

vide constraints on the regeneration mechanism of the field; however, progress on this aspect of the subject has been slow. R. Hide gives a useful review of the expected forms of fluid motion, and F. Krause discusses some results from mean-field electrodynamics. Krause finds that the associated ohmic dissipation is an important constraint on the length and time scales of the convective cells.

This brief tour demonstrates the book's diversity. No editorial attempt has been made to integrate the results of different fields. Many of the papers in the book are reports of research and not reviews. These features make the book inappropriate for teaching purposes. It does, however, provide an excellent entry to the modern literature on most aspects of the earth's core as well as some stimulating papers.

GUY MASTERS

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Seismology

Earthquake Forecasting and Warning. TSUNEJI RIKITAKE. Center for Academic Publications Japan, Tokyo, and Reidel, Boston, 1983 (distributor, Kluwer Boston, Hingham, Mass.). xxii, 402 pp., illus. \$45. Developments in Earth and Planetary Science, 03.

This is the third book in a series produced by Rikitake. In 1976, *Earthquake Prediction*, written entirely by Rikitake, provided the first comprehensive overview of initial earthquake prediction efforts in Japan, China, the Soviet Union, and the United States. The book provided a summary of theories of earthquake prediction and the observational data existing at that time that suggested that large earthquakes were indeed predictable. *Current Research in Earthquake Prediction I*, partly written by Rikitake, appeared in 1981. It covered various aspects of the Japanese earthquake prediction program, with two brief sections on U.S. activities. In this third book, Rikitake attempts to update the status of earthquake prediction efforts in Japan, China, the Soviet Union and the United States; to give an overview of some of the organizational, legal, and societal aspects of earthquake prediction in these four countries; and to update scientific findings of precursory phenomena.

For scientists interested in earthquake prediction the most important contribution of the book is the summary of the circumstances surrounding the 1975 Hai-

cheng earthquake (magnitude 7.3), the 1978 Tangshan earthquake (magnitude 7.8), and the 1976 Songpan-Pingwu earthquake (magnitudes 7.2, 6.8, 7.2) in China and the 1978 Izu-Oshima earthquake (magnitude 7.0) in Japan. As a result of several trips to China, Rikitake is able to provide insightful reports about the successful short-term predictions of the Haicheng and Songpan-Pingwu earthquakes (which probably saved several tens of thousands of lives) and the nonprediction of the Tangshan earthquake (in which 244,000 people died according to official estimates—unofficial estimates are as high as 655,000). The summaries of earthquake precursory phenomena manage to leave the reader both fascinated and perplexed, for few "hard" scientific data are actually available. Successful predictions notwithstanding, both Rikitake and the reader are forced to admit that because Chinese seismologists depend heavily upon non-scientifically sampled "macroscopic anomalies" (unusual animal behavior, water-well fluctuations, natural gas emissions, and the like) it is still nearly impossible to understand their prediction criteria.

It is unfortunate that this book fails to provide a comprehensive summary of recent advances in earthquake prediction research. Though some recent progress in Japan is cited, the significant advances made in the United States since 1979 in earthquake recurrence estimates and crustal deformation and seismicity monitoring are not covered at all. For example, on the subject of crustal deformation measurements, the author refers to several papers published over 12 years ago but totally disregards over a score of publications in the last decade that establish deformation and slip rates along the San Andreas fault zone. It is also regrettable that the only evidence offered of progress in earthquake prediction is various types of data collected over a short period preceding an earthquake, types of data that have become familiar over the years. The definition of specific seismic gaps and the quantitative assessment of earthquake probabilities, the development of detailed observation systems, and the determination of long-term rates of seismicity and crustal deformation are all significant accomplishments that readers will be unable to assess.

The exact form earthquake prediction information should take for effective transmission to the public and the public response to such information are extremely important topics that are each the subject of a chapter in the book. The

Japanese experience with these issues provides important insight. Also of interest is the summary of the circumstances surrounding the "Ishibashi hypothesis." In this case a mild panic occurred owing to the misinterpretation of a reasonable scientific hypothesis about the area that would be affected by a repeat occurrence of a great earthquake that occurred in 1854. This case reminds us of the difficult task we face in maintaining scientifically credible earthquake prediction research efforts in the face of possibly extreme public pressure for up-to-date information.

MARK D. ZOBACK

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Books Received

Absorption and Scattering of Light by Small Particles. Craig F. Bohren and Donald R. Huggman. Wiley-Interscience, New York, 1983. xvi, 530 pp., illus. \$44.95.

Advances and Trends in Structural and Solid Mechanics. Papers from a symposium, Washington, D.C., Oct. 1982. Ahmed K. Noor and Jerrold M. Housner, Eds. Pergamon, New York, 1983. viii, 588 pp., illus. \$165.

Advances in Agronomy. Vol. 35. N. C. Brady, Ed. Academic Press, New York, 1983. xii, 306 pp., illus. \$45.50.

Advances in Drying. Vol. 2. Arun S. Mujumdar, Ed. Hemisphere, Washington, D.C., 1983. xiv, 302 pp., illus. \$55.

Advances in Vertebrate Neuroethology. Proceedings of an institute, Kassel, Germany, Aug. 1981. Jörg-Peter Ewert, Robert R. Capranica, and David J. Ingle, Eds. Plenum, New York, 1983. xviii, 1238 pp., illus. \$150. NATO Advanced Science Institutes Series A, vol. 56.

Agricultural Development in China, Japan and Korea. Papers from a conference, Taipei, Dec. 1980. Chi-ming Hou and Tzong-shian Yu, Eds. Academia Sinica, Taipei, Republic of China, 1983 (U.S. distributor, University of Washington Press, Seattle). xiv, 878 pp., illus. \$40.

Algebra of Conscience. A Comparative Analysis of Western and Soviet Ethical Systems. Vladimir A. Lefebvre. Reidel, Boston, 1982 (distributor, Kluwer Boston, Hingham, Mass.). xxx, 194 pp., illus. \$39. Theory and Decision Library, vol. 26.

The Alligator Rivers. Prehistory and Ecology in Western Arnhem Land. Carmel Schrire. Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra, 1982 (distributor, Australian National University Press, Canberra). xxx, 278 pp., illus. Paper, \$A14.50. Terra Australis 7.

The Amateur Naturalist's Diary. Vinson Brown. Prentice-Hall, Englewood Cliffs, N.J., 1983. viii, 184 pp., illus. Cloth, \$16.95; paper, \$9.95.

Androgenization in Women. Pathophysiology and Clinical Aspects. Papers from a symposium, Turin, Italy, Sept. 1981. Gian Michele Molinatti, Luciano Martini, and Vivian H. T. James, Eds. Raven, New York, 1983. xiv, 202 pp., illus. \$42.

Annual Review of Pharmacology and Toxicology. Vol. 23. Robert George, Ronald Okun, and Arthur K. Cho, Eds. Annual Reviews, Palo Alto, Calif., 1983. xii, 714 pp., illus. \$27.

Annual Review of Public Health. Vol. 4. Lester Breslow, Jonathan E. Fielding, and Lester B. Lave, Eds. Annual Reviews, Palo Alto, Calif., 1983. viii, 424 pp. \$27.

Application of High Magnetic Fields in Semiconductor Physics. Proceedings of a conference, Grenoble, France, Sept. 1982. G. Landwehr, Ed. Springer-Verlag, New York, 1983. xii, 552 pp., illus. Paper, \$28.50. Lecture Notes in Physics, vol. 177.

Atlas of Dermatology with Differential Diagnosis. Gernot Rassner. Translated from the German edition (Munich, 1983) and edited by Guinter Kahn. Urban and Schwarzenberg, Baltimore, ed. 2, 1983. xii, 208 pp. \$29.50.

'Autistic' Children. New Hope for a Cure. Niko (Continued on page 337)

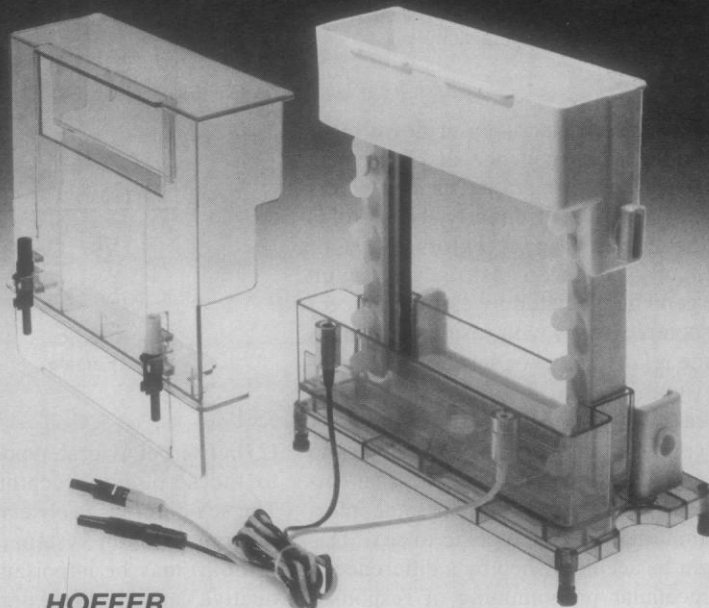
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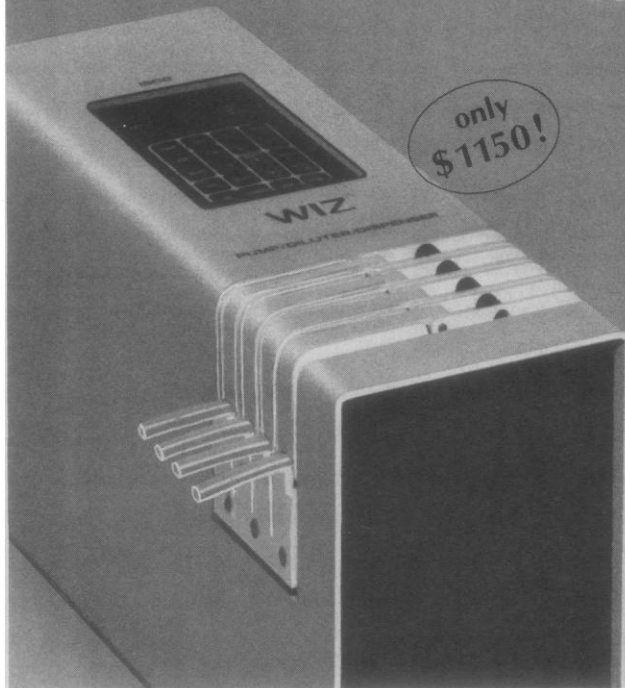
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BOOKS RECEIVED

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Tinbergen and Elisabeth A. Tinbergen with contributions from Martha Welch and Michele Zappella. Allen and Unwin, Boston, 1983. x, 362 pp., illus., + plates. \$39.50.

