Postdoctoral Fellow Positions in Functional Genomics & Cancer Metabolism

Position Title:
Genetic and Metabolic Dependencies in Cancer Cells

Position is with:
Michael Aregger Group; Molecular Targets Program; National Cancer Institute (NCI)

Position Description

Fully funded postdoctoral research positions for experimental and computational biologists are available in Dr. Michael Aregger's Functional Genomics Section within the Molecular Targets Program at the National Cancer Institute (NCI), National Institutes of Health (NIH). Our group's research focuses on how cancer cells rewire gene expression and metabolism to adapt to changing environmental conditions. We apply CRISPR-based genome engineering tools and functional genomics approaches to reveal genetic interactions and cancer dependencies, and to identify regulators of metabolic plasticity in cancer cells. Our lab expertices on developing innovative genetic screening approaches and we have access to state-of-the art facilities including next-generation sequencing, single-cell analysis platforms, mass spectrometry, flow cytometry and animal facilities.

Several projects are currently available including: 1) applying high-throughput strategies to identify context-dependent fitness genes across changing environmental conditions; 2) mapping genetic interactions between metabolic genes; 3) identification of synergistic targets with metabolic inhibitors. To learn more about our research visit our website:

https://ccr.cancer.gov/molecular-targets-program/michael-b-aregger

Recent related publications:

1. Application of CHyMErA Cas9-Cas12a combinatorial genome-editing platform for genetic interaction mapping and gene fragment deletion screening. *Nature Protocols*, 2021.
2. Genetic interaction mapping and exon-resolution functional genomics with a hybrid Cas9-Cas12a platform. *Nature Biotechnology*, 2020.
3. Systematic mapping of genetic interactions for de novo fatty acid synthesis identifies C12orf49 as a regulator of lipid metabolism. *Nature Metabolism*, 2020.

The Aregger lab is part of NCI's Center for Cancer Research (CCR). CCR offers fellows access to cutting-edge technologies and cores, a highly collaborative environment, awards and research forums to recognize outstanding postdocs, continuous scientific symposia and lectures featuring leading researchers. Read more about CCR, the benefits of working at CCR and hear from our staff on their CCR experiences:

https://ccr.cancer.gov/about
https://ccr.cancer.gov/careers/benefits/why-ccr
https://ccr.cancer.gov/careers

The Aregger lab is based on the NCI-Frederick campus. Frederick is the second largest city in Maryland, surrounded by mountain views with a vibrant Main Street community. The city offers outstanding schools, a balanced and thriving economy and a highly educated workforce. The NCI-Frederick campus is within driving distance to Washington DC, Baltimore and Bethesda providng numerous opportunities for dual careers.

Qualifications and Job Details

Applicants must have a Ph.D. or MD/Ph.D degree and expertise in molecular biology, genetics, biochemistry, cell biology, mammalian cell culture or bioinformatics. Motivated candidates who are interested in innovative research using cutting-edge technologies are encouraged to apply. Applicants with research experience in functional genomics, CRISPR technology, molecular biology and bioinformatics are especially encouraged to apply.

To Apply:
Applicants should send a brief cover letter, CV including bibliography, and contact information of three references to Michael Aregger: michael.aregger@nih.gov

Employer Name:
National Cancer Institute

Position Location:
Frederick, MD, USA

Disclaimers:
Salary is commensurate with research experience and accomplishments. This position is subject to a background investigation. Federal employees must be fully vaccinated against COVID-19. HHS, NIH, and NCI are Equal Opportunity Employers. The NIH and NCI are dedicated to building a diverse community in its training and employment programs and encourages the application and nomination of qualified women, minorities, and individuals with disabilities.