# Tap into the broadest international coverage of the most rapidly growing branch of biological science

## The Journal of Neuroscience the Official Journal of the Society for Neuroscience

You need **The Journal of Neuroscience** NOW, because there's no better way to keep up with crucial advances that affect YOUR work.

You need its interdisciplinary coverage, its scouting of findings in all areas of neuroscience. You'll appreciate the way it mirrors the objectives of the North American Society for Neuroscience, *as well as* the Societies in Europe and Japan. And the way it keeps you absolutely up-to-date, no matter where significant breakthroughs occur.

The Journal of Neuroscience will publish roughly 2,400 pages in its first year. EVERY MONTH you'll receive significant, comprehensive coverage of this fast-moving specialty. You're going to be impressed with the Journal's presentation, and with its consistently valuable contribution to your work.

There will be five umbrellas under which articles are published: molecular neuroscience, cellular neuroscience, developmental neuroscience, neural systems, and behavioral neuroscience. You'll also find useful, *intelligible* abstracts—no extraneous details and no jargon. **The Journal of Neuroscience** will be the leader in quality as well as quantity.

The **Journal** will be edited by W. Maxwell Cowan, of The Salk Institute for Biological Studies, with the distinguished editorial board listed below. The Advisory Board will include Julius Axelrod, Herbert H. Jasper, Seymour S. Kety, Vernon B. Mouncastle, Walle J. H. Nauta, and Pedro N. Rudomin.

#### Section Editors

Molecular Neuroscience Solomon H. Snyder, Johns Hopkins School of Medicine

Cellular Neuroscience Michael V. Bennett, Albert Einstein School of Medicine

Developmental Neuroscience Gerald D. Fischbach, Harvard Medical School Neural Systems

Edward V. Evarts, National Institutes of Mental Health

R. W. Guillery, University of Chicago Medical School

Behavioral Neuroscience Eric R. Kandel, Columbia College of Physicians and Surgeons

Encourage your library to subscribe, and start using this first-rate journal in January! The institutional fee for a year's subscription is \$230.00. Once your department or institution subscribes, YOU can subscribe for the discount individual rate of \$50.00.

SUBSCRIBE TO THE JOURNAL OF NEUROSCIENCE NOW . . . And gain access to a source of broad, new information!

SEND IN THIS COUPON TODAY.

|             | ne up for a year's sut<br>anuary, 1981.                     | oscription to the | e Journal of Neuro                     | science, |            |
|-------------|---|-------------------|--|----------|------------|
| Discount    | nal: \$230.00.<br>Individual: \$50.00 (W<br>outside the US) | ith Institution   | al subscription).                      |          |            |
| PAYMENT     | $\Box$ Check enclosed                                       | 🗆 Bill me         | □ MasterCard                           | 🗆 VISA   |            |
| Card Number |   |                   |  |          | Expiration |
| Name        |   |                   | ······································ |          |            |
| Address     |   |                   |  |          |            |
| City        |   | State             |  |          | Zip        |
|             | REE BY PHONE:<br>672 between 9 am                           |                   |  |          | 28-4221.   |
|             | ( N   | Villiams          | s & Wilkin                             | S        |            |

# KEEPING CURRENT ... is it important to you?

Three journals that guarantee you'll be told what's happening NOW in pharmacology, physiology, and biochemistry.

#### PHARMACOLOGICAL REVIEWS

An Official Publication of the American Society for Pharmacology and Experimental Therapeutics, Inc.

Editor: Paul L. Munson, Ph.D., School of Medicine, University of North Carolina

**Pharmacological Reviews** is a showcase journal for ideas that would otherwise be buried in the mass of pharmacological literature. Important review papers on the current status of a given topic are allotted plenty of space (from 10 to 40 pages) to exhaustively cover that topic. A fine balance is achieved in these articles, which are written in a clear, simple and concise fashion so as to be intelligible to non-specialists, yet are precise and detailed enough to be of great interest to experts in the field.

At various times, *Pharmacological Reviews* has addressed such subjects as biochemical and cellular pharmacology, drug metabolism and disposition, renal pharmacology, neuropharmacology, behavioral pharmacology, clinical pharmacology, and toxicology. Designed specifically as a medium through which those interested in these topics can communicate directly, *Pharmacological Reviews* serves the entire pharmacological community and is vital reading for physiologists, pharmacologists, and biological chemists.

#### THE JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

An Official Publication of the American Society for Pharmacology and Experimental Therapeutics, Inc.

Editor: Eva King Killam, Ph.D., School of Medicine, University of California at Davis

Founded by John J. Abel in 1909, this is one of the oldest and most prestigious journals in scientific research. Publishing original articles on all aspects of the interactions of chemical and biological systems by some of the best known authors in the field, *The Journal of Pharmacology and Experimental Therapeutics* is practically a necessity for the specialist in either research or applied physiology.

