

Vol.4

**Proceedings of the Fifth International Congress
on Pharmacology, San Francisco 1972**

Pharmacology and the Future of Man

Brain, Nerves, and Synapses



S.Karger · Basel · München · Paris · London · New York · Sydney

Proceedings of the Fifth International Congress on Pharmacology
San Francisco, Calif., July 23–28, 1972

Brain, Nerves, and Synapses

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Editors' Preface

The editors cooperated with the publisher, the organizers of the Congress, and the authors to publish these lectures, debates, and symposia as early as possible. They considered it their job to see that the papers are published in understandable form. They were available to authors for consultation during the Congress, but had only a few weeks to correspond with authors after the Congress. The editorial process consisted in correcting obvious errors in the manuscripts, straightening out difficult passages with the help of the authors (always striving not to alter the author's meaning), and seeing that the proofs were correct, so that the final result, presented here, might be relatively free of errors, true to the intent of its authors, and clear to the readers.

Congress Data

The Fifth International Congress on Pharmacology was held in San Francisco July 23–28, 1972. It was sponsored by the International Union of Pharmacology (BÖRJE UVNÄS, Sweden, President). The hosts for the Congress were the American Society for Pharmacology and Experimental Therapeutics (JOHN J. BURNS, President) and The University of California (CHARLES J. HITCH, President). The President of the Congress was ROBERT M. FEATHERSTONE, Chairman of the Department of Pharmacology of the University of California School of Medicine at San Francisco. The Program Chairman was EDWARD J. WALASZEK, Chairman of the Department of Pharmacology at the University of Kansas Medical School in Kansas City. The Finance Chairman was KARL H. BEYER, Jr., Senior Vice President of the Merck Sharpe and Dohme Research Laboratories, West Point, Pennsylvania. The Congress was capably arranged by the Office of Scientific Meetings of the Federation of American Societies of Experimental Biology under the direction of Mrs. HELENA LEMP.

The Congress was attended by more than 4200 persons, two thirds of whom are from the United States of America. One third of the registrants came to the Congress from 54 other countries.

Participants presented 1403 papers on their research in pharmacology at 140 sessions. Abstracts of these papers were distributed to registrants at the time of the Congress.

In addition, an extensive program of invited papers was arranged. There were 16 lectures, 5 all-day symposia, 10 half-day symposia, and 5 discussions of problems in pharmacology. Abstracts of these papers were distributed to registrants at the time of the Congress. The manuscripts of these papers have been gathered under 5 descriptive headings and are published in these 5 volumes under the following titles:

- Volume 1: Drug Abuse and Contraception
- Volume 2: Toxicological Problems
- Volume 3: Problems of Therapy
- Volume 4: Brain, Nerves, and Synapses
- Volume 5: Cellular Mechanisms

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