

## Shannon E. Weigum, Ph.D. – Bio

Dr. Shannon E. Weigum is currently the Vice President of Biological Sciences at Paratus Diagnostics, located in San Marcos at STAR Park University Incubator. She has over 15 years of combined academic/industry research experience in assay development and microfluidics (i.e. lab-on-a-chip) platform design for detection of DNA/RNA, protein, and whole-cell based biomarkers. She obtained her Ph.D. in Biochemistry from UT Austin and completed a Postdoctoral Fellowship at Rice University in Biomedical Engineering. Dr. Weigum also holds an academic position as an Associate Professor at Texas State University in the Materials Science, Engineering and Commercialization (MSEC) Program and Department of Biology. Her research activities have focused on the development of low-cost, point-of-care diagnostic sensors using paper-based microfluidics that are applied to infectious disease detection and global health issues. She has over 20 publications and received substantial research funding from NIH, NSF, and the Department of Defense to support her research efforts at Texas State.

## Making the Transition from Academia to Industry

In this talk I will describe my recent experience transitioning between academia and industry. In particular, I will share the lessons I learned for success in each setting and the similarities and differences between the two.

## Detecting Infectious Diseases at the Point-of-Care

Paratus Diagnostics is an early-stage venture focused on developing *in vitro* diagnostic (IVD) devices that provide true sample-to-answer solutions by simplifying all sample preparation steps prior to interfacing with downstream point-of-care diagnostic technologies. Our mission is to resolve the obstacles associated with achieving a “CLIA-waived” (or low-complexity) designation for *in vitro* diagnostic tests through our patented PreparedNow<sup>®</sup> Diagnostic System. In this talk, I will describe the platform technology and immunoassay development process leading to our first launch product, The *ParatusPerio*<sup>®</sup> Test. This test is a multi-plexed assay of six pathogenic oral bacteria and two inflammatory host-response markers that cause severe periodontitis and have been closely linked with other systemic diseases, such as coronary heart disease, rheumatoid arthritis, and Alzheimer’s. Our long-term commercial strategy is to complement the initial launch product with a portfolio of menu options covering, for example, gastrointestinal diseases, sexually transmitted diseases, urinary tract infections, nosocomial infections, tropical diseases, and other illnesses for which a point-of-care diagnostic test will inform clinical decision-making during the patient visit.