

NEUROCHEMICAL RESEARCH

Volume 25, Number 5

May 2000

CONTENTS

Special Issue Dedicated to Dr. Nicolas G. Bazan

Preface

Dedicated to Nicolas G. Bazan, M.D., Ph.D.

Stuart A. Lipton

540

A Tribute

"Neuroscience in the Bayou" —The Birth of a Vision in New Orleans

Rene Anand, Jeffery Erickson, and Jeffery Magee

551

ORIGINAL ARTICLES

D-Amino Acids as Putative Neurotransmitters: Focus on D-Serine

Solomon H. Snyder and Paul M. Kim

553

Regulation of Myo-Inositol Homeostasis in Differentiated Human NT2-N Neurons

James E. Novak, Bernard W. Agranoff, and Stephen K. Fisher

561

Rapid and Transient Learning-Associated Increase in NMDA NR1 Subunit of the Rat Hippocampus

Martín Cammarota, Miguelina Levi de Stein, Gustavo Paratcha, Lia R. M. Bevilaqua, Iván Izquierdo, and Jorge H. Medina

567

Expression of Lysophosphatidic Acid Receptor in Rat Astrocytes: Mitogenic Effect and Expression of Neurotrophic Genes

Sadaharu Tabuchi, Kazuhiko Kume, Makoto Aihara, and Takao Shimizu

573

The Neuronal Nicotinic Acetylcholine Receptor in Some Hereditary Epilepsies

F. J. Barrantes, E. Aztiria, M. B. Rauschemberger, and A. Vasconsuelo

583

Searching for Depolarization-Induced Genes that Modulate Synaptic Plasticity and Neurotrophin-Induced Genes that Mediate Neuronal Differentiation

Harvey R. Herschman, Gregory D. Ferguson, Jonathan D. Feldman, Robin Farias-Eisner, and Linda Vician

591

Neuronal Platelet-Activating Factor Receptor Signal Transduction Involves a Pertussis Toxin-Sensitive G-Protein

Gary D. Clark, Charles F. Zorumski, Robert S. McNeil, Leo T. Happel, Ty Ovella, Shannon McGuire, Gregory J. Bix, and John W. Swann

603

Platelet-Activating Factor (PAF) Antagonists on Cytokine Induction of iNOS and sPLA₂ in Immortalized Astrocytes (DITNC)

Jing-Hung Wang and Grace Y. Sun

613

Differential Role of Hippocampal cAMP-Dependent Protein Kinase in Short- and Long-Term Memory

Monica R. M. Vianna, Luciano A. Izquierdo, Daniela M. Barros, Patricia Ardenghi, Patricia Pereira, Cleverson Rodrigues, Beatriz Moletta, Jorge H. Medina, and Ivan Izquierdo

621

Relationship Between the Ubiquitin-Dependent Pathway and Apoptosis in Different Cells of the Central Nervous System:

Effect of Thyroid Hormones

Laura A. Pasquini, Cecilia B. Marta, Ana M. Adamo, Juana M. Pasquini, and Eduardo F. Soto

627

Ligand Binding to CNS Muscarinic Receptor Is Transiently Modified by Concomitant 3-Mercaptopropionic Acid Administration

P. G. Schneider and G. Rodríguez de Lores Arnaiz

637

Spreading Depression-Induced Cyclooxygenase-2 Expression in the Cortex

Jari Koistinaho and Pak H. Chan

645

Alzheimer's A_B₁₋₄₀ Peptide Modulates Lipid Synthesis in Neuronal Cultures and Intact Rat Fetal Brain Under Normoxic and Oxidative Stress Conditions

Natalia V. Koudinova, Alexei R. Koudinov, and Ephraim Yavin

653

Is Neuronal Injury Caused by Hypoglycemic Coma or the Necrotic or Apoptotic Type?

Yi-Bing Ouyang, Qing-Ping He, Ping-An Li, Shorenna Janelidze, Gui-Xia Wang, and Bo K. Siesjo

661

The Cytoskeletal Components of the Myelin Fraction Are Affected by a Single Intracranial Injection of Apotransferrin in Young Rats

Oscar E. Escobar Cabrera, Guillermo Bongiovanni, Marta Hallak, Eduardo F. Soto, and Juana M. Pasquini

669

Lipid Acetylation Reactions and the Metabolism of Platelet-Activating Factor

R. Roy Baker

677

Retinal Structure and Function in an Animal Model that Replicates the Biochemical Hallmarks of Desmosterolosis

Steven J. Fleister, Michael J. Richards, Chi-yen Miller, Neal S. Peachey, and Richard J. Cenedella

685

Strong Association of Unesterified [³H]Docosahexaenoic Acid and [³H-Docosahexaenoyl]Phosphatidate to Rhodopsin During In Vivo Labeling of Frog Retinal Rod Outer Segments

Elena B. Rodriguez de Turco, Fannie R. Jackson, Nilda Parkins, and William C. Gordon

695

Properties and Regulation of Microsomal PAF-Synthesizing Enzymes in Rat Brain Cortex

E. Francescangeli, A. Boila, and G. Goracci

705

Uptake and Incorporation of Docosahexaenoic Acid (DHA) into Neuronal Cell Body and Neurite/Nerve Growth Cone Lipids:

Evidence of Compartmental DHA Metabolism in Nerve Growth Factor-Differentiated PC12 Cells

715

Rex E. Martin, J. Quyen Wickham, Ae-Son Om, Jeff Sanders, and Natalie Ceballos

GM1 Synthase Depends on N-Glycosylation for Enzyme Activity and Trafficking to the Golgi Complex

Jose A. Martina, Jose L. Daniotti, and Hugo J. F. Maccioni

725

Identification of Mu-Class Clutathione Transferases M2-2 and M3-3 as Cytosolic Prostaglandin E Synthases in the Human Brain

Carsten T. Beuckmann, Ko Fujimori, Yoshihiro Urade, and Osamu Hayaishi

733

Regulation of Phospholipase C Activity by Calcium Ions and Guanine Nucleotide in the Normoxic Cat Carotid Body

Robert Piotr Strosznajder and Kieczyslaw Pokorski

739

Phospholipases A2 in Ischemic and Toxic Brain Injury

Adam Sapirstein and Joseph V. Bonventre

745