The Badgers of the World. Charles A. Long and Carl Arthur Killingley, Eds. Thomas, Springfield, Ill., 1983. xxiv, 404 pp., illus. \$39.75.

Behavior and the Menstrual Cycle. Richard C. Friedman, Ed. Dekker, New York, 1982. x, 468 pp., illus. \$55. Sexual Behavior, 1.

Beneficial Effects of Endotoxins. Alois Nowotny, Ed. Plenum, New York, 1983. xiv, 582 pp., illus. \$69.50.

Biogeography and Ecology of the Island of Newfoundland. G. Robin South, Ed. Junk, The Hague, 1983 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xii, 724 pp., illus. \$130. Monographiae Biologicae, vol. 48.

Biological Functions of Microtubules and Related Structures. Proceedings of a seminar, Tokyo, Nov. 1981. Hikoichi Sakai, Hideo Mohri, and Gary G. Borisy, Eds. Academic Press, New York, 1983. xx, 454 pp., illus. \$32.

Biology and Control of Endoparasites. Papers from a symposium, Sydney, Nov. 1981. L. E. A. Symons, A. D. Donald, and J. K. Dineen, Eds. Academic Press, New York, 1982. xiv, 416 pp., illus. \$58.

The Biology and Management of an Extinct Species. Père David's Deer. Papers from a workshop, Front Royal, Va., May 1978. Benjamin B. Beck and Christen Wemmer, Eds. Noyes, Park Ridge, N.J., 1983. xiv, 194 pp., illus. \$26. Noyes Series in Animal Behavior, Ecology, Conservation and Management.

A Biosystematic Study of the European Stratiomyidae (Diptera). Vol. 2. Clitellariinae, Hermetiinae, Pachygasterinae and Bibliography. Rudolf Rozkošný, Junk, The Hague, 1983 (U.S. distributor, Kluwer Boston, Hingham, Mass.). viii, 432 pp., illus. \$87. Series Entomologica, vol. 25.

The Black Death. Natural and Human Disaster in Medieval Europe. Robert S. Gottfried. Free Press (Macmillan), New York, and Collier Macmillan, London, 1983. xviii, 204 pp. \$16.95.

Blacks in Science. Ancient and Modern. Ivan Van Sertima, Ed. Transaction Books (Rutgers University), New Brunswick, N.J., 1983. 304 pp., illus. Paper, \$14.95. Incorporating *Journal of African Civilizations*, vol. 5, Nos. 1 and 2.

Bypasses. A Simple Approach to Complexity. Z. A. Melzak. Wiley-Interscience, New York, 1983. xviii, 246 pp., illus. \$34.95.

California Diet and Exercise Program. Peter Wood. Anderson World Books, Mountain View, Calif., 1983. 288 pp., illus. \$13.95.

Cancer Incidence in Singapore, 1968-1977. K. Shanmugaratnam, H. P. Lee, and N. E. Day, W. Davis, Ed. International Agency for Research on Cancer, Lyon, 1983 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). xvi, 172 pp., illus. Paper, \$15. IARC Scientific Publications no. 47.

Catalog of Cometary Orbits. Brian G. Marsden. Published by arrangement with the Central Bureau for Astronomical Telegrams, I.A.U., by Enslow, Hillside, N.J., 1983. iv, 96 pp. Paper, \$10.

Caught Unawares. The Energy Decade in Retrospect. Martin Greenberger. Ballinger (Harper and Row), Cambridge, Mass., 1983. xxvi, 418 pp. \$24.50.

Cell Biology. Structure, Biochemistry, and Function. Phillip Sheeler and Donald E. Bianchi. Wiley, New York, ed. 2, 1983. xx, 668 pp., illus. \$29.95.

Ceramics for High-Performance Applications III. Reliability. Proceedings of a conference, Orcas Island, Wash., July 1979. Edward M. Lenoe, R. Nathan Katz, and John J. Burke, Eds. Plenum, New York, 1983. xvi, 826 pp., illus. \$89.50. Army Materials Technology Conference Series, vol. 6.

Chemistry and Biochemistry of Legumes. S. K. Arora, Ed. Edward Arnold, Baltimore, 1983. x, 360 pp., illus. \$49.50.

Children's Emotions and Moods. Developmental Theory and Measurement. Michael Lewis and Linda Michalson. Plenum, New York, 1983. xvi, 472 pp. \$39.50.

Clinical and Oral Microbiology. Alexander W. McCracken and Roderick A. Cawson. Hemisphere, Washington, D.C., and McGraw-Hill, New York, 1983. x, 630 pp., illus. \$32.

Clinical Trials. Issues and Approaches. Stanley H. Shapiro and Thomas A. Louis, Eds. Dekker, New York, 1983. x, 210 pp., illus. \$34.50. Statistics, vol. 46.

Common Crisis North-South. Cooperation for World Recovery. The Brandt Commission. MIT Press, Cambridge, Mass., 1983. xii, 174 pp. Paper, \$4.95.

Commutative Algebra. Papers from a symposium.

Durham, July 1981. R. Y. Sharp, Ed. Cambridge University Press, New York, 1983. 250 pp. Paper, \$24.95. London Mathematical Society Lecture Note Series, 72.

Complex Analysis. (The Hitchhiker's Guide to the Plane). Ian Stewart and David Tall. Cambridge University Press, New York, 1983. x, 290 pp., illus. Cloth, \$79.50; paper, \$16.95.

Computers in Analytical Chemistry. Philip G. Barker. Pergamon, New York, 1983. xvi, 472 pp., illus. \$75. Pergamon Series in Analytical Chemistry, vol. 6.

Concepts and Models of Inorganic Chemistry. Bodie E. Douglas, Darl H. McDaniel, and John J. Alexander. Wiley, New York, ed. 2, 1982. xiv, 800 pp., illus. \$34.95.

Creationism, Science, and the Law. The Arkansas Case. Marcel C. La Follette, Ed. MIT Press, Cambridge, Mass., 1983. xii, 236 pp. Cloth, \$20; paper, \$9.95. Partly reprinted from *Science, Technology, and Human Values*, summer 1982.

Current Topics in Chinese Science. Gordon and Breach, New York, 1982. Section A, Physics. Vol. 1. x, 425 pp., illus. Paper, \$22. Section B, Chemistry. Vol. 1. x, 438 pp., illus. Paper, \$22.50. Section D, Biology. Vol. 1. x, 430 pp., illus. Paper, \$22. Section E, Astronomy. Vol. 1. viii, 164 pp., illus. Paper, \$9. Section F, Earth Science. Vol. 1. x, 518 pp., illus. Paper, \$26.50. Section G, Medical Science. Vol. 1. viii, 236 pp., illus. Paper, \$12.50. Reprinted from *Kexue Tongbao*, vol. 26, and *Scientia Sinica*, vol. 24 (1981).

Data and Formulae for Engineering Students. J. C. Anderson, D. M. Hum, B. G. Neal, and J. H. Whitelaw. Pergamon, New York, ed. 3, 1983. xii, 62 pp. Cloth, \$11; paper, \$5.

Diseño y Construcción de Biodigestores. Papers from a symposium, Cartago, Costa Rica, Aug. 1980. Editorial Tecnológica de Costa Rica, Cartago, 1981. 178 pp., illus. Paper, \$145.

The Development of Social Knowledge. Morality and Convention. Elliot Turiel. Cambridge University Press, New York, 1983. viii, 240 pp. Cloth, \$39.50; paper, \$13.95. Cambridge Studies in Social and Emotional Development.

Developmental Psycholinguistics. Three Ways of Looking at a Child's Narrative. Carole Peterson and Allyssa McCabe. Plenum, New York, 1983. xxxii, 246 pp. \$27.50. Cognition and Language.

Diapause and Life Cycle Strategies in Insects. Papers from a congress, Kyoto, Japan, 1980. Valerie K. Brown and Ivo Hodek, Eds. Junk, The Hague, 1983 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xii, 284 pp., illus. \$59.50. Series Entomologica, vol. 23.

Dictionary of Energy. Carl W. Hall and George W. Hinman. Dekker, New York, 1983. vi, 286 pp., illus. \$35. Energy, Power, and Environment, 16.

Digital Image Processing of Remotely Sensed Data. R. Michael Hord. Academic Press, New York, 1982. xiv, 256 pp., illus. \$27. Notes and Reports in Computer Science and Applied Mathematics, 5.

A Dynamical Theory of the Electromagnetic Field. James Clerk Maxwell. With an appreciation by Albert Einstein. Thomas F. Torrance, Ed. Scottish Academic Press, Edinburgh, 1983 (U.S. distributor, Columbia University Press, New York). xiv, 104 pp. Paper, \$12. Reprinted from *The Scientific Papers of James Clerk Maxwell* (1890).

