## Postdoctoral Fellow

# **Posting Details**

| Postdoctoral Fellow  | Position Details          |   |
|--|---------------------------|---|
| Department   IUSM - Medical & Molecular Genetics   | Title                     | Postdoctoral Fellow   |
| Department   IUSM - Medical & Molecular Genetics   | Specific Title            |   |
| Position Summary  The Department of Medical and Molecular Genetics at Indiana University School of Medicine is seeking applicants at the Postdoctoral Fellow level to work in the area of genetic epidemiology. The successful candidate will work under the supervision of Dr. Tae-Hwi Schwantes-An whose lab focuses on cardiometabolic diseases such as alcohol-related liver disease, metabolic dysfunction associated steatotic liver diseases, and pulmonary arterial hypertension. Additionally, the candidate will have access to Indiana Blobank, a 50,000 participant cohort with genetic and linked electronic health records dataset. We are interested in candidates with expertise in genetic epidemiology, quantitative genetics, qualitative genetics, and experiences in multi-omics data such as RNASeq and metabolites.  As the nation's largest medical school, IUSM is committed to being an institution that not only reflects the diversity of the learners we teach and the patient populations we serve, but also pursues the values of diversity, equity and inclusion that inform academic excellence. We desire candidates who enhance our representational diversity, as well as those whose work contributes to equitable and inclusive learning and working environments for our students, staff, and faculty. IUSM strives to take an anti-racist stance, regularly evaluating and updating policies, procedures, and practices to confer equitable opportunities for contribution and advancement for all members of our community. We invite individuals who will join us in our mission to advance racial equity to transform health and wellbeing for all throughout the state of Indiana.  Applications will be received until the position is filled. Please apply to the following link: https://indiana.peopleadmin.com/postings/22873  Basic Qualifications  Candidates should have a PhD in a relevant field (e.g., Genetic Epidemiology, Statistical Genetics, Quantitative Genetics) or another related field. Experience in R. Python, Jupyter Notebook and genetic genetics of t | Appointment Type          | Postdoctoral Fellow   |
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| seeking applicants at the Postdoctoral Fellow level to work in the area of genetic epidemiology. The successful candidate will work under the supervision of Dr. Tae-Kohwantes-An whose lab focuses on cardiometabolic diseases and pulmonary arterial hypertension. Additionally, the candidate will have access to Indiana Biobank, a 50,000 participant cohort with genetic and linked electronic health records dataset. We are interestial hypertension. Additionally, the candidate will have access to Indiana Biobank, a 50,000 participant cohort with genetic and linked electronic health records dataset. We are interestial roadidates with expertise in genetic epidemiology, quantitative genetics, qualitative genetics and experiences in multi-omics data such as RNASeq and metabolites.  As the nation's largest medical school, IUSM is committed to being an institution that not only reflects the diversity of the learners we teach and the patient populations we serve, but also pursues the values of diversity, equity and inclusion that inform academic excellence. We desire candidates who enhance our representational diversity, as well as those whose work contributes to equitable and inclusive learning and working environments for our students, staff, and faculty, IUSM strives to take an anti-raciest stance, regularly evaluating and undvancement for all members of our community. We invite individuals who will join us in our mission to advance racial equity to transform health and wellbeing for all throughout the state of Indiana.  Applications will be received until the position is filled. Please apply to the following link: https://indiana.peopleadmin.com/postings/22879  Basic Qualifications  Candidates should have a PhD in a relevant field (e.g., Genetic Epidemiology, Statistical Genetics, Quantitative Genetics) or another related field. Experience in R. Python, Jupyter Notebook and genetic/genomic packages (e.g., P.INIXC, REGENIE, RRMIX, GCTA, DESEQQ, MR, FUMA) are needed. Experience with data analytics of high-throughput phenot  | Campus                    | IU School of Medicine Indianapolis  |
