

**GROWTH AND TROPHIC FACTORS.** Edited by J. Regino Perez-Polo, Jean de Vellis and Bernard Haber. Series- Progress in Clinical and Biological Research. Published by Alan R. Liss, Inc., New York, 1983. 456 pages. \$45.00.

In early 1982, the editors of *Journal of Neuroscience Research* corresponded with those publishing in the area of trophic factors for nervous system tissues and requested manuscripts that would be collated in a special issue of the *Journal* in honour of three pioneers of developmental neurobiology — Victor Hamburger, Rita Levi-Montalcini, and Stanley Cohen. The result is a collection of 36 papers devoted mainly to neuronal growth factors (26) but including a section on glial growth factors (7) and other factors for nervous system tissues. The papers have been printed both as a special issue of the *Journal* and as a book.

Section 1 is devoted to neuronotrophic factors and features eleven papers that deal with Nerve Growth Factor (NGF) — the only well-characterized neuronal growth factor. It is fitting that Section 1 emphasizes NGF for it was while Levi-Montalcini was with Hamburger in St. Louis in 1949 that the original experiments of Bueker were repeated and where subsequently Cohen became involved in purification of NGF. Since that time, NGF-related research has burgeoned, and some aspects of this research are covered in papers in Section 1. The parallel development of dissociated culture techniques for neurons has given rise to systems allowing detection and quantitation of other neuronal growth factors. A number of these factors are described in other papers in this section.

Section 2 deals with glial growth factors. One of the mitogens for glia is Epidermal Growth Factor (EGF), and two of the papers in this section deal with the interaction of EGF and glial elements. Stanley Cohen's name is also closely associated with

EGF; the isolation of this protein from mouse submaxillary gland was reported by Cohen in 1962.

This collection is a fitting testimony to the pioneers to whom it is dedicated. The new information that is published in this collection reflects the continued research activity of Hamburger, Levi-Montalcini and Cohen. The purpose of this collection clearly is not to provide critical discussion of aspects of trophic influence; nor has there been an attempt to collate seminal publications in the area of trophism. These aspects of developmental neurobiology have been covered recently in two monographs (see references below), one published as a *Festschrift* to Viktor Hamburger. The stature of individual papers of the present monograph remains to be determined, but at this time, the collection does reflect the explosion of publications in the area of trophic influences in the nervous system that has been witnessed in the past eight to ten years.

"Growth and Trophic Factors" will be a useful addition to the library of those with a background in the area. Students of neurobiology will find this collection and its bibliography a useful reference source and a fairly accurate reflection on the state of the art in the area of trophic influence in the nervous system.

#### *References*

*Studies in Developmental Neurobiology: Essays in Honour of Victor Hamburger.* Ed. W.M. Cowan, Oxford University Press, New York, Oxford, 1981.

*Readings in Developmental Neurobiology.* Eds. P.H. Patterson and D. Purves, Cold Spring Harbour Laboratory, Cold Spring Harbour, New York, 1982.

*R.J. Riopelle, M.D.  
Kingston, Ontario*

---

## Books Received

**CLINICAL NEUROLOGY — THE RESIDENTS GUIDE.** Edited by Alexandre B. Todorov, M.D. Published by Thieme — Stratton Inc. 358 pages. \$30.00 US.

**ELECTROENCEPHALOGRAPHY IN DRUG RESEARCH.** 1982. Edited by Werner M. Hermann. Butterworths Publishers. 608 pages. \$119.95 US.

**HANDBOOK OF LASER NEUROSURGERY.** 1983. By K.K. Jain. Published by Charles C. Thomas. 147 pages. \$29.75 US.

**MULTIPLE SCLEROSIS EAST AND WEST.** 1982. By Yoshigoro Kuroiwa and Leonard T. Kurland. Published by Kyushu University Press. 398 pages. \$118.75 US.

**ELECTRO-CLINICAL FEATURES OF PSYCHOMOTOR SEIZURE.** 1983. By Heinz Gregor Wieser. Published by Butterworth Publishers. 242 pages. \$97.50 US.

**LOCALIZATION IN NEUROPSYCHOLOGY.** 1983. Edited by Andrew Kertesz. Published by Academic Press, Inc. 527 pages. \$53.00 US.