellow in the Molecular and Gene Therapy Program. The project will utilize cellular, molecular, and biochemical techniques with an emphasis on understanding the disease pathogenesis of lysosomal storage diseases especially CNS and skeletal abnormalities, as well as new approaches for gene therapy in such diseases. For more information about Dr Pan’s research program see: http://www.cincinnatichildrens.org/research/divisions/e/ex-hem/labs/pan/default/. Applicants with a strong background in molecular biology, immunology, and animal studies in neuroscience, megakaryocyte/platelet biology or skeletal disease are encouraged to apply. Experience with epigenetic studies or preclinical evaluation of viral vector mediated gene transfer, FACS analysis and/or primary cell culture is a plus.

Contact: Dao Pan, PhD

Email Address: Dao.Pan@cchmc.org

**Research Fellow Job Number: 92483.** A Research Fellow position is available immediately in Dr. Jianqiang Wu’s lab to study the molecular mechanisms of neurofibroma tumorigenesis in Neurofibromatosis type 1 (NF1), an inherited disease predisposing affected individuals to benign Schwann cell tumors called neurofibromas. Specifically, the candidate will focus on: 1) determining microRNAs and Runx-related transcription factor (Runx) family of genes (Runx1, 2, & 3) functions in neurofibroma formation 2) testing the therapeutic effects on neurofibroma mouse model by using specific Runx inhibitor and/or nanoparticle embedded anti-microRNA peptide nucleic acids. Candidate is expected to be both a collaborative team-player and capable of working independently with minimal guidance. Candidates with strong cancer biology and molecular biology background as well as genetic engineered mouse model experience are encouraged to apply.

Contact: Jianqiang Wu, MD, MS

Email Address: Jianqiang.Wu@cchmc.org
Research Fellow Job Number: 92953. A Postdoctoral position is now available in the laboratory of Dr. Damien Reynaud. Our lab studies hematopoiesis in various patho-physiological contexts (https://www.cincinnatichildrens.org/bio/r/damien-reynaud). We are particularly interested in understanding how metabolic dysregulations impact on hematopoietic stem cell function and how they could contribute to hematological disorders. We are looking for a highly motivated and enthusiastic individual to develop our thematic. Applicants with a recent PhD and a background in hematology and immunology are preferred.

Contact Damien Reynaud, PhD

Research Fellow Job Number: 93190. Dr. Joseph Palumbo’s laboratory in the Cancer and Blood Diseases Institute has an opening for a Postdoctoral Fellow. The Palumbo laboratory is focused on elucidating the role of hemostatic system components to malignant and inflammatory disease pathogenesis. The particular projects that would apply to this position are focused on defining the role of the specific hemostatic system proteins in the pathogenesis of colon cancer and prostate cancer. The project is heavily focused on murine models of cancer progression, using gene targeted mice in combination with spontaneous and transplantable models of cancer. Candidates must have a PhD degree and substantial experience with contemporary techniques in molecular and cell biology. Prior experience in cancer research and techniques including cell culture, FACS, immunostaining and murine models are preferred.

Contact Joseph Palumbo, MD

Research Fellow Job Number: 93007. Research in Dr. Huang’s laboratory focuses on genetic and epigenetic regulations of blood cell normal development and malignancies (https://www.cincinnatichildrens.org/bio/h/gang-huang). Previous studies have demonstrated that the RUNX1/CBFb transcription factor heterodimer and Mixed- Lineage Leukemia (MLL) enzyme (that methylates K4 of histone H3 tails), form a regulatory complex important for normal blood development and act as tumor suppressors in hematopoietic malignancies. Mutations in any one of these three upstream genes or downstream targets (e.g. CEBPs and PU.1), account for a significant fraction of myelodysplastic syndromes (MDS), myeloproliferative neoplasms (MPN), acute myelogenous leukemia (AML), and acute lymphoblastic leukemia (ALL). Recent studies have identified a novel epigenetic tumor suppressor SETD2 (that catalyzes tri-methylation of K36 of histone H3) that functions through crosstalk with other epigenetic factors. Dr. Huang’s laboratory is looking for a research fellow who will continue these studies to provide new insights into the interplay between genetic and epigenetic factors in normal blood development and hematopoietic malignancies, with plans to develop a drug for the clinical treatment of a significant fraction of MDS, MPN, AML, and ALL. The ideal candidate will have a recent PhD and a strong background in molecular biology, cell biology, and stem cell biology. Experience with animal models and a hematology background would be a significant plus.

