

Joshua A. Bauer, Ph.D.

In 2011, following a postdoctoral fellowship in the Vanderbilt-Ingram Cancer Center, I transitioned to a staff scientist position in the High-Throughput Screening (HTS) core facility, where my primary focus was on oncology-based screens. In addition, I was able to quickly establish new core services for functional genomics screening (FGS) and high-content imaging (HCI). I got promoted in 2012 to Research Track Faculty where I was involved in many collaborative projects. In 2015, I was awarded the title of Director of FGS and HCI within the HTS facility. In 2019, I was appointed the Managing Director of the HTS facility.

I have a broad background in pharmacology, cancer biology and biochemistry, with specific experience in oncology-related functional genomics screening (FGS), high-content screening (HCS), and chemical/drug library screening. I currently lead the HTS team to facilitate the development of biological assays and screens to enable the discovery of chemical and genetic modulators of a variety of molecular targets and pathways in cell biology for therapeutic implications. My research interests are focused on bioinformatics and chemical genomic approaches, including FGS and HCI, to identify novel drug targets and to better understand the molecular and genetic mechanisms that underlie how cells and patient-derived samples (eg, organoids) respond to therapeutics. A main goal is to identify novel strategies to overcome therapy resistance or new indications that will have clinical application.