lecular genetics and the biology of the laboratory mouse. As the house mouse and its genome are sometimes employed or regarded (regrettably) as a genetic "test-tube," there is growing need for the student as well as those who manage colonies of mice to become familiar with the biology of this fascinating creature. Though mundane, "all you ever wanted to know about the sex-life and reproductivity of the house mouse but were afraid to ask" is covered in this book. However, one should not be misled into thinking that the primary mission of the book is to give equal and independent time to husbandry issues along with molecular genetic technology. *Mouse Genetics* is truly a composite in which all elements contribute to a global understanding. It provides exciting reading for the student and continuing education for the more applied worker and above all unifies its topic. There are practical discussions for the student or researcher including such sections as "starting *from scratch* with a new mapping project." In his effort to assist the reader in the "fundamental goal of molecular genetics," Silver describes and evaluates strategies for mutagenesis (chemical, transgene, knock-out) and linkage analysis (using backcross, congenic, and recombinant inbred strains) to dissect how "genotypes *are* translated into phenotypes." Silver's insightful interest in the evolution of genomes surfaces over and over again in the text, making this book an exciting introduction to the comprehensive biology that is involved in the intriguing mysteries of the evolutionary process.

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Interleukins Etc.

Guidebook to Cytokines and Their Receptors. NICOS A. NICOLA, Ed. Oxford University Press, New York, 1995. xvi, 261 pp., illus., + plates. $75 or £45; paper, $39.50 or £22.50. A Sambrook and Tooze publication.

Most books on cytokines are of evanescent value, being rendered obsolete very quickly by the emergence of new ligands, new receptors, new transducers, and new facts. With this thought in mind I looked askance at *Guidebook to Cytokines and Their Receptors*. Surely, I thought, the task of evaluating it would be akin to appraising a computer with a 386 chip. Refreshingly, it was not. True, there are specific areas in which discoveries have eclipsed the material presented. But for the most part the facts and principles set forth are not likely to change. This attests, in part, to the diligence of Nicola and the panel of experts he has enlisted to lay out the information. It also says something about the field as a whole, which seems at last to have reached a point of maturity.

The book begins with an overview of the cytokines, written by Nicola himself, and an overview of their receptors, written by Douglas J. Hilton. The reductionist approach that these authors entertain is most helpful, since only four families of receptors are known to accommodate the dozens of cytokines that exist. It is a bit disappointing to find that the book then presents the cytokines in an order dictated by their numbers, rather than clustering them in groups related to receptor function or structure. What, after all, do the appellations "IL-1, IL-2, . . . IL-*n*" really mean?

The enduring quality of this *Guidebook* owes much to the stylistic consistency and thoroughness of the individual entries. Many, though not all, of the cytokines have

Vignettes: Confidings of Herpetology

By the late 1980s . . . scientists who work with frogs slowly and cautiously began sharing their tales of frog-finding difficulty with their colleagues. Among herpetologists, particularly those who work in the field more than in laboratories, being able to find amphibians traditionally has been a matter of pride. If a graduate student returned from a summer field trip complaining about not being able to find animals, colleagues and teachers assumed the student was not very competent. So when the professionals began sharing their experiences of not finding frogs, it was almost cathartic, like releasing some horrible family secret.

—*Kathryn Phillips*, in *Tracking the Vanishing Frogs: An Ecological Mystery* (St. Martin's Press; Penguin paperback)

Once, I was a member of a prestigious panel of herpetologists meeting to decide the future of herpetology. There were about eight of us sitting around a conference table. Glancing around, I noticed that about two-thirds of us had a missing digit. Herpetologists cannot resist picking up venomous snakes. Sooner or later, most manage to get bitten, and they often lose part of a digit in the process. I felt right at home in that group, even though I didn't lose mine to a snake (how were they to know?).

—*Eric R. Pianka*, in *The Lizard Man Speaks* (University of Texas Press)

now been crystallized, and a good number of three-dimensional structural models are presented. Schematic representations of the receptors are included as well, creating an immediate impression of the type of signal transduction that is likely to occur (a notable deficiency here concerns the TNF receptor family, for which a number of transducing molecules have emerged since publication). Detailed descriptions of several knockout phenotypes are also presented.

This book meets an obvious need. Many cytokine workers immediately find themselves out of their depth when the conversation (or the impulse of research) turns to a factor with which they have no hands-on experience. For them the *Guidebook* sets forth facts of a solid character that are not likely to change in the near term. This makes the book extremely attractive and well worth buying.

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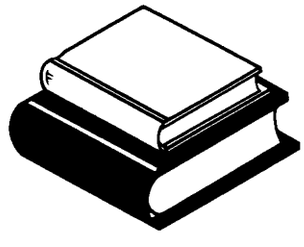

Reprints of Books Previously Reviewed

Early Quantum Electrodynamics. A Source Book. Arthur I. Miller. Cambridge University Press, New York, 1995. Paper, $24.95. *Reviewed* **265**, 1605 (1994).

Galileo At Work. His Scientific Biography. Stillman Drake. Dover, New York, 1995. Paper, $14.95. *Reviewed* **206,** 439 (1979).

Polymers. The Origins and Growth of a Science. Herbert Morawetz. Dover, New York, 1995. Paper, $11.95. *Reviewed* **231,** 167 (1986).

The Quark and the Jaguar. Adventures in the Simple and the Complex. Murray Gell-Mann. Freeman, New York, 1995. Paper, $15.95. *Reviewed* **264,** 1480 (1994).

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Books Received

Advances in Linear Logic. Jean-Yves Girard, Yves Lafont, and Laurent Regnier, Eds. Cambridge University Press, New York, 1995. viii, 389 pp. Paper, $44.95. London Mathematical Society Lecture Note. 222.

Advances in Mucosal Immunology. Jiri Mestecky *et al.*, Eds. Plenum, New York, 1995. 2 vols. Part A, xliv pp. + pp. 1-698, illus. Part B, iv pp. + pp. 699-1680, illus. $245. Advances in Experimental Medicine and Biology, vol. 371. From a congress, Prague, Aug. 1992.

Biology of the Sialic Acids. Abraham Rosenberg, Ed. Plenum, New York, 1995. xvi, 378 pp., illus. $95.

Biology Takes Form. Animal Morphology and the German Universities, 1800-1900. Lynn K. Nyhart. University of Chicago Press, Chicago, 1995. xiv, 414 pp., illus., + plates. $75 or £59.95; paper, $27.50 or £21.95. Science and Its Conceptual Foundations.

Causal Cognition. A Multidisciplinary Debate. Dan Sperber, David Premack, and Ann James Premack, Eds. Clarendon (Oxford University Press), New York, 1995. xx. 670 pp., illus. $115. Symposia of the Fyssen Foundation. From a symposium, St-Germain-en-Laye, Jan. 1993.

Cell Architecture and Metabolic Channeling. Judit Ovádi. Springer-Verlag, New York, and Landes, Austin, TX, 1995 (distributor, CRC Press, Boca Raton, FL).