

of apoptotic cells. In general, the reviews are erudite and complete (up to about mid 1994). Overall they cover the majority of what we know regarding the phenomenon of apoptosis in lymphocytes.

Apoptosis is "hot." Immunology has always been either hot or frustratingly abstruse, depending on one's perspective. *Apoptosis and the Immune Response* should be sizzling (in an abstruse way). It isn't. Though it is by no means "death by review," neither is it a scientific page-turner. The reviews do what they can to discuss where apoptosis occurs, what triggers (or prevents) it, and even what function it may have in a larger context. We get a good idea of the prevalence and importance of apoptosis in the immune system and even gain some insights, but something critical is, probably inevitably, missing.

So be warned: We do not know how apoptosis actually occurs. We knew even less at the time these reviews were written. Most of them go over the same ground in describing the molecular basis for active cell death and its regulation, and of course there is no consensus on (or really even a proposal regarding) the mechanism. Meanwhile, the fundamental machinery of apoptosis is being examined in a variety of systems (many not described here) and we do not yet know how this growing understanding will affect fields such as immunology. When we do, maybe that will be sizzling.

Each chapter attempts, with more or less success, to review the immunology so that the apoptosis being considered has a context. Unfortunately, I doubt that this will (except perhaps in the case of the chapters on hematopoiesis and phagocytosis) bring the immunology within the grasp of readers who have previously avoided the field. The book thus is probably most suited to individuals with a passion for understanding apoptosis as it specifically applies to lymphocytes and with some acquaintance with the ins and outs of modern immunology. For these people, there is a lot of useful information here.

While the clonal selection theory changed the course of modern immunology, the application of apoptosis research to the immune system has only begun to create ripples (though some of the ripples are interesting). Trevor Howard advised Joseph Cotten to "leave death to the professionals" in Graham Greene's script for *The Third Man*, although he naturally meant another sort of professional (despite the noir pharmaceutical subplot of the story). He also warned that "death's at the bottom of everything." We'll see.

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## Books Received

**Akathisia and Restless Legs.** Perminder Sachdev. Cambridge University Press, New York, 1995. xiv, 425 pp. \$69.95.

**The Antisocial Personalities.** David T. Lykken. Erlbaum, Hillsdale, NJ, 1995. x, 259 pp., illus. \$49.95; paper, \$24.50.

**Applied Analysis of the Navier-Stokes Equations.** Charles R. Doering and J. D. Gibbon. Cambridge University Press, New York, 1995. xiv, 217 pp. \$59.95; or \$24.95. Cambridge Texts in Applied Mathematics.

**Archaea: A Laboratory Manual.** Book 1, Halophiles. S. DasSarma and E. M. Fleischmann, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1995. xvi, 280 pp., illus. Spiralbound, \$65.

**Are We Alone?** Philosophical Implications of the Discovery of Extraterrestrial Life. Paul Davies. Basic-Books, New York, 1995. xvi, 160 pp., illus. \$20.

**Biogeochemistry of a Forested Ecosystem.** Gene E. Likens and F. Herbert Bormann. 2nd ed. Springer-Verlag, New York, 1995. xii, 159 pp., illus. Paper, \$29.95.

**Biological Control of Social Forest and Plantation Crops Insects.** T. N. Ananthakrishnan, Ed. Science Publishers, Lebanon, NH, 1995. xii, 227 pp., illus. \$72.

**Cell Adhesion and Cancer.** I. Hart and N. Hogg, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1995. vi, 165 pp., illus. \$75. Cancer Surveys, vol. 24.

**Chironomidae [Diptera] of Japan.** Manabu Sasa and Mihoko Kikuchi. University of Tokyo Press, Tokyo, 1995. vi, 333 pp., illus. \$105.

**Chronicles of the Frigate Macedonian, 1809-1922.** James Tertius de Kay. Norton, New York, 1995. 336 pp. \$25.

**Chrysophyte Algae.** Ecology, Phylogeny and Development. Craig D. Sandgren, John P. Smol, and Jørgen Kristiansen, Eds. Cambridge University Press, New York, 1995. xiv, 399 pp., illus. \$79.95. From a symposium, Kingston, Ontario, Canada, Aug. 1991.

**City of Bits.** Space, Place, and the Infobahn. William J. Mitchell. MIT Press, Cambridge, MA, 1995. vi, 225 pp., illus. \$20.

**Civil Space in the Clinton Era.** Partners in Space . . . 2001. Donald R. McConathy and Paula Korn, Eds. American Astronautical Society, San Diego, CA, 1995 (distributor, Univelt, San Diego, CA). xiv, 278 pp., illus. \$70; paper, \$50. Science and Technology Series, vol. 85. From a meetings, Crystal City, VA, March and Nov. 1994.

**Dinosaur Tracks and Other Fossil Footprints of the Western United States.** Martin Lockley and Adrian P. Hunt. Columbia University Press, New York, 1995. xxii, 338 pp., illus. \$29.95.

**Directory of Electronic Journals, Newsletter and Academic Discussion Lists.** Ann Okerson, Ed. 5th ed. Association of Research Libraries, Washington, DC, 1995. iv, 760 pp. Paper, \$62; to ARL member libraries, \$41.

**Disinfectants.** Actions and Applications. H. A. McDaniel, Ed. Office International des Epizooties, Paris, 1995. Part 1, 248 pp. Paper, \$50 or FrF265. Part 2, 248 pp., Paper, \$50 or FrF265. Scientific and Technical Review, vol. 14, nos. 1-2 (1995).

**The Dynamic Nature of Ecosystems.** Chaos and Order Entwined. Claudia Pahl-Wostl. Wiley, New York, 1995. xiv, 267 pp., illus. \$79.95.

