

Advances in chemistry, biology, and genomics coupled with laboratory automation and computational technologies have led to the rapid emergence of the multidisciplinary field of chemical genomics. This edited text with contributions from experts in the field discusses evolving concepts, essential techniques, and a wide range of applications to help further the study of chemical genomics. The beginning chapters provide an overview of the basic principles of chemical biology and chemical genomics. This is followed by a technical section that describes the sources of small molecule chemicals; the basics of high-throughput screening technologies; various bioassays for biochemical-, cellular-, and organism-based screens; and computational approaches. The final chapters connect the chemical genomics field with personalized medicine and the druggable genome for future discovery of new therapeutics. A resource section is included in selected chapters for further information.

This book will be valuable to researchers, professionals, and students in many fields besides chemical genomics, including biology, biomedicine, chemistry, and drug discovery.

Haian Fu is a professor of Pharmacology, Hematology, and Medical Oncology at Emory University School of Medicine. He is the Director of the Emory Chemical Biology Discovery Center and leader of the Discovery and Developmental Therapeutics Program at the Winship Cancer Institute of Emory University. Dr. Fu serves as a Steering Committee member for the NIH National Cancer Institute Chemical Biology Consortium and is co-founder of the International Chemical Biology Society. His research focuses on protein-protein interactions in signal transduction pathways that control cell survival and death in normal and cancer cells, as well as targeting these interactions for chemical biology studies and drug discovery. He serves on the editorial board of several scientific journals, including *Current Chemical Genomics*, and edited *Protein-Protein Interactions: Methods and Applications* (2004). Dr. Fu has received various honors, including the PhRMA Faculty Development Award, the Burroughs Wellcome Fund New Investigator Award, the GRA Distinguished Investigator Award, and the Georgia Cancer Coalition Distinguished Cancer Scholar. He is also a recipient of the Award for Excellence in Mentorship from the Emory Graduate Division of Biological and Biomedical Sciences (2000), the Outstanding Postdoctoral Mentor Award from Emory University (2011), and the Emory Pharmacology Teaching Excellence Award (2006).

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