Contact Gang Huang, PhD

Research Fellow Job Number: TBD. A postdoctoral Research Fellow position is available in the Waxman lab (http://www.cincinnatichildrens.org/research/divisions/m/mcb/labs/waxman/default). Research in the Waxman Lab uses zebrafish as a model to understand the mechanisms underlying vertebrate cardiovascular development. We are interested in numerous facets of cardiogenesis, signaling and regeneration. One focus is to understand transcriptional and molecular mechanisms that determine cardiac chamber size. Applicants should be motivated, creative individuals with a strong record of productivity during their graduate research. Ideal candidates will have experience with multiple molecular biology and imaging techniques. However, experience using zebrafish or studying cardiovascular development is not a requirement.

Contact: Joshua Waxman, PhD

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

Contact: Katherine Yutzey, PhD

Research Fellow Job Number: 86346. A Research Fellow position is available in Dr. David Cooper’s laboratory in the Division of Cardiothoracic Surgery. We are seeking a highly motivated scientist who is interested in studying various forms of congenital heart diseases particularly surgical management of complex single ventricle congenital heart disease. This position will require participation in clinical outcomes research. Candidate is expected to be both a collaborative team-player and capable of working independently with minimal guidance. Strong personal accountability for results and integrity are essential. Good communication, technical and organizational skills are strongly desired. Requirements: PhD or MD or equivalent with experience in statistical analysis and scientific writing.

Contact: Uma Sivaprasad, PhD (on behalf of David Cooper, MD)

Research Fellow Job Number: 93319. A postdoctoral research fellow position is available with Dr. Andrew Redington (http://www.cincinnatichildrens.org/research/divisions/c/cardiology/labs/redington/default/). The Redington lab is focused in ischemic reconditioning in ischemic-reperfusion injury and the role of mir-144 in modifying these events. We recently reported microRNA-144 as an effector of the acute and delayed cardioprotection associated with RIC, and future work will concentrate on the biology of mir-144 particularly as it relates to the modification of post MI remodeling. Recent PhD graduates with a strong publication record and special interest in cardioprotection/ischemia-reperfusion injury are encouraged to apply.

Contact: Andrew Redington, MD

Cardiovascular Research
Research Fellow Job Number: TBD. The Millay lab is interested in understanding the formation of multi-nucleated skeletal muscle, which arises from the membrane fusion between precursor cells. Specifically, our focus lies in the elucidation of the molecules and mechanisms that govern myoblast fusion. We have recently discovered a necessary component (named myomaker) of the muscle fusion machinery. Projects range from delineating the mechanisms by which this multi-pass membrane protein directs cell-cell fusion to manipulating muscle cell fusion as a strategy for in vivo cell therapy. Recent Ph.D candidates with research experience in molecular biology, cell biology, biochemistry, or developmental biology are encouraged to apply.

Contact: Douglas Millay, PhD
Email Address: Douglas.Millay@cchmc.org

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

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

Genetics, Development, Physiology, and Disease

Research Fellow Job Number: 89880. A Research Fellow position is available in Dr Naren’s lab (http://www.cincinnatichildrens.org/bio/n/ap-naren/) in the Division of Pulmonary Medicine. The projects in the lab involve understanding the role of Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) and modifiers of CFTR function in the lung and gastrointestinal system. Our lab has expertise in live imaging techniques (FRET, TIRF, single particle tracking), stem cells based CFTR functional models (3D intestinal and lung organoids), electrophysiology (two electrode voltage clamping, Ussing Chamber etc), molecular cloning, protein purification and protein binding assays. We are looking for a highly motivated newly graduated researcher with a strong background in Cell Biology and lung Physiology. Research skills in mouse models of lung injury and inflammation are highly desirable.

