



ANNUAL REVIEW OF BIOPHYSICS AND BIOMOLECULAR STRUCTURE

VOLUME 29, 2000

ROBERT M. STROUD, *Editor*
University of California, San Francisco

WILMA K. OLSON, *Associate Editor*
Rutgers, The State University of New Jersey

MICHAEL P. SHEETZ, *Associate Editor*
Duke University, Durham

www.AnnualReviews.org science@AnnualReviews.org 650-493-4400

ANNUAL REVIEWS

4139 El Camino Way • P.O. Box 10139 • Palo Alto, California 94303-0139

CONTENTS

MEASURING THE FORCES THAT CONTROL PROTEIN INTERACTIONS, <i>Deborah Leckband</i>	1
STRUCTURE AND FUNCTION OF LIPID-DNA COMPLEXES FOR GENE DELIVERY, <i>S. Chesnoy and L. Huang</i>	27
SIGNALING AND SUBCELLULAR TARGETING BY MEMBRANE BINDING DOMAINS, <i>James H. Hurley and Saurav Misra</i>	49
GCN5-RELATED N-ACETYLTRANSFERASES: A STRUCTURAL OVERVIEW, <i>Fred Dyda, David C. Klein, and Alison Burgess Hickman</i>	81
STRUCTURAL SYMMETRY AND PROTEIN FUNCTION, <i>David S. Goodsell and Arthur J. Olson</i>	105
ELECTROKINETICALLY CONTROLLED MICROFLUIDIC ANALYSIS SYSTEMS, <i>Luc Bousse, Claudia Cohen, Theo Nikiforov, Andrea Chow, Anne R. Kopf-Sill, Robert Dubrow, and J. Wallace Parce</i>	155
DNA RECOGNITION BY CYS ₂ HIS ₂ ZINC FINGER PROTEINS, <i>Scot A. Wolfe, Lena Nekludova, and Carl O. Pabo</i>	183
PROTEIN FOLDING INTERMEDIATES AND PATHWAYS STUDIED BY HYDROGEN EXCHANGE, <i>S. Walter Englander</i>	213
QUANTITATIVE CHEMICAL ANALYSIS OF SINGLE CELLS, <i>D. M. Cannon, N. Winograd and A. G. Ewing</i>	239
THE STRUCTURAL BIOLOGY OF MOLECULAR RECOGNITION BY VANCOMYCIN, <i>Patrick J. Loll and Paul H. Axelsen</i>	265
COMPARATIVE PROTEIN STRUCTURE MODELING OF GENES AND GENOMES, <i>Marc A. Martí-Renom, Ashley Stuart, András Fiser, Roberto Sánchez, Francisco Melo, and Andrej Šali</i>	291
FAST KINETICS AND MECHANISMS IN PROTEIN FOLDING, <i>William A. Eaton, Victor Muñoz, Stephen J. Hagen, Gouri S. Jas, Lisa J. Lapidus, Eric R. Henry, and James Hofrichter</i>	327
ATOMIC FORCE MICROSCOPY IN THE STUDY OF MACROMOLECULAR CRYSTAL GROWTH, <i>A. McPherson, A. J. Malkin, and Yu. G. Kuznetsov</i>	361
A DECADE OF CLC CHLORIDE CHANNELS: STRUCTURE, MECHANISM, AND MANY UNSETTLED QUESTIONS, <i>Merritt Maduke, Christopher Miller, and Joseph A. Mindell</i>	411
DESIGNED SEQUENCE-SPECIFIC MINOR GROOVE LIGANDS, <i>David E. Wemmer</i>	439

PULSED AND PARALLEL-POLARIZATION EPR CHARACTERIZATION OF THE PHOTOSYSTEM II OXYGEN-EVOLVING COMPLEX, <i>R. David Britt, Jeffrey M. Peloquin, and Kristy A. Campbell</i>	463
ELECTROSTATIC MECHANISMS OF DNA DEFORMATION, <i>Loren Dean Williams and L. James Maher III</i>	497
STRESS-INDUCED STRUCTURAL TRANSITIONS IN DNA AND PROTEINS, <i>T. R. Strick, J-F. Allemand, D. Bensimon, and V. Croquette</i>	523
MOLECULAR MECHANISMS CONTROLLING ACTIN FILAMENT DYNAMICS IN NONMUSCLE CELLS, <i>Thomas D. Pollard, Laurent Blanchoin, and R. Dyche Mullins</i>	545
UNNATURAL LIGANDS FOR ENGINEERED PROTEINS: NEW TOOLS FOR CHEMICAL GENETICS, <i>Anthony Bishop, Oleksandr Buzko, Stephanie Heyeck-Dumas, Ilyoung Jung, Brian Kraybill, Yi Liu, Kavita Shah, Scott Ulrich, Laurie Witucki, Feng Yang, Chao Zhang, and Kevan M. Shokat</i>	577
INDEXES	
Subject Index	607
Cumulative Index of Contributing Authors, Volumes 25–29	633