



Jonathan M. Irish, Ph.D. is Associate Professor of Cell & Developmental Biology at Vanderbilt University. The Irish lab uses bench and computational cytometry techniques to study how signaling controls cell identity in healthy human tissues, cancer, and immune disorders. Jonathan trained at Stanford University with Dr. Garry Nolan (PhD) and Dr. Ronald Levy (postdoc) and was a pioneer in the use of phospho-flow cytometry to reveal and characterize risk-stratifying leukemia and lymphoma cells. Since moving to Vanderbilt, the Irish lab has focused on adapting the immunologist's single cell toolkit to study human tissue and tumors with a recent focus on neural stem cells and brain cancer. Jonathan is also active in the International Society for the Advancement of Cytometry (ISAC) and is Scientific Director of Vanderbilt's Cancer & Immunology Core (CIC), a shared resource providing high dimensional cytometry services. In the last 5 years, the Irish lab has published >50 peer-reviewed manuscripts dissecting cancer and immune cell signaling interactions and creating machine learning tools to quantify cell identity. In addition to the discovery of clinically significant cancer cell subsets, Jonathan and the Irish lab have developed widely-used computational tools for single cell analysis, including Cytobank, MEM, RAPID, and T-REX.