Postdoctoral Position in genetics and systems biology at UCSF

The Baranzini Laboratory is located on the new and vibrant Mission Bay Campus of the University of California, San Francisco. The lab is headed by Dr. Sergio E Baranzini (PhD), and focuses in identifying and evaluating the genetic contribution of common and rare variants to the study of multiple sclerosis (MS) susceptibility, exacerbations, and drug response. Our research interests encompass pharmacogenetics, gene-gene/gene-environment interactions, and large-scale population genetics in the context of MS and related traits. The lab is currently funded by the National Institutes of Health (NIH), the US Department of Defense (DoD) and the National Multiple Sclerosis Society (NMSS).

We are seeking a highly motivated individual to play a leading scientific role in a project involving complex biological data generation and integration approaches, including but not limited to the analysis of common and rare variation, pathway analysis, network biology, RNA expression, and brain imaging.

This individual will work in close collaboration with Dr. Baranzini and a highly talented and motivated team to develop and implement research projects focused on MS genetics and systems biology. The primary expectations of this position are to lead original scientific research, and to mentor students, staff, postdoctoral fellows, and junior scientists within the lab. The successful applicant will have a strong record of peer-reviewed publications in the field of human genetics, biostatistics, or a related field that highlights their productivity and commitment to the field of biomedical research. A strong computational background and familiarity with performing genetic studies in complex diseases is highly desired, but not a requirement. Experience in wet lab is also a plus.

Our group is highly collaborative and the successful applicant must be able to effectively communicate with clinicians, geneticists, and immunologists as a productive part of a cohesive team. We are looking for a colleague with a strong sense of “team effort” and a passion for teaching and mentoring students. In addition, the successful applicant must have an exceptional statistical background, excellent writing skills, and innovative biological insight to join our team at the forefront of characterizing and evaluating the etiology of pediatric asthma in diverse human populations.

The ideal candidate will have a PhD in Human genetics, Bioinformatics, or a related field, and fulfill most of the following requirements:

- Experience handling and analyzing large-scale genomic data, including large-scale analysis of next generation DNA sequencing data, as well as array based genotype data (GWAS, gene expression arrays, etc)
- Experience and effective utilization of computer clusters
• Familiarity with statistical software (e.g., PLINK, IMPUTE, EIGENSTRAT, etc.) with the ability to perform analyses, interpret, and effectively communicate results
• Programming experience in a statistical and/or scripting language (R, Perl, etc.)
• Familiarity with network biology principles
• Familiarity with genomic/genetic databases (e.g., UCSC genome browser, dbSNP, etc.) and software packages (e.g., PLINK, IMPUTE2, ANCESTRY, etc.) relevant to the study of human genetics
• Record of publishing in peer-reviewed journals
• Excellent written and verbal communication skills, and the ability to manage multiple projects

Responsibilities

• Provide leadership to staff biostatisticians and geneticists in the design, implementation, and interpretation of genetic analyses
• Work closely with programmers and biostatisticians to develop algorithms and pipelines for genetic analysis and their integration with network biology
• Evaluate potential research projects to identify novel hypotheses and feasible genetic analysis strategies across several study designs (population extremes, case/control, trios, etc.)
• Apply a variety of statistical genetics analytical techniques (next generation sequencing analysis, gene-gene interactions, CNV analysis, etc.)
• Provide expertise and advice to internal and external collaborators on experimental design and genetic analysis
• Directly mentor students, postdoctoral fellows, and junior scientists in the application of statistical genetics techniques
• Interact with clinicians, biostatisticians, immunologists, and geneticists to perform statistical analyses
• Prepare manuscripts independently and in collaboration with lab members for publication in peer-reviewed journals. Candidate’s authorship position on manuscripts will be based on scientific contribution and merit.
• Prepare grant proposals in conjunction with Dr. Baranzini to secure funding to study the genetics of MS and related traits
• Present research at a national/international genetics or MS related conferences (e.g., American Society of Human Genetics, ECTRIMS/ACTRIMS)

UCSF is an Equal Opportunity/Affirmative Action Employer. The Burchard Lab is committed to increasing diversity in the sciences. Applications from women and minorities are encouraged.

For more information, please visit: http://baranzinilab.ucsf.edu
To apply, please send CV, the names of two references and/or letter of recommendation, and a short research statement (1pg) as a single PDF to Sergio E Baranzini, PhD at Sergio.baranzini@ucsf.edu.