

August 7, 2020

Four NIH-funded post-doctoral positions are available for enthusiastic, hard-working individuals to conduct research into the mechanisms that impact T cell function in mouse models of cancer and autoimmunity in Dr. Dario Vignali's laboratory at the University of Pittsburgh.

Position #1: The successful applicant will investigate the role of regulatory T cells (Tregs) within the tumor microenvironment with the goal of understanding novel mechanisms that control their function and survival, and identifying and developing Treg-specific targets for therapeutic intervention. This project will emphasize use of complex mouse models, system biology approaches and other sophisticated immunological techniques.

Position #2: The successful applicant will be a part of a multi-institutional team funded by a research program grant examining the role of inhibitory receptors, PD1 and LAG3, on T cells in the tumor microenvironment. This project will emphasize use of complex mouse models, system biology approaches and other sophisticated immunological techniques.

Position #3: The successful applicant will work on two related structure-function projects in collaboration with structural biologists that will gain a better mechanistic understanding of (a) LAG3, an inhibitory receptor and immunotherapeutic target, and (b) TCR:CD3 structure and function. This project will emphasize use of molecular and biochemical structure-function analysis in cell lines and complex mouse models, high and super resolution microscopy techniques and other sophisticated immunological techniques.

Position #4: The successful applicant will investigate the regulatory mechanisms to collapse and lead to autoimmunity, with an emphasis on Tregs and inhibitory receptors, with the goal of identifying novel therapeutic strategies. This project will involve use of the NOD mouse model of Type 1 Diabetes, system biology approaches and other sophisticated immunological techniques.

These positions will focus on gaining a mechanistic understanding and therapeutic development of pathways and processes under investigation. Candidates should have a PhD or MD/PhD (no more than 2 years post second degree), a solid understanding of basic immunology, and practical experience with mouse models of disease. Training grant eligible candidates (US citizens and green card holders) are strongly encouraged to apply. Candidates will also develop skills in mouse models of cancer, immune function assays, flow cytometry, microscopy, biochemistry and molecular biology techniques. The candidate will also gain considerable experience writing manuscripts, reviews and grants along with oral presentations. Additional duties will include mouse colony management, training of undergraduate and graduate students, participation in department activities, presentations at lab, local and national meetings and any other assignments that the PI may request. Additional information about the Vignali Lab can be found at:

Twitter: @Vignali_Lab

Websites: <https://www.vignali-lab.com>

<http://www.immunology.pitt.edu/person/dario-vignali-phd>

Interested candidates should send (a) a cover letter noting the position of interest listed above, a brief description of research interests and future career goals, (b) CV, and (c) contact information for three references, by E-mail to Ms. Barb Beatty (beattyb@pitt.edu)