



Brent L. Iverson

The University of Texas at Austin

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Professor Brent L. Iverson is the W.J. and V.M. Raymer Professor and a Distinguished Teaching Professor in the Department of Chemistry at the University of Texas at Austin. He attended Stanford University then received a Ph.D. from the California Institute of Technology in 1987, working in the laboratory of Professor Peter Dervan. After postdoctoral work at the Scripps Research Institute in La Jolla, he began teaching at UT in 1990. His research career has spanned the interface of chemistry and biology. On the chemical side, his laboratory created the first synthetic foldamer shown to adopt an abiotic higher order structure in water.

Later work led to the development of threading polyintercalating molecules that bind specifically to long sequences of DNA, exhibiting high affinities and extremely slow off-rates. More recently, the laboratory has been exploiting advances in the understanding of factors influencing aromatic stacking geometries to create dynamic solid materials capable of dramatic color changes in response to various stimuli. On the molecular biology side, his laboratory has helped pioneer the use of fluorescence-activated cell sorting (FACS) technology to screen relatively large protein libraries for directed evolution applications. Earlier work helped in the development of an engineered antibody called Anthim, an FDA-approved cure for late stage anthrax that has now been added to the Strategic National Stockpile (SNS). More recent efforts have been geared toward creating better screening technologies for enzyme engineering. The latest such technology, called YESS, uses expression in the yeast endoplasmic reticulum combined with FACS sorting to enable the engineering and comprehensive analysis of proteases, kinases and sortases. In 2013, Brent became the second Dean of the School of Undergraduate Studies (UGS) at UT. UGS was created to deploy then manage a reimagined and innovative core curriculum along with other university-wide academic programs, while simultaneously providing an entry point for first-time students who do not yet know what major they would like to pursue.