Eclectic Psychotherapy. A Systematic Approach. Larry E. Beutler. Pergamon, New York, 1983. xvi, 256 pp. \$25. Pergamon General Psychology Series.

The Ecology of a Tropical Forest. Seasonal Rhythms and Long-Term Changes. Egbert G. Leigh, Jr., A. Stanley Rand, and Donald M. Windsor, Eds. Smithsonian Institution Press, Washington, D.C., 1982. 468 pp., illus. Paper, \$25.

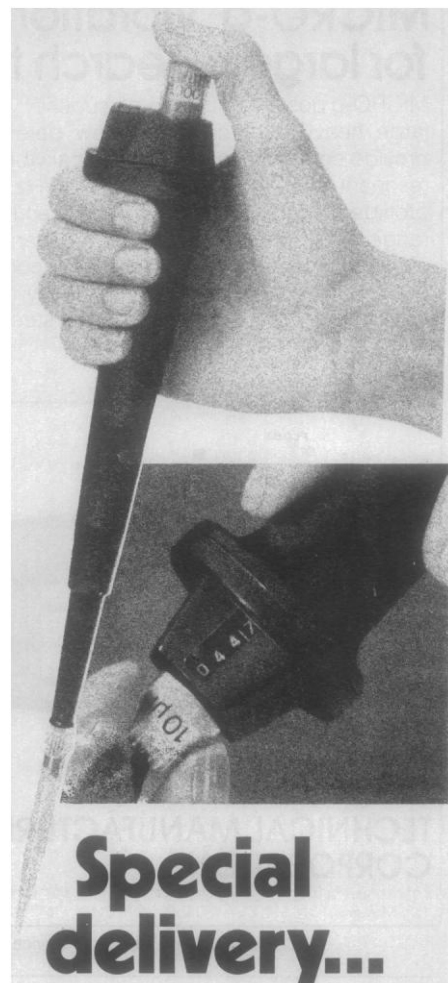
Edible Horticultural Crops. A Compendium of Information on Fruit, Vegetable, Spice and Nut Species. Clive Hackett and Julie Carolane, Eds. Academic Press, New York, 1983. Four volumes. xxiv, 674 pp. Spiral bound, \$59.50.

Electronic Excitation Energy Transfer in Condensed Matter. V. M. Agranovich and M. D. Galanin. Translated from the Russian edition by O. Glebov. North-Holland, Amsterdam, 1982 (U.S. distributor, Elsevier, New York). xxiv, 372 pp., illus. \$104.75. Modern Problems in Condensed Matter Sciences, vol. 3.

Elements of Episodic Memory. Endel Tulving. Clarendon (Oxford University Press), New York, 1983. xii, 352 pp. \$29.95. Oxford Psychology Series no. 2.

Endocrine Disorders and Tumours in Children. Pathology of Sexual Development. Papers from a congress, Tübingen, Oct. 1979. P. P. Rickham, W. Ch. Hecker, J. Prévot, and A. F. Schärl. Eds. Urban and Schwarzenberg, Baltimore, 1983. x, 198 pp., illus. \$27.50. Progress in Pediatric Surgery, vol. 16.

Energetika Biosfery. Uchebnoe Posobie. V. G. Gorskikh, Leningradskii Politehnicheskii Institut, Leningrad, 1982. 80 pp., illus. Paper, 20 kopek.



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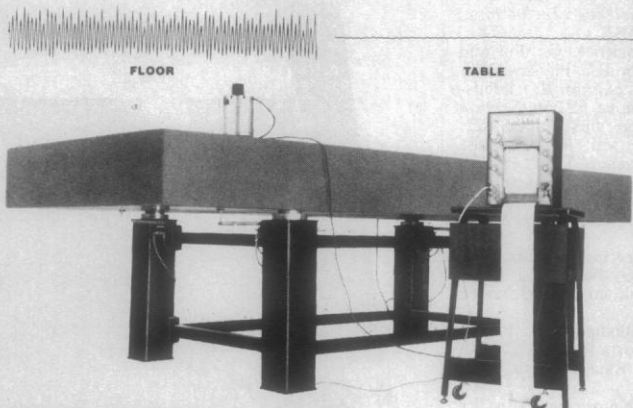
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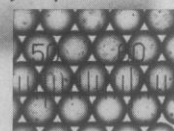
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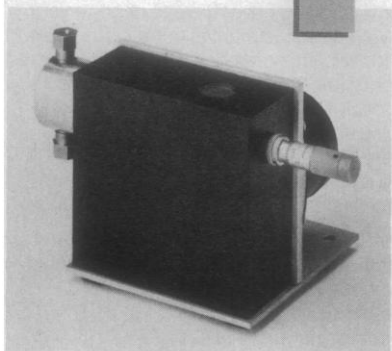


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Energy Resources and Energy Corporations. Duane Chapman. Cornell University Press, Ithaca, N.Y., 1983. 366 pp., illus. \$19.95.

Energy Risk Assessment. Herbert Inhaber. Gordon and Breach, New York, 1982. xxvi, 396 pp., illus. \$49.50.

L'Enfant et Ses Complexes. L'Oedipe, la Castration, l'Inferiorité, les Différences, la Rivalité. . . Jean-Marie Besse and Marc Ferrero. Mardaga, Brussels, 1983. 208 pp. Paper, 620 BF. Psychologie et Sciences Humaines, 117.

Ethics and Animals. Harlan B. Miller and William H. Williams, Eds. Humana, Clifton, N.J., 1983. xii, 400 pp. \$39.50. Contemporary Issues in Biomedicine, Ethics, and Society.

Eukaryotic Cell Genetics. John Morrow. Academic Press, New York, 1983. xiv, 262 pp., illus. \$34. Cell Biology.

Ever-Expanding Horizons. The Dual Informational Sources of Human Evolution. Carl P. Swanson. University of Massachusetts Press, Amherst, 1983. xii, 162 pp., illus. Cloth, \$13.50; paper, \$7.50.

Excitons. E. I. Rashba and M. D. Sturge, Eds. North-Holland, Amsterdam, 1982 (U.S. distributor, Elsevier, New York). xii, 866 pp., illus. \$197.50. Modern Problems in Condensed Matter Sciences, vol. 2.

Exploration Seismology. Vol. 1. History, Theory, and Data Acquisition. R. E. Sheriff and L. P. Geldart. Cambridge University Press, New York, 1983. xii, 254 pp., illus. \$29.95.

Factors Regulating Ovarian Function. Papers from a workshop, Madison, Wis., July 1982. Gilbert S. Greenwald and Paul F. Terranova, Eds. Raven, New York, 1983. xxvi, 482 pp., illus. \$45.

The Failing Heart. Adaptation and Deadaptation. F. Z. Meerson. Arnold M. Katz, Ed. Raven, New York, 1983. xviii, 324 pp., illus. \$44.

A Feeling for the Organism. The Life and Work of Barbara McClintock. Evelyn Fox Keller. Freeman, San Francisco, 1983. xx, 236 pp., illus. \$17.95.

The Filamentous Fungi. Vol. 4. Fungal Technology. John E. Smith, David R. Berry, and Bjorn Kristiansen, Eds. Edward Arnold, Baltimore, 1983. xiv, 402 pp., illus. \$74.50.

The Fischer Indole Synthesis. Brian Robinson. Wiley-Interscience, New York, 1983. xiv, 924 pp., illus. \$200.

Flash Photolysis and Pulse Radiolysis. Contributions to the Chemistry of Biology and Medicine. R. V. Bensasson, E. J. Land, and T. G. Truscott. Pergamon, New York, 1983. viii, 236 pp., illus. \$19.95.

Fluoride Emissions. Their Monitoring and Effects on Vegetation and Ecosystems. Papers from a workshop, Sydney, Aug. 1981. Frank Murray, Ed. Academic Press, New York, 1982. xiv, 234 pp., illus. \$29.50.

Fortschrittsberichte aus Naturwissenschaft und Medizin. Papers from a meeting, Mannheim, Sept. 1982. Heinz A. Staab, Wolfgang Gerok, Hubert Markl, Werner Martienssen, and Heinz Gibian, Eds. Wissenschaftliche Verlagsgesellschaft, Stuttgart, 1983. 352 pp., illus. Paper, DM 32.

Frontiers in Science and Technology. A Selected Outlook. A Report by the Committee on Science, Engineering, and Public Policy of the National Academy of Sciences. National Academy of Engineering, Institute of Medicine. Freeman, San Francisco, 1983. xii, 228 pp., illus. Cloth, \$30; paper, \$14.95.

Function of Quinones in Energy Conserving Systems. Bernard L. Trumpower, Ed. Academic Press, New York, 1982. xxvi, 582 pp., illus. \$74.50.

The Genesis Mystery. A Startling New Theory of Outside Intervention in the Development of Modern Man. Jeffrey Goodman. Times Books, New York, 1983. xiv, 304 pp., illus. \$16.60.

Genetic Engineering in Eukaryotes. Proceedings of an institute, Pullman, Wash., July 1982. Paul F. Lurquin and Andris Kleinhofs, Eds. Plenum, New York, 1983. x, 282 pp., illus. \$45. NATO Advanced Science Institutes Series A, vol. 61.

Genetic Engineering of Plants. An Agricultural Perspective. Proceedings of a symposium, Davis, Calif., Aug. 1982. Tsune Kosuge, Carole P. Meredith, Alexander Hollaender, and Claire M. Wilson, Eds. Plenum, New York, 1983. xii, 500 pp., illus. \$69.50. Basic Life Science, vol. 26.

Genetics. George P. Rédei. Macmillan, New York, and Collier Macmillan, London, 1982. xii, 736 pp., illus., + appendix. \$27.95.

