

Gregg B. Fields, Ph.D.

Dr. Gregg B. Fields received his B.S. and Ph.D. degrees in chemistry from the University of Florida and Florida State University, respectively, and was a Postdoctoral Scholar with Professor Ken A. Dill at the University of California at San Francisco. Dr. Fields joined the faculty at the University of Minnesota in 1991 as an assistant professor. He was promoted to associate professor with tenure in 1995 and then achieved the rank of full professor of chemistry & biochemistry at Florida Atlantic University in 1997. In 2008, Dr. Fields became a Robert A. Welch Foundation Distinguished University Chair in Chemistry in the Department of Biochemistry at The University of Texas Health Science Center at San Antonio. Dr. Fields relocated to the Torrey Pines Institute for Molecular Studies in 2011, where he was a Full Member, Vice President of Research, and Distinguished Chair of Metalloproteinase and Multiple Sclerosis Research. Dr. Fields joined FAU in 2014 as a Full Professor and the Chair in the Department of Chemistry & Biochemistry and the Director of the Center for Molecular Biology & Biotechnology (CMBB). In 2019 he was appointed as Executive Director of the Institute for Human Health & Disease Intervention (I-HEALTH) at FAU, in 2021 became the Co-Director of the Memorial Cancer Institute Florida Atlantic University (MCIFAU) Cancer Center of Excellence, and in 2024 was appointed Vice President for Research at FAU. Dr. Fields is also a Courtesy Professor in the Department of Chemistry at the Herbert Wertheim UF Scripps Institute for Biomedical Innovation & Technology.

The Fields research group has focused on extracellular protease-based diseases, with particular attention paid to tumor metastasis, arthritis, and neurodegenerative diseases. His research interests are in the use of chemical approaches to better understand how protein three-dimensional structures influence cellular and enzymatic behaviors. Chemical approaches were used to develop “mini-protein” models for the study of cellular recognition processes, which in turn allowed for the mapping of protein domains involved in cell binding and signal transduction. Mini-protein models were subsequently utilized to dissect the mechanisms of collagen catabolism, and in the process provided new avenues for protease inhibitor design.

Dr. Fields is an elected Fellow of the National Academy of Inventors (NAI) and the American Association for the Advancement of Science (AAAS). He has authored or coauthored more than 330 scientific publications and has presented more than 250 invited lectures.