Protein Actions: Principles and Modeling describes the basic principles of protein molecules – their structures; their folding, binding and aggregation; their dynamics and mechanisms; and their evolution – as well as the methods of modeling them, including bioinformatics, physics-based computer simulations, and the tools of drug discovery. It is intended for a one-semester course for biological scientists learning quantitative foundations and for physical scientists learning the biology and chemistry. This text is ideal for graduates, advanced undergraduates, and any professional who seeks an introduction to the biological, chemical, and physical properties of proteins.

Ivet Bahar is John K. Vries Chair and Distinguished Professor in the Department of Computational & Systems Biology at the University of Pittsburgh, School of Medicine. She co-founded the Joint PhD Program in Computational Biology between the University of Pittsburgh and Carnegie Mellon University.

Robert L Jernigan is Professor of Biochemistry, Biophysics, and Molecular Biology at Iowa State University and former Director of the Baker Center for Bioinformatics and Biological Statistics.

Ken A Dill is Distinguished Professor in the Departments of Chemistry and Physics and Astronomy at Stony Brook University, and the Louis & Beatrice Laufer Endowed Chair of Physical Biology. He is the founding Director of the Laufer Center for Physical and Quantitative Biology.