Glossary of Terms in Heat Transfer, Fluid Flow, and Related Topics. English, Russian, German, French, and Japanese. William Begell, Ed. Hemisphere, Washington, D.C., 1983. xvi, 116 pp., + appendix. Paper, \$29.95.

Governments and Microelectronics. The European Experience. Dirk de Vos. Science Council of Canada, Ottawa, 1983 (available from Canadian Government Publishing Centre, Hull, Quebec, Canada). 112 pp. Paper, C\$5.40. Background Study 49.

Grant Proposals That Succeeded. Virginia White.

Plenum, New York, 1983. viii, 240 pp., illus. \$22.50. Nonprofit Management and Finance.

The Greater Omentum. Anatomy, Physiology, Pathology, Surgery with an Historical Survey. D. Liebermann-Meffert, Harvey White, and E. Vaubel, Eds. Springer-Verlag, New York, 1983. xx, 370 pp., illus. \$180.

Gutshop '81. Fish Food Habits Studies. Proceedings of a workshop, Pacific Grove, Calif., Dec. 1981. Gregor M. Cailliet and Charles A. Simenstad, Eds. Washington Sea Grant, Seattle, Wash., 1982. viii, 312 pp., illus. Paper, \$8.

Handbook of Polycyclic Aromatic Hydrocarbons. Alf Bjørseth, Ed. Dekker, New York, 1983. xii, 728 pp., illus. \$125.

Handbook of the Spinal Cord. Vol. 1. Pharmacology. Robert A. Davidoff, Ed. Dekker, New York, 1983. xii, 546 pp., illus. \$69.75.

Handbook on the Physics and Chemistry of Rare Earths. Vol. 5. Karl A. Gschneidner, Jr., and LeRoy Eyring, Eds. North-Holland, Amsterdam, 1982 (U.S. distributor, Elsevier, New York). x, 702 pp., illus. \$149.

Heat Exchangers. Theory and Practice. Papers from a seminar, Dubrovnik, 1981. J. Taborek, G. F. Hewitt, and N. Afgan, Eds. Hemisphere, Washington, D.C., and McGraw-Hill, New York, 1983. xii, 980 pp., illus. \$69.95.

The Hopeful Future. G. Harry Stine. Macmillan, New York, 1983. xiv, 238 pp. \$16.95.

Host Defenses to Intracellular Pathogens. Proceedings of a conference, Philadelphia, June 1981. Toby K. Einsenstein, Paul Actor, and Herman Friedman, Eds. Plenum, New York, 1983. xvi, 538 pp., illus. \$65. Advances in Experimental Medicine and Biology, vol. 162.

The Human Brain and Spinal Cord. Functional Neuroanatomy and Dissection Guide. Lennart Heimer. Springer-Verlag, New York, 1983. xii, 402 pp., illus. \$34.95.

The Humane Use of Human Ideas. The Discoveries Project and Eco-Technology. Shuhei Aida, Ed. Pergamon, New York, 1983. x, 312 pp. Cloth, \$40; paper, \$19.95.

Hunter-Gatherer Economy in Prehistory. A European Perspective. Geoff Bailey, Ed. Cambridge University Press, New York, 1983. viii, 248 pp., illus. \$49.50. New Directions in Archaeology.

Hydra: Research Methods. Howard M. Lenhoff, Ed. Plenum, New York, 1983. xxxii, 464 pp., illus. \$59.50.

Immunobiology of the Eosinophil. Proceedings of a symposium, Fukuoka, Japan, Nov. 1981. Takeshi Yoshida and Motomichi Torisu, Eds. Elsevier, New York, 1983. xviii, 400 pp., illus. \$75.

Immunogenetics. Marek B. Zaleski, Stanislaw Dubiski, Edward G. Niles, and Roger K. Cunningham. Pitman, Boston, 1983. xvi, 514 pp., illus. \$34.95.

Induced Abortion. A World Review. 1983. Christopher Tietze. Population Council, New York, ed. 5, 1983. xii, 116 pp., illus. Paper, \$6. A Population Council Fact Book.

Information Representation and Manipulation Using Pascal. E. S. Page and L. B. Wilson. Cambridge University Press, New York, 1983. xii, 272 pp., illus. Cloth, \$29.95; paper, \$12.95. Cambridge Computer Science Texts, 15.

Inorganic Biochemistry. Proceedings of a symposium, Karlskoga, Sweden, Sept. 1982. Ragnar Österberg, Ed. The Royal Swedish Academy of Sciences, Stockholm, 1983. 164 pp., illus. Paper, 300 Sw.kr. Also published in *Chemica Scripta*, vol. 21 (1983). Nobel Symposium 56.

Insecticide Mode of Action. Joel R. Coats, Ed. Academic Press, New York, 1982. xiv, 470 pp., illus. \$59.50.

Integrated Optics. Physics and Applications. Proceedings of an institute, Erice, Italy, Aug. 1981. S. Martellucci and A. N. Chester, Eds. Plenum, New York, 1983. x, 420 pp., illus. \$57.50. NATO Advanced Science Institutes Series B, vol. 91.

International Review of Cytology. G. H. Bourne, J. F. Danielli, and K. W. Jeon, Eds. Supplement 15, Aspects of Cell Regulation. J. F. Danielli, Ed. Academic Press, New York, 1983. xiv, 284 pp., illus. \$37.50.

Interpretations of Calamity from the Viewpoint of Human Ecology. K. Hewitt, Ed. Allen and Unwin, Boston, 1983. xvi, 304 pp., illus. Cloth, \$35; paper, \$14.95. The Risks and Hazards Series, 1.

Introduction to Immunology. John W. Kimball. Macmillan, New York, and Collier Macmillan, London, 1983. xii, 532 pp., illus. \$27.95.

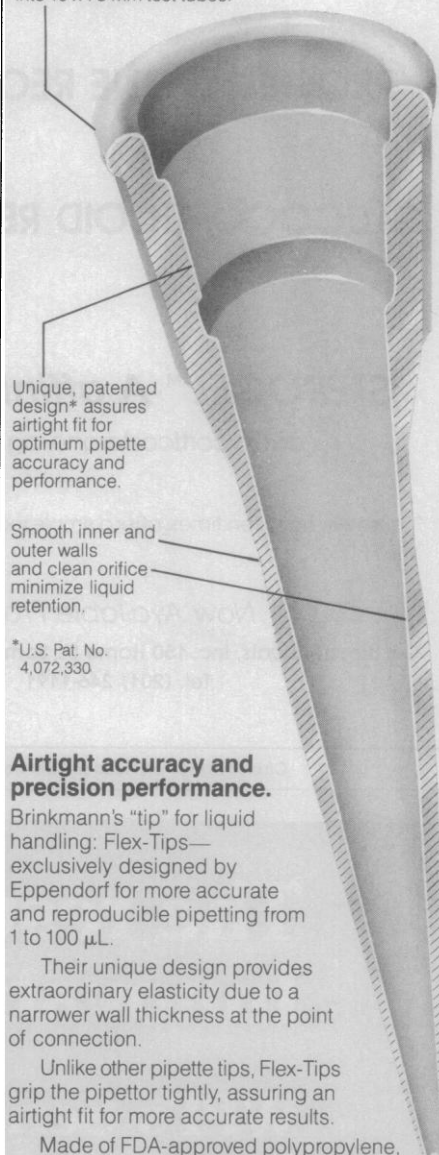
Introduction to Programming with ESP and Pascal. Allen B. Tucker, Jr. Holt, Rinehart and Winston, New York, 1983. xvi, 362 pp. Paper.

Ion-Selective Electrode Reviews. Vol. 4. J. D. R. Thomas, Ed. Pergamon, New York, 1983. vi, 286 pp., illus. \$84. First published as *Ion-Selective Electrode Reviews*, vol. 4, Nos. 1 and 2.

Ions, Cell Proliferation, and Cancer. Proceedings of a symposium, Lake Placid, N.Y., July 1982. Alton L. Boynton, Wallace L. McKeehan, and

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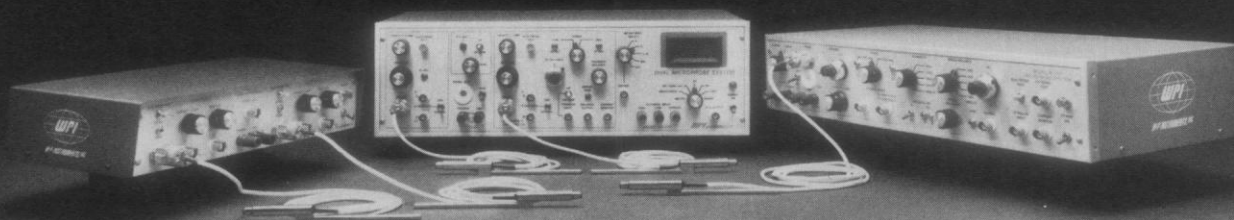
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Kepler. A Novel. John Banville. Godine, Boston, 1983. vi, 198 pp., \$13.95.

Kew Chromosome Conference II. Proceedings of a conference, Kew, England, Sept. 1982. P. E. Brandham and M. D. Bennett, Eds. Allen and Unwin, Boston, 1983. xxii, 382 pp., illus. \$35.

Laterality. Functional Asymmetry in the Intact Brain. M. P. Bryden. Academic Press, New York, 1982. xiv, 322 pp., illus. \$29.50. Perspectives in Neurolinguistics, Neuropsychology, and Psycholinguistics.

Legal Aspects of Geology. Ronald W. Tank. Plenum, New York, 1983. xii, 584 pp., illus. Cloth, \$49.50; paper, \$19.95.

Light and Color in Nature and Art. Samuel J. Williamson and Herman Z. Cummins. Wiley, New York, 1983. xxii, 488 pp., illus., + plates. \$27.95.

