Ramandeep Gill

Pre-doctoral trainee 2023-2025

Raman is a third year PhD candidate studying the immunogenic role of fibroblasts in inflammatory skin diseases such as Atopic Dermatitis (AD). Using cutting edge single-cell and spatial transcriptomic techniques, she seeks to uncover novel pathways by which fibroblasts interact with immune cells during Type II inflammation and understand the strengths and limitations of using various mouse models to recapitulate human AD. Together with the lab, Raman generates and analyzes high-dimensional scRNA-seq, MERFISH, and ATAC-seq data from inflammatory skin mouse models to inspire hypotheses to validate and perturb using in vitro and in vivo methods. Raman is investigating how fibroblast spatial localization and transcriptional/epigenetic heterogeneity influence fibroblast plasticity and function at homeostasis and in disease contexts. She hopes these findings will help inform new therapeutic targets to treat AD and other inflammatory skin diseases.

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