Contact: Uma Sivaprasad, PhD (on behalf of Dr. Naren)
Email Address: research@cchmc.org

Research Fellow Job Number: 91144. Dr. Taosheng Huang’s laboratory in the Division of Human Genetics studies the molecular basis of genetic syndromes, to apply the discoveries from rare diseases to common conditions and to develop treatments for genetic diseases, with a special emphasis on mitochondrial diseases (www.cincinnatichildrens.org/mitochondrial). Methodologies used include next generation sequencing to identify disease causing mutations and iPSCs and mouse models to characterize the impact of these mutations using CRISPR/Cas9 based methods. We are seeking a highly motivated individual with strong background in genetics and molecular/cellular biology, & a PhD degree in Genetics or Molecular/Cellular Biology or related field. Good scientific writing, excellent communication and technical skills are strongly desired. Previous experience with stem cell research & animal handling is preferred.

Contact: Taosheng Huang, MD, PhD
Email Address: Taosheng.Huang@cchmc.org

Research Fellow Job Number: 92964. The multidisciplinary team in the laboratory of Dr. Aaron Zorn is seeking to recruit a highly motivated postdoctoral fellow to spearhead research investigating the genomic basis of transcriptional specificity of cell signaling during the directed differentiation of human pluripotent stem cells into the digestive and respiratory organoids. The goal is to understand how different transcriptional programs are activated by the same cell signaling pathways at different times in development and disease (https://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/zorn). Qualified applicants will have a PhD with peer review research publications, a demonstrated expertise in genomic analysis, and a keen interest to develop an independent research program in the area of genomics, development and stem cell biology.

Contact: Aaron Zorn, PhD
Email Address: Aaron.Zorn@cchmc.org

Research Fellow/ Research Associate Job Numbers: 91699/91690. Dr. Rashmi Hegde’s laboratory in the Division of Developmental Biology has an opening for a Research Fellow (new graduates) and a Research Associate (3+ year’s postdoc experience) to work on one of two projects (https://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/hegde): 1) Tumor Angiogenesis: We have identified a signaling pathway that promotes both tumor angiogenesis and resistance to DNA damaging therapeutics. We are now developing strategies to simultaneously target both angiogenesis and chemo-resistance in several solid tumor models. 2) Proliferative Retinopathies: We have identified signaling pathways that play specific roles in pathological angiogenesis. Using animal models of oxygen-induced retinopathy and diabetic retinopathy, we are now validating therapeutic targets in these pathways and developing drug candidates. Both projects use genetically modified mouse models, cell biology, mechanistic biochemistry, and chemical biology. Successful candidates will have a PhD degree in molecular biology, cell biology or relevant discipline with experience in cancer related research. Expertise in the use of mouse models, molecular & cell biology, biochemistry, & human cell culture techniques is required.

Contact: Rashmi Hegde, PhD
Email Address: Rashmi.Hegde@cchmc.org

Research Fellow Job Number: 92223. A new Research Fellow position is available in Dr. Assem Ziady’s lab in the Division of Pulmonary Medicine to develop and study nucleic acid nanoparticles for human gene therapy (https://www.cincinnatichildrens.org/research/divisions/p/pulmonary/labs/ziady). The primary focus is on elucidating mechanisms of uptake of these nanoparticles using primary cells and in vivo models. A strong background in protein-protein interaction studies as well as biochemistry is required along with molecular biology, gene expression and translational research. Knowledge of the cell biology of particle uptake and experience with proteomics and mass spectrometry is preferred.