The Logic of Decision. Richard C. Jeffrey. University of Chicago Press, Chicago, ed. 2, 1983. xiv, 232 pp., illus. \$20.

Lymphoid Cells. John I. Gallin and Anthony S. Fauci, Eds. Raven, New York, 1983. x, 374 pp., illus. \$54. Advances in Host Defense Mechanisms, vol. 2.

Magnetism in Solids. Some Current Topics. Proceedings of a summer school, Dundee, Aug. 1981. A. P. Cracknell and R. A. Vaughan, Eds. Scottish Universities Summer School in Physics, University of Edinburgh Department of Physics, Edinburgh, 1983. xiv, 490 pp., illus. £22.

Mammalian Neuroendocrinology. Geoffrey W. Bennett and Saffron A. Whitehead. Oxford University Press, New York, 1983. viii, 280 pp., illus. Cloth, \$29.95; paper, \$19.95.

Mathematical Experiments on the Computer. Ulf Grenander. Academic Press, New York, 1982. xviii, 526 pp., illus. \$39.50. Pure and Applied Mathematics.

The Mathematical Modeling of Metabolic and Endocrine Systems. Model Formulation, Identification, and Validation. Ewart R. Carson, Claudio Cobelli, and Ludwik Finkelstein. Wiley-Interscience, New York, 1983. xxii, 394 pp., illus. \$47.50. Biomedical Engineering and Health Systems.

Mechanism on Pain and Acupuncture. Kōyō Takase. 21st Century Co., Tokyo, 1983. Various pagings, illus. Paper, \$20.

The Mechanisms of Job Stress and Strain. John R. French, Jr., Robert D. Caplan, and R. Van Harrison. Wiley, New York, 1982. x, 160 pp. \$34.95. Wiley Series on Studies in Occupational Stress.

Medical Histology. A Text-Atlas with Introductory Pathology. Robert L. Bacon and Nelson R. Niles. Drawings by Joel Ito. Photographs by James T. Phillips. Springer-Verlag, New York, 1983. xii, 484 pp. \$34.50.

Membrane Fluidity in Biology. Vol. 1, Concepts of Membrane Structure. Roland C. Aloia, Ed. Academic Press, New York, 1983. xii, 328 pp., illus. \$43.

Methods in Enzymology. Sidney P. Colowick and Nathan O. Kaplan, Eds. Vol. 91, Enzyme Structure, Part I. C. H. W. Hirs and Serge N. Timasheff, Eds. xxxiv, 694 pp., illus. \$45. Vol. 92, Immunochemical Techniques. Part E, Monoclonal Antibodies and General Immunoassay Methods. John J. Langone and Helen Van Vunakis, Eds. xxiv, 648 pp., illus. \$65. Academic Press, New York, 1983.

Methods in Mycoplasmaology. Vol. 1, Mycoplasma Characterization. Shmuel Razin and Joseph G. Tully, Eds. Academic Press, New York, 1983. xxii, 504 pp., illus. \$57.

Michigan Mammals. Rollin H. Baker. Michigan State University Press, East Lansing, 1983. xxii, 642 pp., illus., + plates. \$60.

Microcomputers in K-12 Education. Papers from a conference, Carbondale, Ill., Mar. 1982. Pierre Barrette, Ed. Computer Science Press, Rockville, Md., 1983. x, 132 pp. Paper, \$30.

Mobility and Transport for Elderly and Handicapped Persons. Proceedings of a conference, Cambridge, England, July 1981. Norman Ashford, William G. Bell, and Tom A. Rich, Eds. Gordon and Breach, New York, 1982. xii, 384 pp., illus. \$57.50. Transportation Studies, vol. 2.

Modern Blood Banking and Transfusion Practices. D. Harmening Pittiglio, Anna Jurtschenko Baldwin, and Paul R. Sohm, Eds. Davis, Philadelphia, 1983. xviii, 580 pp., illus., + plates. \$29.95.

Monoamine Oxidase and Its Selective Inhibitors. Papers from a symposium, Mannheim, Mar. 1982. H. Beckmann and P. Riederer, Eds. Karger, Basel, 1983. x, 352 pp., illus. \$118.75. Modern Problems of Pharmacopsychiatry, vol. 19.

Multidimensional Scaling. Mark L. Davison. Wiley, New York, 1983. xiv, 238 pp., illus. \$25.95. Wiley Series in Probability and Mathematical Statistics.

Muscular Dystrophy. Biomedical Aspects. Setsuro Ebashi and Eijiro Ozawa, Eds. Japan Scientific Societies Press, Tokyo, and Springer-Verlag, New York, 1983. x, 302 pp., illus. \$34.

National Health Insurance. A Pragmatic Perspective. Harry Schwartz. National Center for Policy Analysis, Dallas, 1983. 56 pp., illus. Paper.

Neural Coding of Motor Performance. Papers from a symposium, Marseille, Mar. 1982. J. Massion, J. Paillard, W. Schultz, and M. Wiesendanger, Eds. Springer-Verlag, New York, 1983. xii, 350 pp., illus. \$40.50. Experimental Brain Research Supplementum 7.

Neuroanatomy. An Atlas of Structures, Sections, and Systems. Duane E. Haines. Urban & Schwarzenberg, Baltimore, 1983. xii, 212 pp. Spiral bound, \$19.50.

Neuroleptics. Neurochemical, Behavioral, and Clinical Perspectives. Joseph T. Coyle and S. J. Enna, Eds. Raven, New York, 1983. x, 332 pp., illus. \$55. Central Nervous System Pharmacology.

A New Look at the Dinosaurs. Alan Charig. Facts on File, New York, 1983. 160 pp., illus. \$15.95.

Nonlinear Control Engineering. Student Edition. Derek P. Atherton. Van Nostrand Reinhold, New York, 1982. xviii, 470 pp., illus. Paper, \$24.95. Abridgement of 1975 edition.

Nonlinear Laser Chemistry. Multiple-Photon Excitation. V. S. Letokhov. Springer-Verlag, New York, 1983. xiv, 418 pp., illus. \$39.50. Springer Series in Chemical Physics, 22.

Nuclear Illusion and Reality. Solly Zuckerman. Vintage (Random), New York, 1983. 156 pp. Paper, \$2.95. Reprint of the 1982 edition.

The Official Silicon Valley Guy Handbook. Patty Bell and Doug Glazar. Avon, New York, 1983. xviii, 106 pp., illus. Paper, \$3.95.

Old and New Questions in Physics, Cosmology, Philosophy, and Theoretical Biology. Essays in Honor of Wolfgang Yourgrau. Alwyn van der Merwe, Ed. Plenum, New York, 1983. xvi, 920 pp., illus. \$95.

OPEC, the Gulf, and the World Petroleum Market. A Study in Government Policy and Downstream Operations. Fereidun Fesharaki and David T. Isaak. Westview, Boulder, Colo., and Croom Helm, London, 1983. xx, 268 pp., illus. \$27.50.

The Other Face of OPEC. Financial Assistance to the Third World. Ibrahim F. I. Shihata. Longman, New York, 1982. xiv, 282 pp. Paper, \$12.95.

Pathology of Tumours in Laboratory Animals. Vol. 3, Tumours of the Hamster. V. S. Turosov, Ed. International Agency for Research on Cancer, Lyon, 1982 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). xii, 464 pp., illus. \$40. IARC Scientific Publications No. 34.

Perinatal Cardiovascular Function. Norman Gootman and Phyllis M. Gootman, Eds. Dekker, New York, 1983. xiv, 400 pp., illus. \$65.

Photoimmunology. John A. Parrish, Margaret L. Kripke, and Warwick L. Morison, Eds. Plenum, New York, 1983. xvi, 304 pp., illus. \$39.50.

Physical Processes in Laser-Materials Interactions. Proceedings of an institute, Pianore, Italy, July 1980. M. Bertolotti, Ed. Plenum, New York, 1983. xii, 522 pp., illus. \$69.50. NATO Advanced Study Institutes Series B, vol. 84.

Physics and Contemporary Needs. Vol. 5. Proceedings of a summer college, Nathiagali, Pakistan, June 1980. Riazuddin and Asghar Qadir, Eds. Plenum, New York, 1983. xii, 626 pp., illus. \$75.

Physiological Determinants of Crop Growth. D. A. Charles-Edwards. Academic Press, New York, 1983. xiv, 162 pp., illus. \$26.

Plant Cold Hardiness and Freezing Stress. Mechanisms and Crop Implications. Vol. 2. Proceedings of a seminar, Sapporo, Japan, Aug. 1981. P. H. Li and A. Sakai, Eds. Academic Press, New York, 1982. xx, 694 pp., illus. \$39.50.

Plant Physiology. A Treatise. Vol. 7, Energy and Carbon Metabolism. F. C. Steward and R. G. S. Bidwell, Eds. Academic Press, New York, 1983. xviii, 554 pp., illus. \$67.50.

Polarographic Oxygen Sensors. Aquatic and Physiological Applications. E. Gnaiger and H. Forstner, Eds. Springer-Verlag, New York, 1983. xii, 370 pp., illus. \$50.

Polyether Antibiotics. Naturally Occurring Acid Ionophores. Vol. 2, Chemistry. John W. Westley, Ed. Dekker, New York, 1983. xiv, 416 pp., illus. \$65.

Population Genetics in Animal Breeding. Franz Pirchner. Translated and revised from the German edition (Hamburg, 1979). Plenum, New York, ed. 2. 1983. x, 414 pp., illus. \$52.50.

