

MOLECULAR ANTHROPOLOGY

Genes and Proteins in the
Evolutionary Ascent of the Primates

ADVANCES IN PRIMATOLOGY

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MOLECULAR ANTHROPOLOGY: Genes and Proteins

in the Evolutionary Ascent of the Primates

Edited by Morris Goodman and Richard E. Tashian

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Genes and Proteins in the
Evolutionary Ascent of the Primates

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PLENUM PRESS • NEW YORK AND LONDON

Library of Congress Cataloging in Publication Data

Main Entry under title:

Molecular anthropology.

(Advances in primatology)

"Based in part on the papers presented at the Symposium on Progress in Molecular Anthropology held at Burg Wartenstein, Austria, July 25-August 1, 1975."

Includes bibliographies and index.

1. Primates—Evolution—Congresses. 2. Chemical evolution—Congresses. I. Goodman, Morris, 1925- II. Tashian, Richard E. III. Series.

QL737.P9M59

599'.8

76-45445

ISBN-13: 978-1-4615-8785-9

e-ISBN-13: 978-1-4615-8783-5

DOI: 10.1007/978-1-4615-8783-5

Based in part on the papers presented at the
Symposium on Progress in Molecular Anthropology
held at Burg Wartenstein, Austria,
July 25-August 1, 1975

©1976 Plenum Press, New York
Softcover reprint of the hardcover 1st edition 1976
A Division of Plenum Publishing Corporation
227 West 17th Street, New York, N.Y. 10011

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Preface

In 1962 at the Burg Wartenstein Symposium on "Classification and Human Evolution," Emile Zuckerkandl used the term "molecular anthropology" to characterize the study of primate phylogeny and human evolution through the genetic information contained in proteins and polynucleotides. Since that time, our knowledge of molecular evolution in primates and other organisms has grown considerably. The present volume examines this knowledge especially as it relates to the phyletic position of *Homo sapiens* in the order Primates and to the trends which shaped the direction of human evolution. Participants from the disciplines of protein and nucleotide chemistry, genetics, statistics, paleontology, and physical anthropology held cross-disciplinary discussions and argued some of the major issues of molecular anthropology and the data upon which these arguments rest. Chief among these were the molecular clock controversy in hominoid evolution; the molecular evidence on phylogenetic relationships among primates; the evolution of gene expression regulation in primates; the relationship of fossil and molecular data in the Anthropeoidea and other primates; the interpretation of the adaptive significance of evolutionary changes; and, finally, the impact on mankind of studies in molecular anthropology.

Most of the papers in this volume were presented in a preliminary form at Symposium No. 65 on "Progress in Molecular Anthropology" held at Burg Wartenstein, Austria, from July 25 to August 1, 1975. These papers were subsequently revised and some additional papers related to the theme of the symposium were also contributed to this volume.

On behalf of all participants at the symposium we would like to thank the Wenner-Gren Foundation for Anthropological Research for sponsoring our meeting. In particular, we are indebted to Lita Osmundsen, Director of Research of the Foundation, and to her staff at Burg Wartenstein for providing a truly stimulating and unique situation in which scientific discourse can take place.

M.G.
R.T.

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