

THE JOURNAL
OF
PHARMACOLOGY
AND
EXPERIMENTAL THERAPEUTICS

EDITED BY

E. K. MARSHALL, JR.
Johns Hopkins University

AND

J. A. GUNN
University of Oxford

IN ASSOCIATION WITH

H. G. BARBOUR,
Yale University
J. H. BURN,
Pharmacological Laboratory, Pharmaceutica
Society of Great Britain, London
J. T. CASH,
University of Aberdeen
A. J. CLARK,
University of Edinburgh
H. H. DALE,
London
W. J. DILLING,
University of Liverpool
C. W. EDMUNDS,
University of Michigan
S. FLEXNER,
Rockefeller Institute for Medical Research
P. J. HANZLIK,
Leland Stanford Junior University
R. A. HATCHER,
Cornell University Medical College
V. E. HENDERSON,
University of Toronto
A. D. HIRSCHFELDER,
University of Minnesota
SIR FREDERICK G. HOPKINS,
University of Cambridge

REID HUNT,
Harvard University
P. D. LAMSON,
Vanderbilt University
W. DEB. MACNIDER,
University of North Carolina
C. R. MARSHALL,
University of Aberdeen
E. MELLANBY,
Sheffield University
F. RANSOM,
London
A. N. RICHARDS,
University of Pennsylvania
TORALD SOLLMANN,
Western Reserve University
R. STOCKMAN,
University of Glasgow
CARL VOEGTLIN,
U. S. Public Health and Marine Hospital
Service
G. B. WALLACE,
University and Bellevue Hospital Medical
College

VOLUME XLIX
1933

BALTIMORE, MARYLAND

This One



5UNC-9EU-ATCY