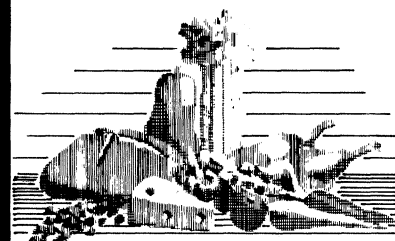
Portland Cement. Composition, Production and Properties. G. C. Bye. Published on behalf of the Institute of Ceramics by Pergamon, New York, 1983. x, 150 pp., illus. Cloth, \$20; paper, \$11.50. The Pergamon Materials Engineering Practice Series.

Power Systems Analysis and Planning. Proceedings of a school, Kuwait, Jan. 1981. Ahmed H. El-Abiad, Ed. Hemisphere, Washington, D.C., 1983. xviii, 312 pp., illus. \$49.50. Proceedings of the Arab School on Science and Technology.

Practical Guide to Computer Applications in Neurosciences. Jan Bureš, Ivan Krekule, and Gustav Brožek. Wiley, New York, 1983. 400 pp. \$51.95.

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Premature Chromosome Condensation. Papers from a workshop, Berlin, Sept. 1980. Potu N. Rao, Robert T. Johnson, and Karl Sperling, Eds. Academic Press, New York, 1982. xvi, 384 pp., illus. \$45. Cell Biology.

Previews and Premises. Alvin Toffler. Morrow, New York, 1983. x, 230 pp. \$11.95.

Primate Behavior. James L. Fobes and James E. King, Eds. Academic Press, New York, 1982. xx, 394 pp., illus. \$27.50. Communication and Behavior.

Principles of Acoustic Devices. Velimir M. Ristic. Wiley-Interscience, New York, 1983. xvi, 360 pp., illus. \$37.50.

Principles of Water Quality Control. T. H. Y. Tebbutt. Pergamon, New York, ed. 3, 1983. x, 236 pp., illus. Cloth, \$40; paper, \$15.

Problem Solving in Biology, Incorporating Experiences in Life Science. A Laboratory Workbook. Eugene H. Kaplan. Macmillan, New York, and Collier Macmillan, London, ed. 3, 1983. xii, 424 pp., illus. Paper, \$14.95.

Quantum Theory of Magnetism. Robert M. White. Springer-Verlag, New York, ed. 2, 1983. xii, 282 pp., illus. \$30. Springer Series in Solid State Sciences, vol. 32.

Radionuclide Distribution and Transport in Terrestrial and Aquatic Ecosystems. A Critical Review of Data. P. J. Coughtrey and M. C. Thorne. Balkema, Rotterdam, 1983 (U.S. distributor, MBS, Salem, N.H.). Three volumes. xvi, 496 pp., illus.; xii, 500 pp., illus.; and xii, 372 pp., illus. Each volume, \$48.

Rehabilitation of the Brain-Damaged Adult. Gerald Goldstein and Leslie Rutven. Plenum, New York, 1983. x, 362 pp., illus. \$27.50. Applied Clinical Psychology.

Relativistic Effects in Atoms, Molecules, and Solids. Proceedings of an institute, Vancouver, Canada, Aug. 1981. G. L. Malli, Ed. Plenum, New York, 1983. x, 544 pp., illus. \$69.50. NATO Advanced Science Institutes Series B, vol. 87.

Reliability in the Acquisitions Process. Douglas J. DePriest and Robert L. Launer, Eds. Dekker, New York, 1983. x, 200 pp., illus. Paper, \$35. Lecture Notes in Statistics, vol. 4.

Research and Productivity. Endogenous Technical Change. Ryuzo Sato and Gilbert S. Suzawa. Auburn House, Boston, 1983. xviii, 200 pp., illus. \$22.95.

Reviews of Physiology, Biochemistry and Pharmacology. 97. R. H. Adrian and 12 others, Eds. Springer-Verlag, New York, 1983. iv, 176 pp., illus. \$35.50.

Science, Agriculture, and the Politics of Research. Lawrence Busch and William B. Lacy. Westview, Boulder, Colo., 1983. xvi, 304 pp., illus. Cloth, \$30; paper, \$12.95. Westview Special Studies in Agriculture Science and Policy. Rural Studies Series of the Rural Sociological Society.

Selected Publications of Wilhelm Nusselt and Ernst Schmidt. Introductory material translated from the German by Jerry Taborek. Hemisphere, Washington, D.C., 1983. x, 262 pp., illus. Paper, \$10.

Short Period Climatic Variations. Collected Works of J. Namias. Vol. 3, 1975-1982. University of California, San Diego, Graphics and Reproduction Services, La Jolla, 1983. x, 394 pp., illus. Paper, \$8.

Sobotta Atlas of Human Anatomy. Helmut Ferner and Jochen Staubesand, Eds. Translated from the German edition (Munich, 1982) and edited by Walter J. Hild. Urban & Schwarzenberg, Baltimore, ed. 10, 1983. Two volumes. Vol. 1, Head, Neck, Upper Extremities. viii, 386 pp. \$42.50. Vol. 2, Thorax, Abdomen, Pelvis, Lower Extremities, Skin. viii, 372 pp. \$42.50.

Social Behavior of Female Vertebrates. Papers from a symposium, Fort Collins, Colo. Samuel K. Wasser, Ed. Academic Press, New York, 1983. xiv, 400 pp. \$35.

Social Gerontology. Michael B. Kleiman, Ed. Karger, Basel, 1983. vi, 206 pp. Paper, \$58.75. Interdisciplinary Topics in Gerontology, vol. 17.

Social Science as Moral Inquiry. Papers from a conference, Berkeley, Calif., Mar. 1980. Norma Haan, Robert N. Bellah, Paul Rabinow, and William M. Sullivan, Eds. Columbia University Press, New York, 1983. xiv, 392 pp. Cloth, \$40; paper, \$12.

Solar Heat Storage: Latent Heat Materials. Vol. 1, Background and Scientific Principles. George A. Lane, Ed. CRC Press, Boca Raton, Fla., 1983. viii, 238 pp., illus. \$76.

Some Mathematical Questions in Biology: Neurobiology. Papers from a symposium, Washington, D.C., Jan. 1982. American Mathematical Society, Providence, R.I., 1982. x, 122 pp., illus. Paper, \$19. Lectures on Mathematics in the Life Sciences, vol. 15.

A Sourcebook of Titanium Alloy Superconductivity. E. W. Collings. Plenum, New York, 1983. xxxviii, 512 pp., illus. \$69.50.

The Soviet View of U.S. Strategic Doctrine. Implications for Decision Making. Jonathon Samuel

Lockwood. Transaction Books (Rutgers University), New Brunswick, N.J., 1983. x, 202 pp. \$19.95.

Statistical Decision Theory and Related Topics III. Vol. 1. Proceedings of a symposium, West Lafayette, Ind., June 1981. Shanti S. Gupta and James O. Berger, Eds. Academic Press, New York, 1982. xviii, 526 pp. \$36.

Statistics for Research. Shirley Dowdy and Stanley Wearden. Wiley, New York, 1983. xvi, 538 pp., illus. \$34.95. Wiley Series in Probability and Mathematical Statistics.

Status Offenders. A Sourcebook. John P. Murray with the assistance of H. Ted Rubin. Boys Town Center, Boys Town, Neb., 1983. xii, 136 pp. Paper, \$7.50.

Stone Spaces. Peter T. Johnstone. Cambridge University Press, New York, 1983. xxii, 370 pp., illus. \$59.50. Cambridge Studies in Advanced Mathematics 3.

Structure and Development of the Greenland-Scotland Ridge. New Methods and Concepts. Proceedings of an institute, Bressanone, Italy, May 1981. Martin H. P. Bott, Svend Saxov, Manik Talwani, and Jörn Thiede, Eds. Plenum, New York, 1983. x, 636 pp., illus. \$85. NATO Conference Series IV, vol. 8.

A Synopsis of North American Desmids. Part II, Desmidiaceae: Placodermaceae. Section 5, The Filamentous Genera. Hannah Croasdale, Carlos E. de M. Bicudo, and G. W. Prescott. University of Nebraska Press, Lincoln, 1983. x, 118 pp., illus. \$26.50.

Technology Assessment and Development. Mangalam Srinivasan, Ed. Praeger, New York, 1982. xxii, 266 pp. \$29.95.

Thermodynamics for Engineers. Jesse S. Doolittle and Francis J. Hale. Wiley, New York, 1983. xx, 588 pp., illus. \$29.95.

Third International Symposium: Cancer Therapy by Hyperthermia, Drugs, and Radiation. Fort Collins, Colo., June 1980. Lyle A. Dethlefsen and William C. Dewey, Eds. National Cancer Institute, Bethesda, Md., 1982 (available from the Superintendent of Documents, Washington, D.C.). xvi, 550 pp., illus. \$21. National Cancer Institute Monograph 61. NIH Pub. No. 82-2437.

Third Symposium on Epidemiology and Cancer Registries in the Pacific Basin. Maui, Hawaii, Jan. 1981. National Cancer Institute, Bethesda, Md., 1982 (available from the Superintendent of Documents, Washington, D.C.). viii, 216 pp., illus. \$13. National Cancer Institute Monograph 62. NIH Pub. No. 82-2438.

The Thread. A Mathematical Yarn. Philip J. Davis. Illustrations by Elisa M. Nazeley. Birkhäuser, Boston, 1983. xiv, 128 pp. \$12.95.

Trace Element Speciation in Surface Waters and Its Ecological Implications. Proceedings of a workshop, Nervi, Italy, Nov. 1981. Gary G. Leppard, Ed. Plenum, New York, 1983. xii, 320 pp., illus. \$45. NATO Conference Series I, vol. 6.

Trace Metals in Sea Water. Proceedings of an institute, Erice, Italy, Mar. 1981. C. S. Wong, Edward Boyle, Kenneth W. Bruland, J. D. Burton, and Edward D. Goldberg, Eds. Plenum, New York, 1983. xiv, 920 pp., illus. \$115. NATO Conference Series IV, vol. 9.

