

**JOB DESCRIPTION****Job Title: Postdoctoral fellow – Mucosal Immunology / Host–Microbe Interactions****Job Code:****Salary Plan:****Group/Lab: Kwon Lab****Direct Supervisor: Douglas Kwon****Employing Hospital and Department: Ragon Institute of Mass General, MIT, and Harvard****Last Update: 4/14/26****Minimum degree and field of knowledge: PhD required****Years of experience required: 3 or more years of relevant experience****Summary:**

The Ragon Institute is a highly unique, innovative, and collaborative research center at the forefront of biomedical science. Founded by Massachusetts General Hospital, MIT, and Harvard, the Ragon vision is a bold one: to harness the power of the immune system to prevent and cure human disease on a global scale. This vision is pursued and advanced every day by a group of highly motivated individuals. The Ragon Institute, at every level, depends upon collaboration, compassion, dedication, and innovation. It is a results-oriented organization that seeks people who not only embrace these values but who thrive in teams and want to work in a dynamic environment.

The Kwon Laboratory ([www.kwonlab.org](http://www.kwonlab.org)) at the Ragon Institute of Mass general Brigham, MIT and Harvard in Cambridge, MA has an opening for a highly motivated postdoctoral fellow to study adaptive immune responses to vaginal microbiota and their role in shaping mucosal inflammation and women's health outcomes, following up on recent studies published by our group in *Cell*, *Immunity*, *The Lancet Infectious Diseases*, *Nature Microbiology*, and *Cell Host and Microbe*. The successful candidate will lead projects aimed at identifying antigen-specific T cell responses, defining their functional consequences, and elucidating how microbial exposures shape mucosal immunity. The person hired will work under the supervision of Dr. Kwon conducting patient-oriented translational research utilizing large, well-characterized patient cohorts based in the US and sub-Saharan Africa to understand host-microbiota interactions and their impact on HIV, pregnancy, fertility, and cancer.

Candidates will have ample opportunities to acquire and develop new skills, work closely with the PI and collaborators, and communicate results to the scientific community through conference presentations and peer-reviewed publications while working in a supportive, highly collaborative, and energetic environment. State-of-the-art facilities are available within an exceptionally energetic research setting at the Ragon Institute, which is part of Mass General Brigham, the Massachusetts Institute of Technology, and Harvard Medical School. We are a mission-oriented group of highly motivated scientists from the fields of immunology, microbiology, virology, genetics, and technology development who perform translational research.

**Job Duties:**

Under the direction of the principal investigator, the applicant will independently carry out activities performing research. Duties include:

- Design and execute experiments to characterize adaptive T cell responses to vaginal microbiota
- Perform TCR sequencing, cloning, and expression to define antigen specificity
- Map microbial epitopes recognized by T cells and assess functional responses
- Conduct immunologic assays including flow cytometry, ELISpot, cytokine profiling, and in vitro T cell assays
- Work with human mucosal samples, including tissue and cervicovaginal specimens
- Integrate findings with microbiome and clinical datasets
- Analyze and interpret experimental data and present findings internally and externally
- Maintain detailed documentation of experimental work
- Collaborate closely with interdisciplinary teams across immunology, microbiology, and computational biology
- Mentor students and technicians
- Maintain close communications with the PI regarding progress
- Write, edit, and submit manuscripts/abstracts detailing the results of the project
- Demonstrate integrity, excellence, accountability and teamwork in all interactions

**Qualifications:**

- PhD, MD, or MD/PhD in immunology, microbiology, molecular biology, or related field
- Strong background in cellular immunology, particularly T cell biology
- Experience with molecular biology techniques (e.g., cloning, sequencing)
- Experience with flow cytometry and functional immune assays
- Interest in host–microbe interactions and mucosal immunology
- Highly motivated, independent, and able to work in a collaborative, fast-paced environment
- Strong organizational and communication skills
- Must have good interpersonal skills

The above job description details the major duties and qualifications of the listed position. The individual hired to this position confirms that they are able to perform all duties outlined. Although the specific duties and responsibilities of this position may vary slightly, the supervisor of this position will ensure that the individual hired to this position is trained and qualified to complete each task assigned.

**To apply please send a cover letter, CV, and contact information for three references to: Doug Kwon, MD PhD at [dkwon@mgh.harvard.edu](mailto:dkwon@mgh.harvard.edu).**