Contact: Assem Ziady, PhD
Email Address: Assem.Ziady@cchmc.org

Research Fellow Job Number: 93045. A postdoctoral position is available in Dr. Satish Madala’s laboratory to study pathobiology of fibrotic lung diseases using state-of-the-art cellular and molecular methods. The research themes of the lab are to understand
transcriptional regulation of fibroblast activation using a combination of biochemistry, molecular biology, animal models and human disease samples ([http://www.cincinnatichildrens.org/research/divisions/p/pulmonary/labs/madala/default](http://www.cincinnatichildrens.org/research/divisions/p/pulmonary/labs/madala/default)). The laboratory has identified several important transcriptional regulators involved in pulmonary fibrosis. The successful candidate will work to elucidate how these regulators modulate the pathophysiology of disease. The Division of Pulmonary Medicine is a high-energy, dynamic, and interactive environment that is ranked No. 1 for Pulmonary Care among children’s hospitals. Successful candidates will hold a PhD and/or MD with 0-3 year postdoctoral experience. Experience in assessment of DNA methylation and histone marks, RNA-IP, ChIP-Seq assays, molecular biology and translational studies is required. Candidates who are motivated, enthusiastic, with a keen problem-solving ability and a strong desire to advance in their career are encouraged to apply.

**Contact:** Satish Madala, PhD  
**Email Address:** Satish.Madala@cchmc.org

**Research Fellow Job Number:** 92680. A Research Fellow position is available in the Stottmann lab in the Divisions of Human Genetics and Developmental Biology. Our interests are in the genetic basis of congenital malformations affecting the forebrain and craniofacial structures. The successful candidate will primarily be involved in characterizing novel genes and mutations (identified through forward genetic approaches and exome/genome sequencing analysis) in both mouse and human systems. We use a range of molecular embryological tools including genome editing in animal models and in vitro studies. Candidates will be expected to develop a vigorous research program in close consultation with the PI. Applicants with multiple first-author publications and experience in mouse genetics, molecular biology and/or embryology are preferred. Further preference will be given to applicants with demonstrable experience with iPSC culture. More information can be found at [http://www.cincinnatichildrens.org/research/divisions/h/genetics/labs/stottmann/default/](http://www.cincinnatichildrens.org/research/divisions/h/genetics/labs/stottmann/default/).

**Contact:** Rolf Stottmann, PhD  
**Email Address:** Rolf.Stottmann@cchmc.org

**Research Fellow Job Number:** 92962. A postdoctoral research fellow position is available to study neural circuits at Cincinnati Children’s Hospital Medical Center. The Yoshida lab is interested in understanding cellular and molecular mechanisms underlying motor circuits to control locomotor and skilled movements using a variety of approaches including molecular biology, mouse genetics, trans-synaptic virus assay, optogenetics, electrophysiology, and behavior assays ([http://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/yoshida/default](http://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/yoshida/default)). Candidates with a recent PhD or MD & a strong background in molecular biology and/or neurobiology are encouraged to apply.

**Contact:** Yutaka Yoshida, PhD  
**Email Address:** Yutaka.Yoshida@cchmc.org

**Research Fellow Job Number:** 93359. A postdoctoral position is available in the Sumanas laboratory to study genetic causes of intracranial aneurysms. The zebrafish model is used to validate and study mutant variants associated with intracranial aneurysms which were identified in human individuals. The lab also has a long standing interest in the molecular mechanisms of vascular development. We are performing screens for novel potential regulators of vasculature formation followed by their characterization and functional studies.  
Website: [http://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/sumanas/default](http://www.cincinnatichildrens.org/research/divisions/d/dev-biology/labs/sumanas/default). Candidates with a strong background in developmental and molecular biology are invited to apply. Prior experience in zebrafish is helpful but not a prerequisite.

**Contact:** Saulius Sumanas, PhD  
**Email Address:** Saulius.Sumanas@cchmc.org

**Research Fellow Job Number:** TBD. A NIH-funded postdoctoral fellow position is available in the laboratory of Dr. Helen Jones in the Center for Fetal Cellular and Molecular Therapy to develop and study safe, efficacious and specific non-invasive placental gene transfer in order to establish potential treatment strategies for fetal growth restriction and other placental pathologies. The lab studies placental development, function and role in multiple pathologies including Fetal Growth Restriction and Congenital Heart disease ([https://www.cincinnatichildrens.org/research/divisions/c/cfcm/labs/jones/projects](https://www.cincinnatichildrens.org/research/divisions/c/cfcm/labs/jones/projects)). This project will involve a substantial amount of animal work combined with molecular and cellular biology techniques. A strong background in molecular biology, cell culture, and animal surgery is desired, but enthusiastic & motivated PhD scientists trained in any fields of molecular or cellular biology are welcome to apply.

