

INTRODUCTION



This special issue of *Biochemical Pharmacology* has been compiled and dedicated to Arnold D. Welch in his seventieth year. It is particularly appropriate to honor Arnold with a special issue, both because he was one of the early founders of the journal and because he has contributed so remarkably to the development of the scientific field which it represents. A brief review from each person who has benefited from an association with Arnold Welch would fill more than one journal issue; thus, the present issue consists of contributions that are a mere sampling of the work of some of the closest of his former students and present friends and colleagues.

Arnold's years as Director of the Department of Pharmacology of the School of Medicine at Western Reserve University went far toward establishing him as a leader in comparative biochemical pharmacology; however, it was the period he spent as the Eugene Higgins Professor of Pharmacology and Chairman of the Department at the Yale University School of Medicine during which the impact and the ever-widening circle of his influence and expertise in the fields of

biochemistry and pharmacology were felt. Arnold was one of the pioneers in the use of pharmacological and biochemical principles to develop drugs, and the department which he created at Yale University was an expression of this genius. His research interests were broad in scope, including work on catecholamines, pernicious anemia and vitamins B₁₂ and folic acid; the latter investigations led to studies on the action of methotrexate and related analogs of folic acid. Major works on the development of analogs of pyrimidine nucleosides have included the discovery of compounds such as 6-azauridine and 5-iodo-2'-deoxyuridine.

For his scientific accomplishments Arnold was honored in 1966 with the Torald Sollmann Award by the American Society for Pharmacology and Experimental Therapeutics. Following fourteen years at Yale University, he assumed the directorship and later the presidency of the Squibb Institute for Medical Research, where, under his guiding hand, research and development were expanded and smoothly integrated with commercial development and marketing.

Arnold had under his aegis, at one time or another, about 125 people at Yale University and about 1,000 as President of the Squibb Institute. One of the most important legacies he has left to each institution is the inspiration that he has provided his contemporaries. Now, in his seventieth year, he is building still another research program as the Chairman of the Division of Biochemical and Clinical Pharmacology at St. Jude Children's Research Hospital. In this capacity, he has reinitiated his long-standing interest in cancer chemotherapy.

The volume and complexity of scientific research have grown significantly during the span of Arnold's career; fortunately, whenever he has moved on to new fields of endeavor, Arnold has left behind him major scientific advances and former students capable of continuing in his footsteps. The manuscripts presented in this issue of *Biochemical Pharmacology* come from a small group of his friends, colleagues and former students who represent all of those who are happy to acknowledge their indebtedness.

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