



## John Higgins

Adjunct Professor, Materials Science and Engineering

### Bio

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#### BIO

John received a BS in biochemistry from Albright College and his Ph.D. in synthetic organic chemistry from Brown University. After completing a Postdoctoral Fellowship at the Sloan-Kettering Cancer Institute in NYC in the departments of Positron Emission Tomography and Neurology, he joined the Medicinal Chemistry Discovery group at Johnson Matthey Biomedical. There he made several significant contributions to early research projects on new Pt- antitumor drugs and peptide-based diagnostic radio-imaging agents. After nearly a decade as a discovery med chemist, he moved on to drug development in positions of increasing responsibility at J&J and Sanofi-Aventis. He and his teams have specialized in the areas of drug delivery, solid state chemistry and biomaterials in relation to improving the bioperformance of therapeutic agents. Towards this end, he has led the successful implementation of a wide range of methodologies into drug discovery space including prodrug design for enhanced solubility/permeability, miniaturized polymeric amorphous dispersions and nanoparticle technologies.

John currently is Executive Director of the Discovery Pharmaceutical Sciences department at Merck's Discovery Center. In this multidisciplinary role, he is responsible for oversight of the biopharmaceutical and drug delivery aspects of Merck's discovery programs (small molecules and peptides) as well as the identification of new enabling technologies. Over his over 30 year pharma career, he is co-inventor on 13 US Patents and author of numerous and diverse publications and book chapters in the fields of organic, solid state & medicinal chemistry and drug delivery.

John also currently serves as an Adjunct Associate Professor at the University of Pennsylvania School of Medicine, where he regularly teaches classes in various aspects of drug discovery and development.