

CONTENTS OF VOLUME 1

NUMBER 1, JULY 1965

M. J. WARING. The Effects of Antimicrobial Agents on Ribonucleic Acid Polymerase	1
PHILIP REYES AND CHARLES HEIDELBERGER. Fluorinated Pyrimidines. XXVI. Mammalian Thymidylate Synthetase: Its Mechanism of Action and Inhibition by Fluorinated Nucleotides	14
DORA B. GOLDSTEIN. Effects of Barbital on Amino Acid Metabolism in <i>Escherichia coli</i>	31
CHOH HAO LI AND GUNNAR SAMUELSSON. Human Pituitary Growth Hormone. XI. Rate of Hydrolysis by Trypsin, Chymotrypsin, and Pepsin; Effect of Trypsin on the Biological Activity	47
NABIL WAKID AND TAG E. MANSOUR. Factors Influencing the Stability of Heart Phosphofructokinase	53
IRWIN B. WILSON AND ROBERTA A. RIO. The Free Energy of Hydrolysis of Diethylphosphoryl Acetylcholinesterase	60
JOHN W. CHAMBERS, RALPH H. GEORG, AND ALLAN D. BASS. Effect of Hydrocortisone and Insulin on Uptake of α -Aminoisobutyric Acid by Isolated Perfused Rat Liver	66
PHILIP NEEDLEMAN AND F. EDMUND HUNTER, JR. The Transformation of Glyceryl Trinitrate and Other Nitrates by Glutathione-Organic Nitrate Reductase	77
CORWIN HANSCH, A. RUTH STEWARD, AND JUNKICHI IWASA. The Correlation of Localization Rates of Benzeneboronic Acids in Brain and Tumor Tissue with Substituent Constants	87
JULIAN DAVIES, LUIGI GORINI, AND BERNARD D. DAVIS. Misreading of RNA Codewords Induced by Aminoglycoside Antibiotics	93
SHORT COMMUNICATIONS	
EDWARD KATZ, ANTHONY B. MAUGER, AND HERBERT WEISSBACH. Biosynthesis of Highly Labeled Actinomycins	107
W. J. POLGLASE. Insensitivity to Valine of Streptomycin-Dependent <i>Escherichia coli</i> K12	109

NUMBER 2, SEPTEMBER 1965

ERNEST F. ZIMMERMAN AND STEPHEN A. GREENBERG. Inhibition of Protein Synthesis by 8-Azaguanine. I. Effects on Polyribosomes in HeLa Cells	113
JAMES J. BURCHALL AND GEORGE H. HITCHINGS. Inhibitor Binding Analysis of Dihydrofolate Reductases from Various Species	126
W. BROCK NEELY. The Use of Molecular Orbital Calculations as an Aid to Correlate the Structure and Activity of Cholinesterase Inhibitors	137
JEAN RENSON, HERBERT WEISSBACH, AND SIDNEY UDENFRIEND. On the Mechanism of Oxidative Cleavage of Aryl-Alkyl Ethers by Liver Microsomes	145
CHESTON M. BERLIN AND ROBERT T. SCHIMKE. Influence of Turnover Rates on the Responses of Enzymes to Cortisone	149
DEZIDER GRÜNBERGER AND H. GEORGE MANDEL. Enhanced Messenger Activity of RNA from 8-Azaguanine-Treated <i>Bacillus cereus</i>	157

R. KUNTZMAN, D. LAWRENCE, AND A. H. CONNEY. Michaelis Constants for the Hydroxylation of Steroid Hormones and Drugs by Rat Liver Microsomes .	163
G. A. ROBISON, R. W. BUTCHER, I. ØYE, H. E. MORGAN, AND E. W. SUTHERLAND. The Effect of Epinephrine on Adenosine-3',5'-Phosphate Levels in the Isolated Perfused Rat Heart	168 ✓
SUNGMAN CHA AND CHUNG-JA MO CHA. Kinetics of Cyclic Enzyme Systems .	178
STEPHEN C. KINSKY, GARY R. GRONAU, AND MORTON M. WEBER. Interaction of Polyene Antibiotics with Subcellular Membrane Systems. I. Mitochondria .	190 ✓

SHORT COMMUNICATION

WACŁAW SZYBALSKI AND V. G. ARNESON. Reductive Activation and Inactivation of Mitomycin as Studied with Human and Bacterial Cell Cultures .	202
--	-----

NUMBER 3, NOVEMBER 1965

CORWIN HANSCH, A. RUTH STEWARD, JUNKICHI IWASA, AND EDNA W. DEUTSCH. The Use of a Hydrophobic Bonding Constant for Structure-Activity Correlations	205
OLEG JARDETZKY AND NORMA G. WADE-JARDETZKY. On the Mechanism of the Binding of Sulfonamides to Bovine Serum Albumin	214
D. B. ELLIS AND G. A. LEPAGE. Some Inhibitory Effects of 9- β -D-Xylofuranosyladenine, an Adenosine Analog, on Nucleotide Metabolism in Ascites Tumor Cells	231
KENNETH C. LEIBMAN. Metabolism of Trichloroethylene in Liver Microsomes. I. Characteristics of the Reaction	239
KEITH H. BYINGTON AND KENNETH C. LEIBMAN. Metabolism of Trichloroethylene in Liver Microsomes. II. Identification of the Reaction Product as Chloral Hydrate	247
J. E. AYLING AND ERNEST KUN. Studies with Specific Enzyme Inhibitors. X. Mechanism of Action of L-(+)- β -Monofluorolactate on Crystalline Heart Muscle Lactate Dehydrogenase	255
LARRY B. HOLDER AND SHERRARD L. HAYES. Diffusion of Sulfonamides in Aqueous Buffers and into Red Cells	266
E. R. FROESCH, H. BÜRGI, P. BALLY, AND A. LABHART. Insulin Inhibition of Spontaneous Adipose Tissue Lipolysis and Effects upon Fructose and Glucose Metabolism	280
I. BERNARD WEINSTEIN, ROBIN CHERNOFF, IRENE FINKELSTEIN, AND ERICH HIRSCHBERG. Miracil D: An Inhibitor of Ribonucleic Acid Synthesis in <i>Bacillus subtilis</i>	297
MELVIN E. KRASS AND FRANK S. LA BELLA. Oxidation of ^{14}C -1 and ^{14}C -6-Glucose by Hormone Synthesizing and Hormone Secreting Portions of Neurohypophyseal Neurons	306

SHORT COMMUNICATION

ALEXANDER GERO. Graphic Differentiation between Competitive and Functional Synergism	312
--	-----

INDEX	314
-----------------	-----