**Contact:** Helen Jones, PhD  
**Email Address:** Helen.Jones@cchmc.org

**Research Fellow Job Number:** TBD. The laboratory of Juan Sanchez Gurmaches is seeking to recruit highly motivated postdoctoral fellows to spearhead research investigating the genetic and metabolic basis of cell-to-cell heterogeneity during development and disease. The goal is to understand the mechanisms that drive the normal and pathological formation and function of distinct types of adipocytes by using mouse genetics, single cell tools, CRISPR screenings, omics approaches and functional in vivo and in vitro studies among others. Successful applicants will have a recent PhD or equivalent with peer review publications, high capacity for independent thinking, collaborative work and problem solving and show motivation and implication for the area of research. Candidates with strong experience using mice as in vivo model, cell culture techniques, molecular biology and biochemistry and microscopy are encouraged to apply.

**Contact:** Juan Sanchez Gurmaches, PhD  
**Email Address:** juan.sanchez-gurmaches@cchmc.org

**Research Associate Job Number:** 94182. Xenbase curates and integrates all of the Xenopus literature, expression, phenotype, bioinformatics and genomics data and makes it available to the international research community supporting data exchanges with NCBI, USCS and other model organism databases. We are seeking a highly motivated, collaborative individual to join the Xenbase Biocuration team located in the Division of Developmental Biology. This position offers a challenging job away from the wet-lab and research bench, where interpreting, annotating and displaying complex data is our main task, along with strategies to improve data curation, improving data display/querying on the website, interaction with our user community at conferences, developing programming skills, and contributing to Xenbase publications. A PhD degree in bioinformatics and/or developmental biology, genomics, genetics, molecular biology, zoology, anatomy or related field, along with the demonstrated ability to produce scientific papers, reports and presentations, to work in a team as well as independently, strong interpersonal and communication skills, as well as excellent written and spoken English are required. Preference will be given to applicants with experience with bioinformatics, genomics or model organism database, experience in data annotation/ biocuration, knowledge of relational databases, and familiarity with ontologies, experience in a Xenopus or other vertebrate...
Researc...h in airway remodeling and chronic lung disease. Recent Ph.D. candidates who are passionate about scientific discovery and have expertise in molecular biology, mouse handling, and intestinal microbiome interactions are encouraged to apply. Experience with bioinformatics and/or gnotobiotics is also desirable.

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

Research Fellow Job Number: TBD. A postdoctoral position is available in Dr. Satish Madala’s laboratory to study chronic lung diseases using immunology and molecular methods (http://www.cincinnatichildrens.org/research/divisions/p/pulmonary/labs/madala/default/). The research themes of the lab are to understand airway remodeling using a combination of immunology, biochemistry, animal models and human disease samples. The laboratory has identified several important cytokines involved in airway remodeling and chronic lung disease. Recent Ph.D. candidates who are passionate about scientific discovery and have expertise in molecular biology, mouse handling, and intestinal physiology/mucosal immunology are encouraged to apply. Experience with bioinformatics and/or gnotobiotics is also desirable.

Contact: Theresa Alenghat, VMD, PhD
Email Address: Theresa.Alenghat@cchmc.org
diseases. The successful candidate will work to elucidate how these cytokines modulate airway remodeling. The Division of Pulmonary Medicine is a high-energy, dynamic, and interactive environment that is ranked No. 1 for Pulmonary Care among children's hospitals. Successful candidates will hold a PhD and/or MD with 0-3 year postdoctoral experience. Experience in assessment of DNA methylation and histone marks, RNA-IP, ChIP-Seq assays, molecular biology and animal studies is required. Candidates who are motivated, enthusiastic, with a keen problem-solving ability and a strong desire to advance in their career are encouraged to apply.

