

INTRODUCTION

ARNOLD D. WELCH—EIGHTY YEARS

This volume represents the proceedings of the Fourth International Biochemical Pharmacology Symposium on "NMR Methods for Elucidating Macromolecule-Ligand Interactions: An Approach to Drug Design." Both the symposium and this volume are dedicated to Arnold D. Welch on the advent of his eightieth year. Arnold, with Peter Alexander and the late Sir Rudolph Peters, Sir Alexander Haddow, and Zenon M. Bacq, founded *Biochemical Pharmacology* in 1958 as a journal dedicated to studies on the mechanism of action of synthetic and biological agents. Arnold served with great distinction as the Regional Editor for the American Continent for 6 years, nursing the journal from its infancy to its current status 31 years later as an important periodical in pharmacology. He continued his association with the journal as a Vice Chairman of the International Board of Editors and in 1983 became Chairman of the Editorial Board.

His early vision of the importance of biochemical and molecular approaches to the future of pharmacology resulted in the creation of major programs in these areas under his leadership in the worlds of academia (as Director of the Department of Pharmacology of the School of Medicine at Western Reserve University and as Eugene Higgins Professor of Pharmacology and Chairman of the Department of Pharmacology at the Yale University School of Medicine), industry (as Director of Research at Sharp & Dohme and as President of the Squibb Institute for Medical Research), a free-standing cancer research institute (as Chairman of the Division

of Biochemical and Clinical Pharmacology at the St. Jude Children's Research Hospital) and government (as Cancer Expert at the National Cancer Institute).

Arnold's personal research epitomized the spirit of *Biochemical Pharmacology*, breaking ground in the use of pharmacological and biochemical principles to develop drugs. His research interests were exceedingly broad, including work on catecholamines, pernicious anemia and vitamin B₁₂ and folic acid, the latter leading to major investigations on the action of methotrexate and other analogs of folic acid, and the design of analogs of pyrimidine nucleosides, research which included the discovery of compounds such as 6-azauridine and 5-iodo-2'-deoxyuridine and the delineation of the mode of action of these agents, as well as studies on 3-deazauridine and 5-azacytidine.

He has received many awards for his scientific accomplishments, including the Torald Sollmann Award of the American Society for Pharmacology and Therapeutics in 1966 and the J. Heyrovsky Gold Medal for Science from the Czechoslovak Academy of Sciences in 1989.

An exceptional judge of scientific talent, a charismatic leader and administrator, a gifted scientist, a dedicated teacher, a great editor and a wonderfully loyal friend. These are descriptors of Arnold D. Welch, pioneer in biochemical pharmacology.

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