sumably also thermodynamically the most stable one. However, the facts that widely different primary structures fold up to similar tertiary structures and that theoretical attempts at predicting the later from the primary sequence solely as an energy minimization problem have not yet met with appreciable success in any practical case make this an extremely interesting and challenging problem. Whether the conformation that the protein finally adopts is indeed a unique energy minimum or whether it is only one of the many local minima into which the protein chain can be coaxed by gentle prodding from one minimum to another is one of the as yet unanswered but hotly discussed questions in biology today.

My thanks are due to the National Science Foundation, the National Institutes of Health, and the Roswell Park Memorial Institute for support and to Mrs. C. Vincent and J. C. Wallace for preparing some of the diagrams in this article. I wish to record my indebtedness to Professor David Harker for continued encouragement and advice and to Dr. Jake Bello whose ingenuity and skill provided us with all the crystalline material used in obtaining the results on ribonuclease discussed here. It is also my pleasure to thank Professor M. F. Perutz, who first showed me how to take X-ray diffraction photographs of globular proteins, and Professor G. N. Ramachandran, who initiated me in the application of X-ray diffraction methods to fibrous proteins.

Additions and Corrections

Volume 1, 1968

F. H. Westheimer: Pseudo-Rotation in the Hydrolysis of Phosphate Esters.

Page 77. The sentence beginning on the next to last line should read as follows: Recently Frank and Usher⁸⁷ have found that the hydrolysis of **34** proceeds with production of methanol, whereas that of **33** proceeds with formation of acetoin and dimethyl phosphate; they have explained these results by the pseudorotation hypothesis and the "preference rules" here reviewed.

Hiroshi Tanida: Solvolysis Reactions of 7-Norbornenyl and Related Systems. Substituent Effects as a Diagnostic Probe for Participation.

Page 243. In the formula at the bottom of the right column, $R^+ \rightleftharpoons 37$ should read $R^+ \leftrightarrows 37$.

Page 244. In the upper chart, <00.2% should read <0.02%.