Book Reviews

Receptors: Molecular Biology, Receptor Subclasses, Localization, and Ligand Design. Methods in Neurosciences. Volume 12. Edited by P. Michael Conn. Academic Press, Harcourt Brace Jovanovich, Publishers, San Diego, CA. 1993. xv + 419 pp. 19 × 23.5 cm. ISBN 0-12-185273-3. $85.00.

This is the 12th volume in Methods, a series which attempts to integrate the theoretical and practical aspects of receptor research. Having reviewed Volume 11 and been less than enthusiastic, I was pleasantly surprised by this companion work. Importantly, Volume 12 is arranged orderly, is broadly applicable to scientists interested in receptor studies, takes care to define jargon which may be unfamiliar to individuals not routinely engaged in molecular studies, and provides the appropriate mix of background material and technical description to be useful to "the experienced researcher (and) to the student as well".

Receptors is divided into four sections sequentially addressing (1) molecular biological techniques for receptor study, (2) receptor subclasses, (3) techniques to localize receptors, and (4) the design of novel ligands for receptor evaluation. Section I (12 chapters) is clearly the core of Volume 12 and begins with a general contribution focusing on methods to study promoter mapping and regulation of transcription (Harrington and Buckley). The remaining chapters describe molecular biological techniques useful for evaluating selected receptors including those coupled to G-proteins as well as dopamine, tachykinin, bombesin, NGF, nicotinic, tyrosine kinases and GABA recognition sites. Section II (four chapters) proffers detailed methods to study receptor subtypes in mammalian tissues and covers a range of techniques from *in vitro* ligand binding to *in situ* hybridization. This trend is continued in the third section (six chapters) which focuses on the localization of receptors to specific tissues and is notable for the introduction and discussion of immunohistochemical procedures. The final section provides two chapters on the design of novel ligands for neuropeptide Y recognition sites, which although interesting seemed somewhat out of place compared to the other subject material.

Receptors is richly illustrated with figures, graphs, tables, and cartoons. As is the case for its predecessors, each chapter is independent of the others and easily read. In keeping with other volumes in this series, there is sufficient detail in the methods to allow replication to individuals skilled in the general procedure(s). References are current but presented in abbreviated form; the 14 page index is more than adequate to the volume.

Overall, this volume of Methods was useful to read. It would be of particular value to scientists whose core expertise lies outside the domain of molecular receptor biology and who wish to familiarize themselves with fundamental concepts and terminology. On the other hand, experts (or graduate students training in molecular biological techniques) may find the book too general. Nevertheless, the book is certainly recommended for the department (or institutional) library.

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