
RADIONUCLIDES IN NEPHROLOGY

EDITED BY

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RADIONUCLIDES IN NEPHROLOGY

Proceedings of an International Symposium

edited by

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Preface

On January 25-27, 1971, a three-day symposium on radionuclides in nephrology was held in New York City under the sponsorship of the International Society of Nephrology and the Society of Nuclear Medicine. The meeting was attended by 100 invited participants from 17 different countries. It was chaired by Drs. M. Donald Blaufox and J.-L. Funck-Brentano with a scientific committee which included Drs. L. M.-J. Timmermans (Belgium), C. Raynaud (France), K. zum Winkel (Germany), A. M. Joeke (Great Britain), C. Bianchi (Italy), B. Truniger (Switzerland), and S. L. Kountz (U. S. A.).

The purpose of this symposium was to bring together a group of people with a common interest in the application of radionuclides to nephrology. The wide diversity of disciplines which these investigators represent is clear from inspection of the titles of the papers presented at the meeting that are contained in this volume. Internists, radiologists, urologists, physiologists, and others representing the basic and clinical sciences were brought together for three days of intensive discussion and exchange of ideas. The topics covered ranged through renal blood flow, radioimmunoassay, metabolism, body composition, autoradiography, clearances, imaging procedures, and radiorenography.

The symposium was especially fruitful in making possible the exposure to each other of people of varied disciplines at all levels of application. It was particularly clear that radionuclides have achieved increasing use in nephrology and merit consideration as a special discipline which warrants periodic symposia of this type. The meeting was concluded with the appointment of Dr. Karl zum Winkel as the chairman of the next symposium, which will be held in Germany some time in 1974.

These proceedings of the symposium are being published to make available the information presented for those individuals who could not attend. The chapters contained herein encompass work at all stages of development, from work in progress to reviews of past developments.

It is hoped that these proceedings will serve as a reference and source of ideas for anyone who is interested in the applications of radionuclides to the study of the kidney.

M. Donald Blaufox, M.D., Ph.D.
J.-L. Funck-Brentano, M.D.

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PART I
RENAL BLOOD FLOW

This section is the first of seven, each of which represents a separate area of application of radionuclides in nephrology. The chapters in this part contain the information presented during the first day of the symposium and are concerned with recent developments in experimental research and clinical application of renal blood flow studies. A variety of descriptions of new methodology as well as critical evaluation of these methods are made available to the reader. No immediate clinical benefit has been derived from the methods currently available for measurement of renal blood flow and its distribution, but a great deal of important physiologic data have already been accumulated. Although concern continues to be expressed about the accuracy of the methods, mounting confirmation of many observations of physiologic redistribution of renal blood flow appears to substantiate its role as a mechanism in renal regulation of sodium excretion.

