

Jon Weidanz, MPH, PhD Associate Vice President for Research The HLA-E Program from Conception to Acquisition

Jon Weidanz, MPH, Ph.D. is an Associate Vice President for Research and a Professor with tenure, in the Department of Kinesiology, College of Nursing and Health Innovation, and a member of the Multi-Professional Center for Health Informatics at the University of Texas at Arlington (UTA). He also holds a courtesy faculty appointment in the Department of Bioengineering at UTA. He founded the North Texas Genome Center at UTA in 2018 and served as its director until 2022. Dr. Weidanz has broad experience and interest in biotechnology with particular knowledge and expertise in immunology, immuno-engineering, and immunotherapy research and product development. He has more than 60 peer-reviewed articles, book chapters and published conference proceedings and has been an invited speaker at more than 50 conferences, universities and companies. While at Texas Tech University Health Sciences Center (TTUHSC), he was named as a Distinguished Professor and recognized for his teaching accomplishments, receiving the prestigious President's Excellence in Teaching Award and the Chancellor's Council Distinguished Teaching Award. While at TTUHSC, he established the Department of Immunotherapeutics and Biotechnology and served as its first Chair. Prior to becoming Chair, he was the founding director of the Center for Immunotherapeutics Development. Additionally, he served as Associate Dean of the Graduate School and director of the Biotechnology graduate program.

His research has been funded by various agencies including the NIH, over many years to identify tumor-specific peptides presented by the human leukocyte antigen (HLA) system for use as potential targets for immunotherapy. As part of this focus, his laboratory developed methods to discover antibodies that recognize specific peptide/HLA complexes that his laboratory dubbed as T-cell receptor mimicking (TCRm) antibodies. TCRm molecules share the binding selectivity traits of T-cell receptors while retaining the positive attributes of antibodies. TCRms are highly valued as research tools and his group has used them extensively to study antigen presentation in tumor cells. Furthermore, his laboratory has been active in research and development of other immunotherapeutic agents including soluble T-cell receptors, and multifunctional/multispecific protein-based molecules. His earlier interests led to the laboratory's most recent exciting project, the discovery of a TCRm, EXX-1, to Qa-1b/Qdm peptide complex, the ligand for NKG2A/CD94 inhibitory receptor.

The NKG2A axis is a newly discovered immune checkpoint that suppresses the cytolytic function of Natural Killer cells and CD8+ T-cells in the tumor microenvironment. His laboratory has shown that EXX-1 TCRm can enhance anti-tumor immunity against tumors in mice. Translation of these recent basic research findings to immunotherapies for treating human cancers is being pursued by his former company, Abexxa Biologics that was recently acquired by Boehringer Ingelheim (https://www.boehringer-ingelheim.us/press-release/boehringer-ingelheim-acquires-abexxa-biologics-further-expand-its-research-efforts).

Additionally, Dr. Weidanz is a seasoned entrepreneur with more than 25 years of relevant corporate biotechnology accomplishments, experience in the transformation of early-stage university technology into companies, directly involved as a founder or co-founder in the formation of four biotech start-up companies with two exits to pharma companies. He holds more than 40 issued, pending, and provisional patents (US and international) with 6 patents having been out-licensed to 3rd parties for commercial development. Recently, he was elected to the National Academy of Inventors for his outstanding contributions as an innovator.