METHODS IN ENZYMOLOGY

Volume XLV

PROTEOLYTIC ENZYMES

Part B

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Volume XLV

Proteolytic Enzymes

Part B

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Laszlo Lorand

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Preface

This volume on "Proteolytic Enzymes," as the previous one (Volume XIX) in the Methods in Enzymology series, was to have been coedited with the late Dr. Gertrude E. Perlmann of The Rockefeller University. Actually, she still participated in much of its organization, diligently sending out letters even from the hospital during the summer of 1974, but, alas, she could not see the task completed. In her passing, I lost a personal friend and an excellent collaborator. My colleagues will surely share my feelings in dedicating this volume to her memory.

Proteolytic enzymes are assuming increasing significance in biological regulation. A published account of a symposium held in the fall of 1974, entitled "Proteases and Biological Control" [(E. Reich, D. B. Rifkin, and E. Shaw, eds.). Cold Spring Harbor, New York, 1975], presents ample evidence that proteolytic enzymes serve as key agents in many intra- and extracellular phenomena. This is a far cry from the days when proteases were considered merely useful tools for protein degradation in nutrition and for protein sequencing. The delicately coordinated systems of the blood coagulation cascade, fibrinolysis, kinin generation, complement activation, fertilization of eggs, cell migration, and mitogenic transformations are but a few of the outstanding examples. In this volume an effort was made to cover rather extensively the enzymes involved in blood coagulation and fibrinolysis and to include the great variety of naturally occurring inhibitors. In general, it is now clear that the field of protease inhibitors is becoming just as exciting as that of the enzymes themselves.

Special thanks are due to Dr. Joyce Bruner-Lorand and to Mrs. Pauline Velasco for their constant help.

Laszlo Lorand

METHODS IN ENZYMOLOGY

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