the grafts develop both an internal anatomic organization and connections with the host brain.

Much fine work is described in this book, but it is extremely diverse and the readership is not easy to define. Most developmental biologists will find much of interest in it. Certainly many in the usual list of basic and clinical neuroscientists will also want to have it in their libraries.

Samuel P. Hicks, M.D.


One looks down the phylogenetic scale, marvels at the regenerative capacities of the central nervous system of lower species, regrets that these attributes have been lost to man, and asks why. Answers have been sought with the expectation that means might be forthcoming to rectify these impediments.

In this context, the International Society for Neurochemistry organized a Symposium under the title "Nervous System Regeneration." This was convened in Catania, Italy, in September, 1981, under the sponsorship of the March of Dimes Birth Defects Foundation. The faculty for this Symposium was selected from the international community of biochemists, cell biologists, and anatomists. Presentations and discussions were structured about five major themes: Regulation of Phenotypic Expression by Hormones and Trophic Factors, Morphology and Biochemical Aspects of Neuronal Sprouting, Genetic and Environmental Factors in Neuronal Response to and Recovery from Injury, Influence of Target Cells and Microenvironment of Neuronal Differentiation and Regeneration, and Control of Motor Locomotion and Related Clinical Aspects. Each theme was developed through five to ten scientific presentations. Chairmen provided overviews or introductory remarks, and often a Summary, "Free Communications" gave added breadth to the Symposium. The material has been carefully edited, well illustrated, and bound attractively in a hard-back cover.

The content of this Symposium is timely with its focus predominantly upon molecular-biochemical events, using widely divergent biological and biochemical systems. Understandably, the level of "Science" varies from presentation to presentation, but the mean is high and within these covers there is a wealth of factual information for neurochemists, neurophysiologists, neuropathologists, and clinical neuroscientists.

One still asks why, and the question remains unanswered. Nevertheless, the knowledge that is assembled in this volume brings us closer to that objective.

F. Stephen Vogel, M.D.


This book consists of a series of papers chosen among those presented at the Seventh International Symposium on Parkinson's Disease (PD) held in Frankfurt
am Main (Federal Republic of Germany) in June 1982. The list of contributors is impressive in its quality but even more in its quantity since it includes over 250 names. The two editors must be congratulated for their gallant attempt to organize the 75 papers into reasonably rational groups. The first group of papers purportedly deals with the role of the pallidum and with that of dopamine and other neurotransmitters in PD. It includes, in fact, a considerable amount of animal research intended to illustrate the basic physiology of the basal ganglia and is, therefore, of varying relevance to the clinical aspects of PD. The second group of papers dealing with the mental status changes in PD includes a paper on the pharmacology of enzyme-activated irreversible decarboxylase inhibitors. These enzymes are dubbed "suicide" enzymes and the word "suicide" in the title probably determined the inclusion of this paper between a contribution on depression in PD and one on Dopa induced mental status changes. The last two groups of papers deal with etiological and clinical aspects and with therapeutic modalities and their mechanisms of action.

The topics covered by the various presentations differ widely. There is also a wider, more fundamental difference between the papers: a few present original work; many more briefly summarize previous work that has already been published elsewhere. Finally, a few articles present generalities, or work that is still in progress.

However, the volume does contain some innovative research with which persons interested in other aspects of PD may not be familiar. If neurologists or neuropathologists wish to know "the state of the art" in PD research at the beginning of the 80's, they would be well advised to consult this book.

François Boller, M.D., Ph.D.