

Nicholas E. Navin, PhD Professor & Chair Department of Systems Biology Grady Saunders Distinguished Professor Director, CPRIT Single Cell Genomics Center MD Anderson Cancer Center Decoding Premalignant Breast Cancer Progression with Single Cell Genomics

Dr. Nicholas Navin is the Professor & Chair of the Department of Systems Biology at the MD Anderson Cancer Center. He is the director of the CPRIT Single Cell Genomics Center and co-director of the Advanced Genomic Technology Center (AGTC). He is the co-leader of the Human Breast Cell Atlas Project that aims to define cell types and states in normal mammary tissues. Dr. Navin completed his Ph.D. and postdoctoral studies at the Cold Spring Harbor Laboratory and Stony Brook University. He is internationally recognized for his seminal work on developing single cell DNA sequencing techniques to study cancer. Dr. Navin developed one of the first single cell DNA sequencing methods called SNS (Navin et al. 2011 Nature) which played a pivotal role in establishing the field of single cell genomics. His current research work focuses on understanding clonal evolution in cancer, in the context of invasion, metastasis and therapy resistance. His research group has identified a punctuated model of copy number evolution in breast cancer, multi-clonal invasion in DCIS breast cancer and transcriptional reprogramming during chemotherapy resistance in triplenegative disease. Dr. Navin has been the recipient of many awards, including the AAAS Wachtel Award, the ACS Research Scholar Award, the Living Legend Basic Science Award, the Damon-Runyon Innovator Award, the AAAS Fellow Award, the AACR Outstanding Achievement in Basic Research Award and was a Finalist for the 2019 Blavatnik Award.