before the last chapter, where Wise presents his suggestions for future research. If they hurry, there might still be some *Arachnophobia* posters left for their office walls.

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Perspectives on Poisons

Natural and Synthetic Neurotoxins. A. L. HARVEY, Ed. Academic Press, San Diego, CA, 1993. xviii, 359 pp., illus. $45 or £45. Neuroscience Perspectives.

It has been more than a century since Claude Bernard, in his *Experimental Science*, provided a definition of poisons in modern terms and indicated their special usefulness for the physiologist. Bernard suggested that by dissecting the mechanisms that result in death we could learn much about the physiological processes of life. The 19th-century reader of Bernard's book could not have imagined the impact this suggestion would have, the extent of the information that would accumulate, or the number of books and articles on the subject that would appear. *Natural and Synthetic Neurotoxins* is the latest such endeavor. Its individual contributions review the fundamental chemistry and pharmacology of neurotoxins, describe their main interactions with their target structures, and indicate their many interesting uses as experimental tools.

The book centers around a well-written and pedagogically valuable chapter on neurotoxins that act on acetylcholine receptors. Here Chiappinelli gradually reveals the problems, offering an optimistic yet realistic outlook on future research. The chapter contains a history of work on this topic, rich in learned citations, as well as a systematic analysis of the structure and mode of action of the toxins known to be active on nicotinic and muscarinic acetylcholine receptors. Equally effective is Simpson's chapter on the action of clostridial neurotoxins on the storage and release of neurotransmitters, although an explosion of new data on the putative mode of action of these toxins has undermined some of the ideas in it. I also enjoyed Lobban and Milligan's chapter on the structure and function of bacterial exotoxins (essentially cholera and pertussis toxins) and their action on the second intracellular messenger pathway. Irwin and Langston review the toxicology of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP), which induces a parkinsonian syndrome in humans that is very useful for developing animal models of that disease. Equally stimulating are the chapters on the neurotoxins that allow a mapping of neuronal pathways by lesioning that both elucidates the toxins' physiological and behavioral effects and facilitates the establishment in animal models of syndromes that mimic human diseases. Vornov *et al.* have contributed a well-documented chapter describing the neurotoxicity of excitatory neurotransmitters.

The authors of the rest of the chapters tend to present their data by way of an iterative formula: "toxin–toxin structure–target structure–putative organization of the target." Although informative, these contributions are too schematic to really engage the reader. A more serious criticism I have of the book is that some chapters seem to contain categorical statements about matters that are still under investigation (for instance, in the coverage of the effects of cannabinoids, social and behavioral aspects are ignored).

Overall I found this book a balanced compendium but rather inharmonious in style and awkward in structure. Problems of this sort can be forgiven in a book of such wide scope. Less acceptable are the numerous small errors scattered about (for example, "internationalization" for "internalization," "aspecific" for "a specific"), which could have been prevented by more careful proofreading.

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Books Received

Analysis and Geometry on Groups. N. Th. Varopoulos, L. Saloff-Coste, and T. Coulhon. Cambridge University Press, New York, 1993. xii, 156 pp. $44.95. Cambridge Tracts in Mathematics, 100.

Applied Factor Analysis in the Natural Sciences. Richard A. Reyment and K. G. Jöreskog. 2nd ed. Cambridge University Press, New York, 1993. xii, 371 pp., illus. $79.95.

Apricots and Oncogenes. On Vegetables and Cancer Prevention. Eileen Jennings. McGuire and Beckley, Cleveland, OH, 1993. viii, 309 pp. Paper, $13.95.

Aquariums. Windows to Nature. Leighton Taylor. Prentice Hall General Reference, New York, 1993. xxii, 170 pp., illus. $35.

The Arenaviridae. Maria S. Salvato, Ed. Plenum, New York, 1993. xxvi, 401 pp., illus. $85. Viruses.

The Asian Elephant. Ecology and Management. R. Sukumar. Cambridge University Press, New York, 1993. xviii, 255 pp., illus. Paper, $34.95. Cambridge Studies in Applied Ecology and Resource Management. Reprint, 1989 ed.

Bacterial Conjugation. Don B. Clewell, Ed. Plenum, New York, 1993. xvi, 413 pp., illus. $89.50.

Bad Science. The Short Life and Weird Times of Cold Fusion. Gary Taubes. Random House, New York, 1993. xxii, 503 pp. $24.50.

Bedouins of Qatar. Klaus Ferdinand. Ida Nicolaisen, Ed. Rhodos International Science and Art, Copenhagen, and Thames and Hudson, New York, 1993 (distributor, Norton, New York). 399 pp., illus. $50. Carlsberg Foundation's Nomad Research Project.

