

PREFACE

It is an intrepid act, if not a presumptuous one, to attempt to identify a series of "benchmark" contributions in a discipline of as many parts as human genetics. A selection solely of clinical contributions will not satisfy the views of the nonclinician; similarly, a preponderance of papers of a biochemical nature will disappoint the nonbiochemist. One must accept, therefore, that no selection will achieve universal approbation. We have, as a consequence, adopted a generalist position and chosen a series of papers that addresses three broad areas: the formal genetics of man; genes, chromosomes, and disease; and man's genetic variability. Within each, the choice of a particular paper reflects our perception of its importance, its accessibility, and the educational value it may have aside from the specific scientific contribution it makes.

These principles are, of course, more readily stated than rigorously adhered to. We have, for example, incorporated only one publication in a language other than English. Parochialism was certainly not our intent; rather we merely acknowledge the lessened emphasis on foreign languages in the scientific curricula of American universities and the loss in the sense of immediacy that accompanies most translations. This approach has led to omissions for which we apologize. Wilhelm Weinberg, for example, is not represented among the authors of any of these selections, nor are those members of the Maxim Gorky Institute who published primarily in Russian. We have attempted to acknowledge our indebtedness to our colleagues abroad in the prefatory remarks that accompany each section. Hopefully the more dedicated reader will seek out these publications and immerse herself or himself, or at least attempt to, in the intellectual milieu that prompted these creative efforts.

Historians of science often allude to *zeitgeist* in the characterization of the import of a particular paper or scientific event. Often such characterization is, we feel, pejorative, but most sciences, including human genetics, have their fads or at least transitory emphases. We have tried both in our selection of papers and in our remarks to distinguish between those creative acts with no apparent, immediate antecedents and those, which like the specification of the genetic code, may have been creative from the laboratory viewpoint, but represent the culmination of an intellectual ferment so pervasive as to dominate the activities of numerous

laboratories. We are reluctant to place the latter contributions, despite the elegance of the laboratory technique, on a par with the former. We grant our views to be moot, but surely a contribution of the former kind does not lie outside the prospects of any gifted scientist whereas the latter too frequently depends on accoutrements rather than insight.

We are indebted to many friends and colleagues who have responded unselfishly to our requests for opinions on the merits of our selections and to our solicitations for alternative suggestions. A similar sense of unselfishness tempts us to share with them responsibility for the bad choices as well as the good, but patently this would be unfair. They have contributed importantly to the recognition of the latter, but the former can only represent our lack of insight, appreciation, or sensitiveness of the cross-currents that have characterized, and still do, our discipline. We especially wish to acknowledge our colleagues here at the Center, Drs. Masatoshi Nei, Wen-Hsiung Li, Kenneth Weiss, and Robert Ferrell, and in addition, Drs. Margery Shaw and T. Edward Reed who have tried to protect us from our own exuberances. Once imbued with the spirit of John—*Apud verbo erat*—it is difficult to stay one's visions of the order of things. But "*Cria cuervos y te sacaran los ojos.*" * Finally, to Ms. Sara Barton and Jeryl Silverman without whose patience and forbearance and gentle insistence this volume would never have been assembled—many, many thanks.

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*"Raise crows and they will pick out your eyes" [an old Spanish adage].