Dr. Anhong Zhou is leading a Molecular and Cellular Sensing and Imaging Laboratory. His research interests include the development of sensing and imaging technologies for human health and environmental monitoring, including cancer early detection, biomechanics and biophysics of embryonic (stem) cells differentiation on 3D nanostructures, PM2.5 induced cytotoxicity, and water quality monitoring.

Dr. Zhou’s laboratory has been working on the design and fabrication of microfluidics device integrated with sensor arrays that have potential to be applied for the ultrasensitive detection of waterborne pathogen DNA and/or multiple heavy metal ions in water. Recently, his research team has successfully synthesized highly water soluble nanocrystals as multi-modal nano-bioprobes for fluorescence, surface-enhanced Raman scattering (SERS), magnetic resonance imaging (MRI) for cancer diagnosis and treatment.