BRUCE GANEM

Brief Biography

Bruce Ganem is the Franz and Elisabeth Roessler Professor of Chemistry and Stephen H. Weiss Presidential Fellow at Cornell. He graduated from Harvard College in 1969 with a B.A. in Chemistry, and received his Ph.D. from Columbia University in 1972 under the direction of Gilbert Stork. He joined the Cornell faculty in 1974, where he has served as Chairman of the Department of Chemistry & Chemical Biology from 1993 to 1997 and in 2001.

A synthetic organic chemist by training, Dr. Ganem has broad scientific research interests across the interfaces of organic, analytical, and biological chemistry. His synthetic and mechanistic studies of the shikimic acid pathway helped elucidate how plants and microorganisms biosynthesize aromatic amino acids, vitamins, hormones, and other essential nutrients. Dr. Ganem has also developed new synthetic methods for assembling naturally-occurring polyamines. His work in carbohydrate chemistry has focused on the synthesis and therapeutic uses of saccharide analogs ("glycomimetics") as biological mediators.

In the area of bioanalytical chemistry, Dr. Ganem showed for the first time that enzyme-substrate, receptor-ligand and other noncovalent macromolecular complexes could be detected and analyzed by electrospray mass spectrometry under physiological conditions. A principal focus of his current research is the development of new multiple component condensation reactions for use in combinatorial chemistry.

Professor Ganem has authored some 250 scientific papers as well as numerous popular articles about science and science education. He has been a consultant and advisory board member for several pharmaceutical and biotechnology companies. He served as Executive Editor of *Tetrahedron Letters* during 1998-2012, and was appointed Chairman of the Executive Board of Editors of Tetrahedron Publications during 2005-2006. His recent honors include the American Chemical Society's 2007 Creative Invention Award as well as the EPA's 2007 Presidential Green Chemistry Challenge Award.