**Early Transition Metal Clusters with  $\pi$ -Donor Ligands.** Malcolm H. Chisholm, Ed. VCH, New York, 1995. xii, 289 pp., illus. \$115. Chemistry of Metal Clusters.

**Electroporation Protocols for Microorganisms.** Jac A. Nickoloff, Ed. Humana, Totowa, NJ, 1995. xx, 372 pp., illus. Spiralbound, \$69.50. Methods in Molecular Biology, 47.

**Encyclopedia of Environmental Biology.** William A. Nierenberg, Ed. Academic Press, San Diego, CA, 1995. Vol. 1, A-E. xvi, 767 pp., illus. Vol. 2, F-N. xiv, 654 pp., illus. Vol. 3, O-Z, Index. xiv, 693 pp., illus. The set, \$475 (until 30 Sept., \$395).

**Epidemiology and the Delivery of Health Care Services.** Denise M. Oleske, Ed. Plenum, New York, 1995. xvi, 235 pp., illus. \$45.

**The Good Ship.** Ships, Shipbuilding and Technolo-

gy in England 1200-1520. Ian Friel. Johns Hopkins University Press, Baltimore, MD, 1995. 208 pp., illus. \$35.95.

**Handbook of Culture and Mental Illness.** An International Perspective. Ihsan Al-Issa, Ed. International Universities Press, Madison, CT, 1995. xiv, 391 pp. \$52.

**Introduction to Clinical Psychology.** Lynda A. Heiden and Michel Hersen, Eds. Plenum, New York, 1995. xviii, 409 pp., illus. \$39.50.

**Introduction to Geochemical Modeling.** Francis Albarède. Cambridge University Press, New York, 1995. xx, 543 pp., illus. \$89.95.

**Introduction to Space Physics.** Margaret G. Kivelson and Christopher T. Russell, Eds. Cambridge University Press, New York, 1995. xvi, 568 pp., illus. \$110; paper, \$42.95.

**Meaningful Differences in the Everyday Experience of Young American Children.** Betty Hart and Todd R. Risley. Paul H. Brookes, Baltimore, MD, 1995. xvi, 268 pp., illus. \$22.

**Metapatterns.** Across Space, Time, and Mind. Tyler Volk. Columbia University Press, New York, 1995. x, 296 pp., illus. \$24.95.

**Methods in Plant Molecular Biology.** A Laboratory Course Manual. Pal Maliga et al. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1995. xiv, 446 pp., illus. \$110; spiralbound, \$75.

**Microbial Physiology.** Albert G. Moat and John W. Foster, Eds. 3rd ed. Wiley-Liss, New York, 1995. xviii, 580 pp., illus. \$124.95; paper, \$59.95.

**Physics.** A World View. Larry D. Kirkpatrick and Gerald F. Wheeler. 2nd ed. Saunders, Philadelphia, 1995. xxvi, 660 pp., illus., + appendix + index. \$58.25. Accompanied by *Physics: A Numerical World View*. 2nd ed. x, 204 pp. Paper.

**Places of Inquiry.** Research and Advanced Education in Modern Universities. Burton R. Clark. University of California Press, Berkeley, 1995. xiv, 284 pp. \$40 or £32.

**Problems in Quantum Mechanics.** With Solutions. G. L. Squires. Cambridge University Press, New York, 1995. x, 254 pp. \$49.95; paper, \$24.95.

**Pulmonary Vascular Remodelling.** Jill E. Bishop, John T. Reeves, and Geoffrey J. Laurent, Eds. Portland, London, 1995 (U.S. distributor, Ashgate, Brookfield, VT). x, 278 pp., illus. \$128 or £80. Portland Press Research Monograph 6.

**RNA-Protein Interactions.** Kiyoshi Nagai and Iain W. Mattaj, Eds. IRL (Oxford University Press), New York, 1995. xviii, 272 pp., illus. \$98; paper, \$53. *Frontiers in Molecular Biology*.

**Science and the Founding Fathers.** Science in the Political Thought of Jefferson, Franklin, Adams, and Madison. I. Bernard Cohen. Norton, New York, 1995. 368 pp., illus. \$25.

**Sex Determination, Differentiation and Intersexuality in Placental Mammals.** R. H. F. Hunter. Cambridge University Press, New York, 1995. xxii, 309 pp., illus., + plates. \$79.95.

**Thermodynamics and Statistical Mechanics.** Walter Greiner, Ludwig Neise, and Horst Stöcker. Springer-Verlag, New York, 1995. xii, 463 pp., illus. Paper, \$49. Translated from the German edition (1987) by Dirk Rischke.

**Thomas Gray in Copenhagen.** In Which the Philosopher Cat Meets the Ghost of Hans Christian Andersen. Philip J. Davis. Copernicus (Springer-Verlag), New York, 1995. xvi, 192 pp., illus. \$16 or £23.

## Publishers' Addresses

Below is information about how to direct orders for books reviewed in this issue. A fuller list of addresses of publishers represented in *Science* appears in the issue of 26 May 1995, page 1220.

**Cambridge University Press,** 110 Midland Ave., Port Chester, NY 10573-4930. Phone: 800-872-7423; 914-937-9600. Fax: 914-937-4712.

**Oxford University Press, Inc.,** Order Dept., 2001 Evans Rd., Cary, NC 27513. Phone: 800-451-7556; 919-677-0977. Fax: 919-677-1303.

**Wiley-Liss,** c/o John Wiley and Sons, Inc., Eastern Distribution Center, 1 Wiley Dr., Somerset, NJ 08875-1272. Phone: 800-225-5945, x2497; 908-469-4400. Fax: 908-302-2300.