Introduction

Every issue of CHEST contains a mixture of articles representing the various disciplines within cardiopulmonary medicine and cardiothoracic surgery. Such a “mix” is entirely appropriate for the heterogeneous international readership of this periodical. The Editorial Board believes it is important to offer our readers occasional in-depth presentations of single subjects. These comprise our supplementary issues and it is our hope that such special publications serve as a vital reference source for investigators, teachers and clinicians. We believe that the reports in this issue constitute a distinguished addition to the series of CHEST supplements published in recent years. The editors are grateful to Dr. Ruy Lourenço for his skillful guidance in his role as guest editor of this issue on “Clinical Methods for the Study of Regulation of Breathing.”

This special issue is supported by an educational grant from the Parker B. Francis Foundation. The officers and members of the American College of Chest Physicians are grateful for this assistance. The Parker B. Francis Foundation was established in 1951 by one of the founders of the Puritan-Bennett Corporation. The Foundation has served the medical profession for more than two decades with particular emphasis on the care and treatment of respiratory problems, both in the United States and abroad.

Alfred Soffer, M.D.
Editor-in-Chief, CHEST

Clinical Methods for The Study of Regulation of Breathing

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The articles which follow were presented in part at the Symposium on Clinical Methods for the Study of Regulation of Ventilation, which took place in Lake Bluff, Illinois, May 1-3, 1975. The symposium was organized by the Scientific Assembly on Respiratory Structure and Function of the American Thoracic Society, with financial support from both the American Thoracic Society and the Chicago Lung Association. The fact that the proceedings are published in CHEST, through the generous support of the American College of Chest Physicians, attests to the productive relationship which exists between the chief organizations which lead the fight against chest diseases in the U.S.

The symposium dealt with the description, standardization, and interpretation of methods for assessing regulation of ventilation. Special consideration was given to tests which may be helpful for clinical assessment, epidemiologic studies, or clinical research. Animal studies were mentioned only in the context of providing information relevant to the understanding of the regulation of ventilation in humans.

The articles may be grouped in the following way: measurements of respiratory chemosensitivity to carbon dioxide and oxygen, analyses of the ventilatory re-