| Genetics, Quantitative Genetics) or another related field. Experience in R, Python, Jupyter Notebook and genetic/genomic packages (e.g., PLINK2, REGENIE, RFMIX, GCTA, DESEQ2, MR, FUMA) are needed. Experience with data analytics of high-throughput phenotypes and genomic prediction, with interfacing with cluster and cloud computing environments, and with data integration across biological data types is preferred. Preference will be given to candidates with a strong publication record and good scientific communication skills.  The successful candidate will be responsible for: developing and implementing analytical pipelines for data editing/filtering and data integration, quantitative genomic analyses of complex traits using genomics and other omics data sources; developing and/or comparing statistical models, with a focus on machine learning methods, for more accurate predictions of polygenic risk scores and patients phenotyping using EHR data; evaluation of alternative models for studying the underlying biological mechanisms associated with phenotypic variability in complex traits based on genome-wide association studies (GWAS), transcriptome-wide association studies (TWAS), and others, including analyses of time-dependent traits; and interpretation of research results and preparation of extension articles and scientific papers. The researcher will also be expected to contribute to new research directions and drafting research proposals, and training of graduate students.  Pepartment Contact for Questions  Additional Qualifications   | Position Summary          | seeking applicants at the Postdoctoral Fellow level to work in the area of genetic epidemiology. The successful candidate will work under the supervision of Dr. Tae-Hwi Schwantes-An whose lab focuses on cardiometabolic diseases such as alcohol-related liver disease, metabolic dysfunction associated steatotic liver diseases, and pulmonary arterial hypertension. Additionally, the candidate will have access to Indiana Biobank, a 50,000 participant cohort with genetic and linked electronic health records dataset. We are interested in candidates with expertise in genetic epidemiology, quantitative genetics, qualitative genetics and experiences in multi-omics data such as RNASeq and metabolites.  As the nation's largest medical school, IUSM is committed to being an institution that not only reflects the diversity of the learners we teach and the patient populations we serve, but also pursues the values of diversity, equity and inclusion that inform academic excellence. We desire candidates who enhance our representational diversity, as well as those whose work contributes to equitable and inclusive learning and working environments for our students, staff, and faculty. IUSM strives to take an anti-racist stance, regularly evaluating and updating its policies, procedures, and practices to confer equitable opportunities for contribution and advancement for all members of our community. We invite individuals who will join us in our mission to advance racial equity to transform health and wellbeing for all throughout the state of Indiana.  Applications will be received until the position is filled. Please apply to the following link: |
| Questions Tae-Hwi Schwantes-An (tlschwan@iu.edu)  Additional Qualifications  | Basic Qualifications      | Genetics, Quantitative Genetics) or another related field. Experience in R, Python, Jupyter Notebook and genetic/genomic packages (e.g., PLINK2, REGENIE, RFMIX, GCTA, DESEQ2, MR, FUMA) are needed. Experience with data analytics of high-throughput phenotypes and genomic prediction, with interfacing with cluster and cloud computing environments, and with data integration across biological data types is preferred. Preference will be given to candidates with a strong publication record and good scientific communication skills. The successful candidate will be responsible for: developing and implementing analytical pipelines for data editing/filtering and data integration, quantitative genomic analyses of complex traits using genomics and other omics data sources; developing and/or comparing statistical models, with a focus on machine learning methods, for more accurate predictions of polygenic risk scores and patients phenotyping using EHR data; evaluation of alternative models for studying the underlying biological mechanisms associated with phenotypic variability in complex traits based on genome-wide association studies (GWAS), transcriptome-wide association studies (TWAS), and others, including analyses of time-dependent traits; and interpretation of research results and preparation of extension articles and scientific papers. The researcher will also be expected to contribute to new research directions and drafting research proposals, and   |
|  |                           |   |
| Special Instructions   | Additional Qualifications |   |
|  | Special Instructions      |   |

| Priority Application<br>Review Deadline |                 |
|---|-----------------|
| <b>Expected Start Date</b>              |                 |
| OAA#                                    | IUSM-01941-2024 |

### **Supplemental Questions**

Required fields are indicated with an asterisk (\*).

- 1. \* How did you hear about this position?
  - Personal Contact: At Professional Meeting or Conference
  - Personal Contact: Direct Contact by Search Committee
  - · Personal Contact: Referred by colleague or advisor
  - · Personal Contact: School of Medicine recruiter
  - · Personal Contact: IUHP Physician Recruiter
  - · Announcement: Other Journal or Magazine
  - Announcement: Other Website
- 2. \* Are you a dual career partner (your partner or spouse is already being recruited)?
  - Yes
  - No

### **Applicant Documents**

#### **Required Documents**

- 1. Curriculum Vitae
- 2. Letter of Application

#### **Optional Documents**

1. List Of References