

# MCV/Q

MEDICAL COLLEGE OF VIRGINIA QUARTERLY

*A Scientific Publication of the School of Medicine*

1968 • VOLUME FOUR • NUMBER THREE

## CONTENTS

The MEDICAL COLLEGE OF VIRGINIA QUARTERLY is designed primarily for the postgraduate education of physicians. The QUARTERLY will publish results of original research in basic and clinical sciences, and report on seminars and symposiums held at the College. Contributions from outside the MCV faculty are invited.

Manuscripts, submitted in duplicate, should be prepared according to recommendations in the *Style Manual for Biological Journals*, 2nd Edit., published in 1964 by the American Institute of Biological Sciences, 2000 P Street, N.W., Washington, D. C. 20036.

Subscription rates in the USA and Canada: 1 year, \$4; 2 years, \$7; 3 years, \$9. All other countries: 1 year, \$5; 2 years, \$8; 3 years, \$10. Interns, residents, and students: 1 year, \$2.

Correspondence: MEDICAL COLLEGE OF VIRGINIA QUARTERLY, Medical College of Virginia, Richmond, Virginia 23219. Phone: 703/770-4027.

### *Editorial Advisory Board*

Ian Bush  
Charles M. Caravati  
Fairfield Goodale, Jr.  
Ernst G. Huf  
June L. Huntley  
Hunter H. McGuire, Jr.  
Kinloch Nelson  
Arnold M. Salzberg  
Frederick J. Spencer

### *Editorial Consultants*

Larry F. Cavazos, *professor of radiology, Tufts University*  
Richard G. Lester, *professor of radiology, Duke University*  
Malcolm E. Turner, Jr., *visiting professor of biometry, University of Kansas*

### *EDITOR*

Sami I. Said

*Editorial Assistant, Elizabeth S. Scott*  
*Designer, Raymond A. Geary*

Mechanism of Energy Transformations in Biological Membranes DAVID E. GREEN, Madison, Wisconsin	96
Histamine and a Possible Unity of Autonomous Microcirculatory Dilator Responses RICHARD W. SCHAYER, Orangeburg, New York	101
The Potability of Sea Water A. V. WOLF, Chicago, Illinois	107
The Use of a Computer in the Diagnosis of Intracranial Tumours G. H. DU BOULAY, London E.C.1, England	114
Potential Applications of Lasers in Ophthalmology WALTER J. GEERAETS, Richmond, Virginia	117
Mechanisms Controlling the Peripheral Circulation of the Lung, with Some Clinical Correlations VERNON E. KRAHL, Baltimore, Maryland	121
5-Fluorouracil, A Tool in the Treatment of Skin Cancer and Keratoses REUVEN K. SNYDERMAN, New York, New York	133
Relationship Between Fertility and Elevated Cholesterol Levels in Rats GRIMALDO CARVALHO, Richmond, Virginia	135
Book Review ANN M. FLOWERS, Richmond, Virginia	141
Contributors to this Issue	142

COVER: *The mitochondrion and its system of membranes (design by Raymond A. Geary). See page 97.*

© 1969 by Medical College of Virginia, Health Sciences Division of Virginia Commonwealth University