Biological Physics. Eugenie V. Mielczarek, Elias Greenbaum, and Robert S. Knox, Eds. American Institute of Physics, New York, 1993. x, 423 pp., illus. $58. Key Papers in Physics.

Biomechanics. Mechanical Properties of Living Tissues. Y. C. Fung. 2nd ed. Springer-Verlag, New York, 1993. xviii, 568 pp., illus. $49.50.

Birds in Brazil. A Natural History. Helmut Sick. Paul Barruel, illustrator. Princeton University Press, Princeton, NJ, 1993. xviii, 708 pp., illus., + plates. $95 or P70. Translated from the Portuguese edition (1984) by William Belton.

Blood Cell Biochemistry. Vol. 5, Macrophages and Related Cells. Michael A. Horton, Ed. Plenum, New York, 1993. xx, 434 pp., illus. $89.50.

Cellular Communication in Plants. Richard M. Amasino, Ed. Plenum, New York, 1993. x, 181 pp., illus. $69.50. From a symposium, Madison, WI, May 1992.

Coming Attractions. The Making of an X-Rated Video. Robert J. Stoller, and I. S. Levine. Yale University Press, New Haven, CT, 1993. x, 246 pp. $30.

Computer Analysis of Electrophysiological Signals. John Dempster. Academic Press, San Diego, CA, 1993. xvi, 221 pp., illus. Spiral bound, $29.50. Biological Techniques.

Condensed Matter Theories. Vol. 8. Lesser Blum and F. Bary Malik, Eds. Plenum, New York, 1993. xii, 684 pp., illus. $149.50. From a workshop, San Juan, Puerto Rico, June 1992.

Control of Messenger RNA Stability. Joel G. Belasco and George Brawerman, Eds. Academic, San Diego, CA, 1993. xviii, 517 pp., illus. $79.95.

Controversial Science. From Content to Contention. Thomas Brante, Steve Fuller, and William Lynch, Eds. State University of New York Press, Albany, 1993. xx, 326 pp., illus. $19.95.

Cormorants, Darters, and Pelicans of the World. Paul A. Johnsgard. Smithsonian Institution Press, Washington, DC, 1993. xvi, 445 pp., illus., + plates. $49.

Correspondence, Invariance and Heuristics. Essays in Honour of Heinz Post. Steven French and Harmke Kamminga, Eds. Kluwer, Norwell, MA, 1993. xxiv, 356 pp. $137, P97, or Dfl.235. Boston Studies in the Philosophy of Science, vol. 148.

The Correspondence of Charles Darwin.. Vol. 8, 1860. Frederick Burkhardt *et al.*, Eds. Cambridge University Press, New York, 1993. xl, 766 pp., illus. $59.95.

Cytokine Therapy. David W. Galvani and John C. Cawley, Eds. Cambridge University Press, New York, 1993. xii, 193 pp., illus. $65; paper, $24.95.

Dailey's Notes on Blood. John F. Dailey. 2nd ed. Medical Consulting, Somerville, MA, 1993. viii, 178 pp., illus. $26; paper, $18.

The Darwinian Paradigm. Essays on Its History, Philosophy, and Religious Implications. Michael Ruse. Routledge, New York, 1993. x, 299 pp., illus. Paper, $17.95. Reprint, 1989 ed.

Dead Reckoning. Calculating Without Instruments. Ronald W. Doerfler. Gulf, Houston, TX, 1993. x, 182 pp., illus. Paper, $17.95.

Dendritic Cells in Fundamental and Clinical Immunology. Eduard W. A. Kamperdijk, Paul Nieuwenhuis, and Elisabeth C. M. Hoefsmit, Eds. Plenum, New York, 1993. xiv, 653 pp., illus. $135. Advances in Experimental Medicine and Biology, vol. 329. From a symposium, Amsterdam, June 1992.

Designing Antibodies. Ruth D. Mayforth. Academic, San Diego, CA, 1993. viii, 207 pp., illus. Spiral bound, $49.95.

Emerging Viruses. Stephen S. Morse, Ed. Oxford University Press, New York, 1993. xxiv, 317 pp., illus. $39.95.

Environmental Simulation. Research and Policy Issues. Robert W. Marans and Daniel Stokols, Eds Plenum, New York, 1993. xvi, 327 pp., illus. $49.50.

Ergonomics for Beginners. A Quick Reference Guide. J. Dul and B. A. Weerdmeester. Taylor and Francis, Philadelphia, 1993. xii, 133 pp., illus. Paper, $19. Translated from the Dutch edition (1991).

The Ergonomics of Manual Work. William S.