You'll find full coverage of the biochemical and cellular aspects of pharmacology; renal, pulmonary, gastrointestinal, and cardiovascular pharmacology; drug metabolism and disposition, analgesia and drug abuse, and toxicology; autonomic pharmacology; behavioral effects; and, finally, chemotherapy and immunopharmacology. Each issue of this monthly periodical averages over 200 pages and presents the very best in research for the physiologist and pharmacologist.

#### DRUG METABOLISM AND DISPOSITION: the biological fate of chemicals

An Official Publication of the American Society for Pharmacology and Experimental Therapeutics, Inc.

Editor: Kenneth C. Leibman, Ph.D., University of Florida Medical School

The clinical, academic, or research professional will find Drug Metabolism and Disposition an essential medium for the rapid communication of research findings in this field. The journal reports on the fate of drugs, toxicants, and environmental and industrial chemicals in vivo and in vitro. Specific areas of interest include pathways and mechanisms of absorption, distribution, metabolism, and excretion of foreign compounds; relationships between chemical and physical properties of compounds and their metabolism and disposition; biological and pharmacological control of these variables, and methodology for their study. Research reports and documentation, comments on current literature, and letters to the editor, previews, and announcements of interest to you round out this journal.

Please enter my new subscription to the journals checked below. (I understand that payment must be received before my subscription can begin.)

Pharmacological Reviews (quarterly)

- Personal: \$20.00/yr.
- □ Institutional: \$25.00/yr.
- □ In-training: \$14.00/yr.
- □ Foreign: add \$5.00/yr.

**The Journal of Pharmacology and Experimental Therapeutics** (monthly) Personal: \$100.00/yr.

- □ Institutional: \$120.00/yr
- □ Foreign: add \$20.00/yr.

**Drug Metabolism and Disposition: the biological fate of chemicals** (bimonthly) Personal: \$40.00/yr.

- □ Institutional: \$58.00/yr.
- □ Foreign: add \$5.00/yr.

(In-training rates apply to residents, fellows, interns, and students. When requesting this rate, which is limited to three years, please give training status and name of institution.)

Members of the American Society for Pharmacology and Experimental Therapeutics should order subscriptions to the official society journals through the American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20014

| name             |           |          |  |  |  |
|------------------|-----------|----------|--|--|--|
| address          |           |          |  |  |  |
| city             | state     | zip code |  |  |  |
| □ check enclosed | 🗆 bill me | -        |  |  |  |

(Check one) UISA Daster Charge

card #

expiration date

#### TOLL-FREE TELEPHONE ORDERING (9 am to 4 pm)

Now, subscribing to any of these journals is as easy as making a phone call. To order WITH OR WITHOUT CHARGE CARD, call 1-800-638-0672. Maryland residents CALL COLLECT, 528-4221.

### Williams & Wilkins

Dept. 310, P.O. Box 1496 Baltimore, Maryland 21203



PTPTSDRMFIL

# **Archives of Pharmacology**

## Volume 314 Number 3 November (II) 1980

### Contents

Y. Nakata, Y. Kusaka, H. Yajima,
K. Kitagawa, T. Segawa: Further
Characterization of the Binding of Substance P to a Fraction from Rabbit Brain Enriched in Synaptic Membranes 211

**N. S. Buckholtz**: Brain Serotonin and 5-Hydroxyindoleacetic Acid Concentrations and Serotonin Synthesis Following Tetrahydro-β-Carboline Administration in Mice **215** 

**M. Göthert**: Serotonin-Receptor-Mediated Modulation of Ca<sup>2+</sup>-Dependent 5-Hydroxytryptamine Release from Neurones of the Rat Brain Cortex **223** 

**H. Bönisch**: The Rate Constants for the Efflux of Deaminated Metabolites of <sup>3</sup>H-Dopamine from the Perfused Rat Heart **231** 

A. Rawlow, H. Fleig, K. Kurahashi, U. Trendelenburg: The Neuronal and Extraneuronal Uptake and Deamination of  ${}^{3}H$ -(-)-Phenylephrine in the Perfused Rat Heart **237** 

**A. T. Sullivan, G. M. Drew**: Pharmacological Characterisation of Pre- and Postsynaptic α-Adrenoceptors in Dog Saphenous Vein **249**  H. Kilbinger, I. Wessler: Pre- and Postsynaptic Effects of Muscarinic Agonists in the Guinea-Pig Ileum 259

**M. L. Roberts:** A Comparison of the Actions of Acetylcholine and Bradykinin on the Guinea Pig Ileum **267** 

**C. R. Morton, L. A. Chahl**: Pharmacology of the Neurogenic Oedema Response to Electrical Stimulation of the Saphenous Nerve in the Rat **271** 

**C. R. Morton, L. A. Chahl**: Indirect Evidence for the Importance of Axonal Transport in Maintenance of Stores of the Mediator of Neurogenic Oedema **277** 

**G. Raberger, T. Benke, O. Kraupp**: The Effects of Adenosine-5'-Ethylcarboxamide on Liver Blood Flow and Hepatic Glucose, Lactate and Pyruvate Balances in Dogs **281** 

Indexed in Current Contents



Springer International