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Introduction

This volume contains the papers presented at the Symposium on Gas Exchange Function of Normal and Diseased Lungs that was held in Gottingen, July 8-11, 1980. The meeting was a Satellite Symposium of the XXVIIIth International Congress of Physiological Sciences, which took place in Budapest (Hungary), July 13-19, 1980.

The topics discussed in five sessions were: (1) ventilation distribution and dead space; (2) intrapulmonary gas mixing; (3) blood/gas equilibration; (4) gas exchange in inhomogeneous lungs; (5) adjustment to environmental conditions and exercise. Several aspects were considered in each topic, e.g. methodology, theoretical and experimental approaches, pathophysiology.

The symposium was attended by 94 scientists whose names and professional affiliations are given in the List of Participants. In composing the program we have attempted to blend review lectures with original papers on recent scientific achievements. Time for the meeting being limited, the desire of the great majority of participants to present their material could only be satisfied by offering a special format of poster presentation, whereby an author was given 5 minutes during the pertinent session to introduce his poster.

These proceedings contain manuscripts of all presentations (reviews, free oral communications, poster presentations). Space being limited in
this volume, discussions could not be included with the papers. This is particularly regrettable as the formal discussion during the sessions, as well as the many dialogs between the sessions, constituted an essential part of the meeting. In this sense, all participants of the meeting can be regarded as active, even if they were not listed in the program with a formal communication.

Introduction XVI

Our colleague and dear friend Daniel Bargeton (Paris) was expected to participate in this symposium. This was, however, made impossible as he died on the 25th of June. His death was received with regret by the attendants, most of which had known him as a scientist. The manuscript of his contribution is included in this volume.

It is our distinct pleasure to acknowledge the generous financial support provided by the Deutsche Forschungsgemeinschaft (German Research Council), Bad Godesberg, and by the Max-Planck-Gesellschaft. Furthermore, we would like to thank Mrs. Elfriede Hansen and Mrs. Irmgard Barteczko, secretaries of the Department of Physiology, for their unwavering and excellent help at all stages of the planning of the meeting and of the preparation of the publication. Thanks are also due to all members of the Department of Physiology for their cooperation.

We are grateful to Dr. H. Herzog, editor of Progress in Respiration Research, for the opportunity to publish the proceedings as a volume in this series. Particular thanks are due to Mrs. Denise Greder and Mr. R. Steinebrunner, Karger Publishing Company, for their cooperation.

Göttingen, August 1980 Johannes Piiper
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