Tradition in Science. Werner Heisenberg. Translated from the German. Seabury Press, New York, 1983. 142 pp. Paper, \$9.95.

User Guide for General Bioeconomic Fishery Simulation Model (GBFSM). Wade L. Griffin and William E. Grant. Sea Grant College Program, Texas A&M University, College Station, 1983. vi, 118 pp., illus. Spiral bound, \$5. TAMU-SG-83-204.

Vacuum Technology, Thin Films, and Sputtering. An Introduction. R. V. Stuart. Academic Press, New York, 1983. viii, 152 pp., illus. \$21.

Water Deficits and Plant Growth. Vol. 7, Additional Woody Crop Plants. T. T. Kozlowski, Ed. Academic Press, New York, 1983. xiv, 252 pp., illus. \$37.

Weather in Your Life. Louis J. Battan. Freeman, San Francisco, 1983. x, 230 pp., illus. Cloth, \$19.95; paper, \$10.95.

Where Have All the Wildflowers Gone? A Region-by-Region Guide to Threatened or Endangered U.S. Wildflowers. Robert H. Mohlenbrock. Illustrations by Mark Mohlenbrock. Macmillan, New York, and Collier Macmillan, London, 1983. xiv, 240 pp., + plates. \$15.95.

White Cell Manual. Dane R. Boggs and Alan Winkelstein. Davis, Philadelphia, ed. 4, 1983. viii, 110 pp., illus. Paper, \$6.95.

Wildfowl of Britain and Europe. Malcolm Ogilvie. Paintings by N. W. Cusa and Peter Scott. Oxford University Press, New York, 1982. viii, 84 pp. \$16.50.

Wildlife Feeding and Nutrition. Charles T. Robbins. Academic Press, New York, 1983. xvi, 344 pp., illus. \$31.50. Animal Feeding and Nutrition.

World Petroleum Resources and Reserves. Joseph P. Riva, Jr. Westview, Boulder, Colo., 1983. xxiv, 356 pp., illus. \$45. A Westview Special Study.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

LINE CLASSIFIED ADVERTISING DEADLINES:
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18 November issue (mailed 11 November): **28 October**
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2 December issue (mailed 25 November): **11 November**

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POSITIONS WANTED

Biochemical Physiologist/Pharmacologist: Ph.D. Extensive experience in biogenic amines metabolism and glucoregulatory hormones research. Expertise in neurochemical techniques and analytical methods. Conversant with radioimmunoassays, radioenzymatic assays, competitive protein binding assays, GC, HPLC, histochemical and tissue culture techniques. Protein chemistry (purification and separation techniques). Several publications. Seeks research/research-related position. M. Hussain, 501 Sixth Street, 6F, Brooklyn, N.Y. 11215. X

Consultant/Acquisitions or Licensing Out, Ph.D., former senior licensing manager for Fortune 500 company. Biosciences (pharmaceuticals, animal health, agricultural products) a specialty. Seek out new products or license yours in Japan and Europe. Box 288, SCIENCE. X

Cytogeneticist. Ph.D. 1973. Broad experience in modern cytogenetics research using chromosome spreading, chromosome banding, TEM and SEM. Also experience in administration as department chairman. Desires to relocate in the southeastern United States. Seeks position in academics as faculty member or department head. Strong commitment to undergraduate and graduate research. Box 292, SCIENCE. 10/21; 11/4

Employer Wanted, for high-performance thinking machine. Advancement of science must be first priority. Box 236, SCIENCE. X

Plant Pathologist/Ecologist: Ph.D. 1976. Interest in fungal plant diseases, ecology of fungi, fungicide testing; 14 years of research experience both in Europe and United States. Publications. References. Awards. Strong practical experience with laboratory, field, and greenhouse experiments. European having U.S. Social Security number. Seeks research position for 1 to 3 years. Will consider replies from any country. Box 291, SCIENCE. X

POSITIONS WANTED

Versatile **Microbiologist** operating at postdoctoral level seeks research position. Interested in nutrition, motility, energy flow, ecology, mode of action of toxicants, and others. Many publications. 7225A Amherst Avenue, St. Louis, Missouri 63130.
10/21, 28; 11/4, 11

Ph.D. (1982) Molecular Biophysics; 1 year of postdoctoral experience; molecular mechanics; protein structure, folding and dynamics; scientific computation; seeks postdoctoral/college teaching; publications; available January 1984. Box 287, SCIENCE.
X

Neuroscience Program, interested in relocating. Nationally recognized, five principal investigators plus support staff. Human, animal, and cellular multidisciplinary research: neurophysiology; psychobiology; psychophysiology; computer modeling; development; neuroimmunology. Clinical services: electroencephalography; neurosensory assessment; polysomnography; neuropsychological assessment. Request program outline. Box 283, SCIENCE.
10/21, 28; 11/4, 11

Pesticide Biochemist/Neurotoxicologist, Ph.D. Extensive research experience in biochemical assays of intrinsic potency of insecticides/chemical toxicants at cellular/molecular level in *in vitro* systems; pesticide toxicity, pharmacokinetics, metabolism and bioanalytical techniques. Desires position in industry/government/research institute. Box 285, SCIENCE.
X

Ph.D. Pharmacologist. Five years of industrial experience with expertise in cancer chemotherapy, anti-metastasis, reverse transformation, and carcinogenesis research. Desires industrial research position. Box 279, SCIENCE.
10/21, 28

Physiologist/Computer Science, Ph.D. (1982). Cardiovascular/hemodynamics. Experience: *in vivo* cardiovascular measurements and models, chronic and acute; 2 years of postdoctoral experience: regional alpha-adrenergic VSM control. Publications. Academic/government/hospital/industry. Box 289, SCIENCE.
10/21, 28; 11/4

As **President/CEO** I will help form or increase profits/sales of your existing biotechnology/life science/health care company. Box 284, SCIENCE, or telephone: 617-965-6340.
10/21, 28; 11/4, 11

Ph.D. candidate, **Zoology**. Six years of experience as electronics technician plus 4 years of research with implant biotelemetry. Seeking position in biological instrumentation research, special interest in telemetry systems. Available April 1984. Jerry Wright, Rural Route 6, Roxanne #93, Carbondale, Illinois 62901.
X

POSITIONS OPEN

ASSISTANT PROFESSOR. Applications are invited for a position at the level of assistant professor (tenure track) in the Department of Chemistry at Stanford University with primary teaching responsibility in organic chemistry. Applicants must be strongly motivated toward research and have a commitment to teaching undergraduates as well as graduates. In applying, send curriculum vitae, list of publications, a brief statement of research interests (three pages or less), and, in addition, have three letters of recommendation sent to: **Professor John Ross, Chairman, Department of Chemistry, Stanford University, Stanford, California 94305**. *Stanford is committed to Equal Opportunity through Affirmative Action in employment, and we are especially eager to identify minority persons and women with appropriate qualifications.* Applications should be received by 30 November 1983.

FACULTY POSITION, CHEMISTRY. Applications are invited for a tenured senior appointment in the Department of Chemistry at Stanford University with primary teaching responsibility in organic chemistry. Applicants must have outstanding research credentials and a strong commitment to teaching undergraduates as well as graduates. In applying, send curriculum vitae and bibliography to: **Professor John Ross, Chairman, Department of Chemistry, Stanford University, Stanford, California 94305**. *Stanford is committed to Equal Opportunity through Affirmative Action in employment and we are especially eager to identify women and minority persons with appropriate qualifications.* Applications should be received by 30 November 1983.

POSITIONS OPEN

ACADEMIC COMPUTING

Colby College is continuing its search for a coordinator of academic computing. The College expects to make this appointment effective in January 1984 (or, possibly, June 1984). The successful applicant will be responsible for providing technical support and assistance to faculty members in seeking, obtaining, installing, and documenting software and datasets which are appropriate for integration into existing courses. In addition, the coordinator will offer workshops or seminars on the use of the various computing facilities at Colby and tutorials to students and faculty on introductory concepts required for specific uses of the computer. This individual will report to the director of the Colby College Computer Center and will have faculty status. Applicants should have considerable experience with user support in an academic setting, a wide knowledge of datasets and software available for academic use, and detailed familiarity with UNIX and several programming languages including PASCAL and FORTRAN, and preferably C and BASIC. It is hoped that the coordinator of academic computing will have experience and continued interest in research and teaching in one of the traditional academic disciplines. Applications, including at least three letters of recommendation, should be sent to: **Professor Thomas R. W. Longstaff, Chair, Academic Computing Search Committee, Colby College, Waterville, Maine 04901**. *Colby College is an Affirmative Action/Equal Opportunity Employer.*

ACQUISITIONS EDITOR SCIENCE THE UNIVERSITY OF CALIFORNIA PRESS

The University of California Press is fortunate to be able to offer an exceptional individual the opportunity to develop and publish a program of important books for the Press.

The person chosen will be located at University of California, Los Angeles, in the Los Angeles office of the Press.

Candidates for this editorial position should be possessed with the intense desire to publish books of consequence. A minimum of 2 years' experience in scholarly or academic publishing is required. Preference will be given to those candidates with extensive publishing experience in the sciences. Salary commensurate with experience.

Your résumé, which we will treat in confidence, should be received by:

Pam Wimberly, Personnel Coordinator
University of California Press
2120 Berkeley Way
Berkeley, Calif. 94720
An Equal Opportunity Employer

Assistant Director for Business Affairs Institute for Advanced Biomedical Research Oregon Health Sciences University

The Oregon Health Sciences University will be opening a new 72,000-square-foot facility dedicated to current research in neurobiology, utilizing state-of-the-art techniques of molecular biology.

