

CONTENTS

Preface. SIDNEY UDENFRIEND AND SYDNEY SPECTOR.....	163
Molecular Biology of the Sympathetic Nervous System. SIDNEY UDENFRIEND.....	165

Increased Synthesis of Catecholamines without Changes in Enzyme Levels

CHAIRMAN: SEYMOUR S. KETY, M.D.

Dopamine and Norepinephrine in Noradrenergic Axons: A Study <i>in Vivo</i> of Their Precursor Product Relationship by Mass Fragmentography and Radiochemistry. E. COSTA, A. R. GREEN, S. H. KOSLOW, H. F. LEFEVRE, A. V. REVUELTA AND C. WANG.....	167
Effects of Drugs and Physiological Factors in the Disposition of Catechol- amines in Blood Vessels. SYDNEY SPECTOR, JAMES TARVER AND BARRY BERKOWITZ.....	191
Modification of Norepinephrine Synthesis in Intact Tissue by Drugs and during Short-term Adrenergic Nerve Stimulation. N. WEINER, G. CLOUTIER, R. BJUR AND R. I. PFEFFER.....	203
Report on the Discussion of the First Session. NORTON H. NEFF.....	223

Induction or Reduction of Catecholamine Enzymes

CHAIRMAN: ALFRED PLETSCHER, M.D., Ph.D.

Regulation of Catecholamine Turnover by Variations of Enzyme Levels. A. PLETSCHER.....	225
Dopamine- β -hydroxylase: Regulation of Its Synthesis and Release from Nerve Terminals. J. AXELROD.....	233
Axons of Sympathetic Neurons: Transport of Enzymes <i>in Vivo</i> and Properties of Axonal Sprouts <i>in Vitro</i> . IRWIN J. KOPIN AND STEPHEN D. SILBERSTEIN.....	245
Comparison between the Effect of Neuronal Activity and Nerve Growth Factor on the Enzymes Involved in the Synthesis of Norepinephrine. HANS THOENEN.....	255
Changes in Tyrosine Hydroxylase and Dopa Decarboxylase Induced by Pharmacological Agents. WALLACE DAIRMAN, JAMES G. CHRISTENSON AND SIDNEY UDENFRIEND.....	269
Report on the Discussion of the Second Session. SOLOMON H. SNYDER....	291

Multiple Forms and Localization of Enzymes

CHAIRMAN: MERTON SANDLER, M.D.

Characterization and Tissue Localization of Catecholamine Synthesizing Enzymes. M. GOLDSTEIN, K. FUXE AND T. HÖKFELT.....	293
--	-----

The Application of Immunological Techniques to the Study of Enzymes Regulating Catecholamine Synthesis and Degradation. BOYD K. HARTMAN AND SIDNEY UDENFRIEND	311
Multiple Forms of Monoamine Oxidase: Functional Significance. M. SANDLER AND M. B. H. YODIM	331
Influence of Specific Nutrients on Catecholamine Synthesis and Metabo- lism. T. L. SOURKES	349
Report on the Discussion of the Third Session. JOSÉ M. MUSACCHIO	361

Hormonal Interactions

CHAIRMAN: ULF S. VON EULER, M.D.

Regulation of Catecholamine Metabolism in the Sympathetic Nervous System. U. S. VON EULER	365
Regulation of Monoamine Metabolism in the Central Nervous System. A. CARLSSON, W. KEHR, M. LINDQVIST, T. MAGNUSSON AND C. V. ATACK	371
The Secretory Cycle in the Adrenal Medulla. NORMAN KIRSENER AND O. H. VIVEROS	385
Role of Adenosine 3',5'-Monophosphate (Cyclic AMP) in Actions of Catecholamines. THEODORE W. RALL	399
Adrenocortical Control of the Biosynthesis of Epinephrine and Proteins in the Adrenal Medulla. R. J. WURTMAN, L. A. POHORECKY AND B. S. BALIGA	411
Report on the Discussion of the Fourth Session. JACQUES DE CHAMPLAIN . .	427
Subject Index	431