Kohlgruber Lab

Boston Children's Hospital

Postdoctoral fellow position at Boston Children's Hospital

The Kohlgruber Lab investigates the immune-specific basis of human diseases and applies high-throughput molecular, genetic, and immunological assays to decipher immune system specificities and interactions. We combine human and mouse immunology, with single-cell transcriptomics, synthetic biology, and immune-receptor specificity screening approaches to understand the molecular underpinnings of autoimmunity, cancer, and infectious disease. Our work lies at the intersection of translational immunology and biotechnology, where we seek to pioneer innovative strategies to improve our ability to interrogate and modulate the immune system and leverage our findings toward the development of precision vaccines and immunotherapeutics.

We are seeking a postdoctoral research fellow to work on an exciting research project dissecting the antigen-specific basis of autoimmunity. The research project will utilize human samples and cell lines to study the antigen specificity and function of synovial T cells in rheumatoid arthritis and checkpoint inhibitor-induced autoimmune adverse events. Multidimensional analyses will be used to conduct the research, including flow cytometry, single-cell profiling, genome-wide T cell antigen discovery screens, high throughput T cell repertoire analysis, autoantibody specificity profiling using PhIPseq, spatial transcriptomics, and in vitro functional assays. The research will require that the individual be a keen learner, have excellent communication skills, be comfortable with new technology, and work as a member of a highly collaborative team. The lab works closely with immunologists, rheumatologists, and oncologists to participate in rewarding translational immunology research.

The lab is part of the Division of Immunology at Boston Children's Hospital. The Boston area is a vibrant and dynamic scientific community that offers unique opportunities for scientific growth and provides many opportunities to interact with other PIs and trainees. The successful candidate will have access to the larger Harvard Medical School environment for training, access to core facilities, and seminars. The Kohlgruber Lab strives to create an impactful and supportive research environment, prioritizes mentorship, and enables people to get to the next step in their careers.

Qualifications:

- Successful candidates must hold (or soon receive) a Ph.D., M.D., or M.D/Ph.D. degree in the field of immunology, molecular and/or cellular biology, genetics, biostatistics/bioinformatics, or other quantitative sciences.
- Candidate(s) should have a strong track record of productivity, or domain expertise, as evidenced by first-authored publications in peer-reviewed scientific journals/preprints or demonstrated contribution to ongoing projects.
- Candidate(s) should have the communication and interpersonal skills required to make a positive contribution to a thriving intellectual environment and work collaboratively in a team.
- Other desired (but not required) skills for this position include experience with human T cell assays, ability to run multi-color flow cytometry, processing and analyzing single-cell transcriptomics datasets, and/or biotechnology development.

Application Information:

- Review of applications will begin immediately and be considered on a rolling basis.
- Full-time position with competitive salary/benefits commensurate with experience. The position is fully funded and may be held for up to 5 years.

- To apply, please email Dr. Ayano Kohlgruber (Ayano.Kohlgruber@childrens.harvard.edu) with the following documents:
    - An updated curriculum vitae (CV).
    - A brief statement or cover letter of research interests, motivation, and experience; or publication/manuscript/pre-print the candidate has written.