Contact: Satish Madala, PhD
Email Address: Satish.Madala@cchmc.org

Research Fellow/Research Associate Job Number: TBD. The Roskin Lab, affiliated with the divisions of Immunobiology and Biomedical Informatics, focuses on combining computational and molecular biology methods to better understand the immune system, specifically studying changes in the immune receptor repertoire in the context of immunogen exposure or autoimmunity/immunodysfunction status. We are seeking a postdoctoral Research Fellow interested in studying the adaptive immune system by large scale parallel sequencing of B and T cell receptors elicited under various immune conditions. Initially the fellow will work on development, validation, and troubleshooting of new or improved sequencing library production methods and collaborate with computational immunologists on analysis strategies, with the long term goal to broaden the use of these methodologies to a variety of model systems. The ideal candidate will have a PhD in immunology, molecular biology, biochemistry, or a related discipline, experience developing assays based on next generation sequencing, analysis of sequencing data, programming ability, and familiarity with statistical software packages, detail-oriented and independent, with strong organizational and communication skills. Experience in single-cell genomics, functional genomics, or immunology are a significant plus.

Contact: Krishna Roskin, PhD
Email Address: Krishna.Roskin@cchmc.org

Magnetic Resonance Imaging (MRI)

Research Fellow Job Number: 90408. Dr. Zackary Cleveland’s laboratory in the Center for Pulmonary Imaging Research (CPIR, https://cpir.cchmc.org) seeks to hire multiple Postdoctoral Fellows in lung MRI research. Selected candidates will work with a multidisciplinary team of engineers, pulmonologists, and MR scientists to quantify lung structure and function in humans and mouse models of lung diseases, using ultra-short echo-time (UTE) 1H and hyperpolarized 129Xe MRI. Research focuses in the CPIR include MR sequence development, normal lung development and structure-function relationships in a variety of diseases including asthma, cystic fibrosis, interstitial lung disease and neonatal lung disorders. Candidates with strong backgrounds in magnetic resonance—EPR, NMR, spin exchange, or MRI—and a PhD in a relevant discipline (engineering, physics, medical physics, chemistry, etc.) are encouraged to apply. Ideal candidates will also possess expertise in one or more of the following: pulse programming, image reconstruction/analysis, scientific computing (MATLAB, C++, etc.), hardware design, in vivo imaging/spectroscopy, or hyperpolarized media.

Contact: Zackary Cleveland, PhD
Email Address: Zackary.Cleveland@cchmc.org

Research Fellow Job Number: 89986. The Center for Pulmonary Imaging Research (CPIR) has an opening for a postdoctoral Research Fellow to use hyperpolarized-gas and proton MRI of the respiratory system to understand regional pulmonary structure and function in children and adults with chronic respiratory diseases that range from CF to asthma to rare-lung diseases and lung-transplantation rejection (http://cpir.cchmc.org). The candidate must have an advanced graduate (PhD) or medical degree (MD) and experience with MRI pulse-sequence programming and/or hyperpolarized gases. Preferred applicants will have one or more of the following: experience with pulse-sequence programming on the Philips platform, experience with hyperpolarized-gas production and/or delivery in vivo, non-proton MR spectroscopy, and/or quantitative texture-based or feature-based image analysis. The candidate will also have excellent written, verbal, and interpersonal communication skills, strong attention to detail, strong organizational skills and an innovative approach to experimental design, the ability to synthesize information and to create and deal with new situations that involve multidisciplinary experiences with MDs and PhDs with diverse scientific backgrounds, as well as the willingness to teach others and share results openly.

