
BIOGRAPHICAL SKETCH

NAME: Sehgal, Lalit

eRA COMMONS USER NAME: lsehgal

POSITION TITLE: Assistant Professor of Medicine, Hematology

A. Personal Statement

I am an Assistant Professor of Medicine (currently transitioning to associate professor with Tenure) in the Division of Hematology at The Ohio State University. I lead a research group within the division of Hematology focusing on 1) understanding prosurvival signaling in cancer cells and 2) developing experimental therapeutics for hematological disease. I have extensive experience generating and characterizing mouse models to study development and therapy evaluation for the past 15 years, particularly with cell cycle-regulated processes. My research focuses on specific aspects of cancer biology, with a long-term goal of developing new methods for the prevention and treatment of hematologic disease. I have had the unique opportunity to conduct hypothesis-driven, basic science studies that have led to translating several targeted therapies into human clinical trials.

After my Ph.D., I have published over 25 papers in high-impact factor peer-reviewed journals, including *Leukemia*, *Journal of Cell Science*, *Molecular Biology of the Cell*, *CMLS*, and *Scientific Reports*. In addition, I have presented multiple invited oral presentations at national and international conferences. My expertise includes molecular genetics, epigenetics, cellular biology techniques, molecular and cellular immunology, preclinical animal models for human malignancy, and developing novel experimental therapeutic approaches to lymphomas. In addition, I also serve on national/international study sections, including the American Cancer Society, SITC, NIH-NCI, and blood cancer grants. Finally, I have trained and mentored graduate students, medical students, postdoctoral fellows, clinical fellows, and high school students. I am currently training three postdoctoral fellows and one graduate student. Three of my current trainees have been recipients of the Pelotonia Fellowship to support their Tenure in my research laboratory.

My long-term goal is to understand the prosurvival signaling mechanism in Lymphoma that promotes survival and tumor progression and identify a therapeutic target to treat. Since starting my academic career at OSU (August 2018), I have worked to develop a research program in Non-Hodgkin's Lymphoma (NHL). I have built a robust team of clinical, translational, and basic scientists and external collaborators from industry and academic institutions. I have also taken the lead in obtaining clinical samples and translating scientific data to identify therapeutic targets that can extend to the clinic.

We currently employ state-of-the-art technologies like spatial transcriptomics scRNA-seq and deconvolution analysis to understand the tumor microenvironment and cell state and identify Mantle cell lymphoma. In addition, I have been awarded the Young Investigator award and the CURES accelerator award. I am a principal investigator on NIH/NCI R01 to develop a novel therapy for better outcomes in Mantle cell lymphoma; the active grant does not overlap with the currently proposed aims in any context. In addition, I have three pending NIH-NCI-R01.