Contact: Jason Woods, PhD
Email Address: Jason.Woods@cchmc.org

Research Fellow/Research Associate Job Number: 93065/93066. The multidisciplinary team in the laboratory of Dr. Nehal Parikh is seeking a creative and highly motivated individual with solid training in image processing, computer science, and/or neuroscience to conduct research to develop advanced MRI (diffusion, functional) biomarkers in high-risk neonates and infants. The lab’s research goals are: 1) to understand early brain development through structural and functional connectivity; 2) to develop prognostic biomarker models of lung diseases, using ultra-short echo-time (UTE) 1H and hyperpolarized 129Xe MRI. Research focuses in the CPIR include MR sequence development, normal lung development and structure-function relationships in a variety of diseases including asthma, cystic fibrosis, interstitial lung disease and neonatal lung disorders. Candidates with strong backgrounds in magnetic resonance—EPR, NMR, spin exchange, or MRI—and a PhD in a relevant discipline (engineering, physics, medical physics, chemistry, etc.) are encouraged to apply. Ideal candidates will also possess expertise in one or more of the following: pulse programming, image reconstruction/analysis, scientific computing (MATLAB, C++, etc.), hardware design, in vivo imaging/spectroscopy, or hyperpolarized media.

Contact: Uma Sivaprasad, PhD (on behalf of Nehal Parikh, DO, MS)
Email Address: research@cchmc.org

Medicinal Chemist/ Biochemist/ Molecular Biologist

Research Associate Job Number: 90447. A Research Associate position is available immediately in Dr. Marc Rothenberg’s laboratory in the division of Allergy and Immunology. The Rothenberg lab is focused on elucidating the mechanisms of allergic responses especially in mucosal tissues such as the lung and the gastrointestinal tract. For more information see: http://www.cincinnatichildrens.org/research/divisions/a/allergy-immunology/labs/rothenberg/default/.

The research associate will be
focused on the development, synthesis, and evaluation of small molecule inhibitors of signaling pathway molecules relevant in allergic diseases. The ideal candidate will have a PhD or equivalent, with 3+ years’ experience in chemical compound synthesis, along with experience in testing such compounds using biological and biochemical assays, as well as experience with biological systems, such as working with mammalian cells and basic molecular biology. A working knowledge of the immune system and enzymology is preferable.

**Contact:** Marc Rothenberg, MD PhD

**Email Address:** Marc.Rothenberg@cchmc.org

### Mass Spectrometry

**Research Associate Job Number:** 93486. The Department of Pathology and Laboratory Medicine at the Cincinnati Children’s Hospital Medical Center is seeking a qualified person with experience in the area of metabolomics, with additional interests in stable isotope-resolved metabolomics studies. Stable Isotope-Resolved Metabolomics (SIRM) technologies are being applied in the NMR-Based Metabolomics Core under the direction of Dr. Romick-Rosendale to support ongoing one-dimensional NMR metabolomics experiments and further expand our understanding of the relationship between metabolic pathways and disease (https://www.cincinnatichildren.org/research/cores/metabolomics). The candidate would join a team that has a strong background in both steady state cellular based metabolomics, as well as metabolomics studies of human disease, with the goal to establish the SIRM techniques within the core laboratory, as well as expand upon our current data analysis capabilities. The team in place has the strategic, informatics, clinical, and technical expertise to provide strong support for the candidate. The position requires a PhD in an analytical or molecular science and 3+ year’s laboratory experience specifically in the area of NMR-based metabolomics. Training with emphasis on stable isotope-resolved metabolomics procedures is strongly preferred. Candidates who have demonstrated scholarly productivity by discovery and publication will also be preferred.

**Contact:** Lindsey Romick-Rosendale, PhD

**Email Address:** Lindsey.Romick-Rosendale@cchmc.org

### Neurology

**Research Fellow Job Number:** TBD. A postdoctoral position is open in Dr. Lubov Timchenko’s laboratory. Dr. Timchenko studies the molecular mechanisms of neuro-muscular diseases Myotonic Dystrophies type 1 and type 2. The main focus of the research includes investigations of signaling pathways in skeletal muscle and in brain in Myotonic Dystrophies and development of therapeutic approaches for these diseases. New PhD graduates with experience in research on human diseases are invited to apply.

**Contact:** Lubov Timchenko, PhD

**Email Address:** Lubov.Timchenko@cchmc.org

### Behavioral and Developmental Neuropsychiatry

**Research Fellow Job Number:** 80452. The Behavioral & Developmental Neuropsychiatry group at Cincinnati Children's is a looking for a post-doctoral fellow to participate in a growing a vibrant translational treatment development group focused on persons with developmental disabilities (DD) including specific interdisciplinary research programs in fragile X syndrome, autism spectrum disorder, and Angelman syndrome (http://www.cincinnatichildren.org/research/divisions/p/psychiatry/labs/erickson-wink/default/). Post-doc candidates may have a terminal degree in a variety of disciplines given our breadth of involvement in all aspects of translational treatment development including biomarker development, drug development, outcome measure development, complex biostatistical analyses, electrophysiology, and molecular science. Opportunities exist for research-based assessment and evaluations of behavior and cognition in populations studied and medical intervention in these populations, among other opportunities. Interest in the DD research field is essential for success in this fellowship.

**Contact:** Craig Erickson, MD

**Email Address:** Craig.Erickson@cchmc.org

**Research Associate Job Number:** 90615. We are seeking a doctoral level individual with an interest in neuroscience research focused on translational treatment development in persons with neurodevelopmental disabilities, including but not limited to, autism spectrum disorder, fragile X syndrome, and Angelman syndrome. Development of sensitive and specific assays to assess and predict treatment response at any point across the translational treatment development continuum from bed to bedside will be a potential focus of this work. Assays developed and tested may include, but are not limited to, molecular, animal behavioral, human behavioral, electrophysiological, induced pluripotent stem cell, and/or molecular genetic based. Qualified candidates will have a doctoral degree in a relevant field and at least one year of related postdoctoral experience.

**Contact:** Craig Erickson, MD

**Email Address:** Craig.Erickson@cchmc.org

### Human Auditory Development/ Communication Sciences Research Center

**Research Fellow Job Number:** TBD. A NIH-funded Research Fellow position is available in Dr. David Moore’s laboratory in the Communication Sciences Research Center (CSRC) to study human auditory development. The objective of the research is to relate behavioral to biological measures of auditory and cognitive function to understand and predict the ability of individual children to develop healthy hearing and listening. The CSRC (https://csrc.cchmc.org/) is a joint venture between Otolaryngology, Audiology, and Speech Pathology at Cincinnati Children’s Hospital to construct an interdisciplinary research program focused on communication development and disorders in children. Current projects include (1) listening difficulty in children, (2) hearing and interventions in very young children (0-4 years old), and (3) relation of hearing to language and learning disabilities. Techniques used include developmental psychoacoustics, measures of cognitive performance, objective audiological measures, EEG and network MRI. Self-motivated candidates with a strong background in neuroscience, experimental psychology, audiology or the physical sciences related to biology are invited to apply.

**Contact:** David Moore, PhD

**Email Address:** David.R.Moore@cchmc.org
Sports Medicine

Research Fellow Job Number: TBD. A research fellow position is open in the Human Performance Laboratory of Dr. Gregory Myer in the Division of Sports Medicine. Dr. Myer’s primary research interests reside in the fields of injury biomechanics, human physiology and performance, pediatric exercise science, and sensorimotor neuroscience. The ideal candidate will have a doctorate degree within biomechanics, biomedical engineering, kinesiology, neuroscience or a related field with hands on experience in a research laboratory collecting and processing 3-D motion analysis data or motor control related Neuroimaging. Strong assets for the applicant include: 5 to 7 years of experience or an equivalent combination of education and experience working in biomechanics laboratory; working knowledge and desire to reliably collect, process and analyze biomechanical and neuromuscular data; ability to quality control and calibrate motion analysis systems; experience with data reduction and processing with Matlab and Visual3D software packages; and ability to assist and direct laboratory personnel in technical procedures; and ability to develop and write grant proposals for funding. Other desired abilities are to design and perform experiments and record data according to research protocol, independently reproduce and evaluate research and improve techniques currently used and adapt new methods to existing procedures. Also the abilities to assist in clinical analyses, to aid in grant development and to perform general computer troubleshooting and to regularly meet deadlines are highly desired.

Contact: Uma Sivaprasad, PhD (on behalf of Dr. Myer) Email Address: research@cchmc.org

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