The director of the institute seeks an experienced scientific administrator to aid in the planning, oversight of construction, and occupation of the new facility, as well as ongoing general administrative oversight.

The incumbent will be responsible for supervising some administrative staff, maintaining the fiscal records of the Institute, providing liaison to university offices and other staffs, and aiding in the general management of the facility.

Administrative skills or experience in the administration of scientific research is required with such experience in a university or research laboratory being highly desirable. A minimum of a baccalaureate degree is required with advanced degrees being desirable.

Applications or nominations for the position should be sent to:

Dr. Edward Herbert, Director (L101)
Institute for Advanced Biomedical Research
Oregon Health Sciences University
3181 S.W. Sam Jackson Park Road
Portland, Oregon 97201

For full consideration, nominations or applications should be submitted by 1 January 1984.

The Oregon Health Sciences University is an Equal Opportunity Employer.

POSITIONS OPEN

APPLICATIONS PHYSICIST

To assist in the design, development, and commissioning of advanced, ultrahigh-speed super computer processor technology for special purpose application to experimental and theoretical high energy physics problems. The project includes design and evaluation of computer architectures, components, bus and memory structures, high level language compilers and human software interface.

Applicants should hold a Ph.D. in high energy physics and have a minimum of 4 years of postdoctoral experience in high energy physics experimentation including the development of experimental technology and of non-Von Neuman advanced super computer processors for special processor technology.

Normal hours of work will be 40 per week (8:30 a.m. to 5 p.m.). A salary of \$32,200 and full benefits package are offered. Applications should be directed to the attention of: **Joan Haight, Illinois Job Service, 910 South Michigan Avenue, Room 400, Chicago, Illinois 60605**, quoting reference number 2114-H. *An Equal Opportunity Employer, M/F. An employer-paid aid.*

ASSISTANT DIRECTOR DEPARTMENT OF PHARMACOLOGY

Applications are invited for the position of assistant director in the Department of Pharmacology at the New York State College of Veterinary Medicine. Duties include helping in the administration of the department and teaching basic and/or clinical pharmacology to veterinary, graduate and postgraduate students. Candidates should have the D.V.M., Ph.D., or M.D. degree, should be firmly committed to an academic career and have strong or potentially strong programs in either basic or clinical pharmacology. Current research interests in the department include receptor function, ion channels, electrolyte transport, secretion, thyroid hormone action and metabolism, pharmacokinetics, and studies of seizure disorders, diarrheal diseases, and diabetes.

Applications and three letters of recommendation should be sent to:

Dr. Geoffrey W. G. Sharp, Chairman
Department of Pharmacology
New York State College of Veterinary Medicine
Cornell University
Ithaca, N.Y. 14853

Cornell University is an Equal Opportunity/Affirmative Action Employer.

Department of Surgery, Division of Orthopaedics and Rehabilitation, University of California, San Diego (UCSD), is recruiting for an **ASSISTANT PROFESSOR**. Demonstrated experience in research career in health sciences. Background is required in computer interfacing. Strong background in muscle research using laser technology and computer analysis preferred. Study of physiology of single muscle fiber contraction and the study of pathophysiology of neuromuscular disorders as well as ability to obtain extramural support and conduct independent research programs. Please send letter, curriculum vitae, and three references to: **Wayne H. Akeson, M.D., Professor and Head, Division of Orthopaedics and Rehabilitation, University of California Medical Center, 225 Dickinson Street, San Diego, Calif. 92103**.

Position starts January 1984.

All applications received by the closing date of 30 November 1983 will receive thorough consideration.

Salary range related to the academic rank and step of appointment within the established salary schedule of the UCSD Department's Compensation and Incentive Plan.

ASSISTANT (preferred) or ASSOCIATE PROFESSOR—IMMUNOLOGY—Veterinary Microbiology and Immunology Department seeking person with Ph.D. in immunology; D.V.M. preferred but not required. Must be able to develop a productive research program in immunology; teach professional and graduate courses. Send curriculum vitae and names of three references to: **Dr. J. W. Osebold, Chairperson, Search Committee, Department of Veterinary Microbiology and Immunology, University of California, Davis, Calif. 95616**. Applications accepted through 31 December 1983 or until suitable candidate is identified. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR

University of California, Irvine, Department of Pathology, is recruiting for a faculty position at the assistant/associate professor level. Required: M.D., must be Board-certified or -eligible in anatomic/clinical pathology and eligible for licensure in California. Duties: include helping direct the morphologic hematology/coagulation/blood bank areas of the clinical laboratory. This involves teaching residents and technologists as well as medical students in the clinical pathology course. A research program will also be expected and basic or clinical research background and experience is essential. Send curriculum vitae and references to: **Henry Simpkins, M.D., Ph.D., Chief, Division of Laboratory Hematology/Blood Bank, University of California, Irvine, Department of Pathology, 101 City Drive South, Orange, California 92668**, by 28 November 1983.

Affirmative Action Employer

ASSISTANT PROFESSOR OF BIOLOGY. Tenure-track position. Developmental/molecular biologist with postdoctoral training, to teach a course with a laboratory and seminars in developmental and/or molecular biology, to participate in an introductory biology course, and to conduct an active research program involving undergraduates and Ph.D. candidates.

LECTURER—LABORATORY COORDINATOR. Three-quarter time, continuing position. Ph.D. required. The appointee will assume full responsibility for laboratory instruction in introductory biology, including design and updating of experiments, supervision of teaching assistants, purchasing or supplies and instrument maintenance, and will give lectures in the introductory course. The effort to establish an independent research program will be encouraged.

Send curriculum vitae, a description of teaching experience and capabilities, and the names and addresses of three references to: **Dr. Betty M. Twarog, Department of Biology, Bryn Mawr College, Bryn Mawr, Pa. 19010**, by 15 December 1983. *Bryn Mawr College is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF BIOLOGY. Tenure-track position for broadly trained Ph.D. biologist, expected to teach courses in ecology, botany, and general biology. Commitment to research important. Begins September 1984. Send all transcripts, résumé, and letters of reference to: **Dr. Lewis M. Lutton, Biology Department, Mercyhurst College, Erie, Pa. 16546**.

An Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Microbiology, University of Illinois, Urbana, invites applications for a tenure-track appointment at the assistant professor level. The position is available for August 1984. Applicants must have a Ph.D. and at least 2 years of postdoctoral experience. Preference will be given to applicants with expertise in recombinant DNA technology (including DNA sequencing and in vitro mutagenesis) who plan to study contemporary problems in prokaryotic molecular genetics. Candidates working in the area of agriculturally important microorganisms are especially encouraged to apply. The appointee is expected to establish a vigorous research program, to participate in undergraduate and graduate teaching, and to supervise graduate students. Salary is commensurate with education and experience.

Applicants should send curriculum vitae, a summary of future research interests, and the names and addresses of three references to: **Dr. J. Gardner, Department of Microbiology, University of Illinois, 131 Burrill Hall, 407 South Goodwin, Urbana, Illinois 61801** (telephone: 217-333-7287). Applications received after 1 December 1983 may not receive full consideration. *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

BIOPHYSICS/MUSCLE. Funded research position available immediately for biophysical studies of contractile proteins. Current emphasis on thin filament proteins using fluorescence techniques. Facilities include synchronously pumped dye laser and single photon counting equipment. Experience in physical techniques, protein biochemistry, muscle preparation and fluorescent labeling desirable. Ph.D. required, some postdoctoral training preferred. Salary negotiable. Send curriculum vitae to: **Dr. William Wegener, Baylor University Medical Research Institute, 3500 Gaston Avenue, Dallas, Texas 75246**, or contact by telephoning: 214-820-2688. *Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF EPIDEMIOLOGY

The Harvard School of Public Health seeks an assistant professor in the Department of Epidemiology whose principal role would be the implementation of this department's responsibilities in a program of research in biochemical epidemiology to be undertaken jointly with the Department of Nutrition and Food Science, Massachusetts Institute of Technology (MIT). Strong qualifications in epidemiology are expected, including a doctoral degree, or equivalent in research publications, and teaching experience. In addition, candidates should have the academic background or experience necessary to become familiar with modern methods for detection of carcinogens and their toxicologically significant reactions with cellular macromolecules. Opportunities for strengthening knowledge in this area will be provided in the laboratories of the toxicology faculty at MIT. The successful candidate would have the opportunity of participating in an active teaching program in epidemiology as well as in the joint research program. The appointment would be for a term of 3 years with the possibility of reappointment. Applications should be addressed to: **Brian MacMahon, M.D., Department of Epidemiology, Harvard School of Public Health, 677 Huntington Avenue, Boston, Mass. 02115**.

An appointment will be made as soon as feasible.

Harvard School of Public Health is particularly interested in learning of qualified women and members of minority groups.

Harvard is an Affirmative Action Employer.

ASSISTANT PROFESSOR, PATHOLOGY

Applications are invited for a tenure-track position in the newly reorganized and expanding Department of Pathology, Division of Biology and Medicine at Brown University. Candidates (M.D., D.V.M. and/or Ph.D.) must have a minimum of 2 years of postdoctoral or residency training. The successful candidate is expected to participate in the teaching of systemic pathology to medical students and to establish an independent research program oriented to the study of disease pathogenesis at the cellular or molecular level. Candidates should also be capable of teaching special topics in pathology to undergraduate and graduate students. A part-time appointment in anatomic or clinical pathology can be arranged at a Brown University-affiliated hospital for suitable candidates.

Please send curriculum vitae, a description of research plans and career objectives, and the names of three references to: **Dr. Nelson Fausto, Chairperson, Department of Pathology, Division of Biology and Medicine, Brown University, Providence, R.I. 02912**. *We encourage applications from women and minority candidates. Brown University is an Equal Opportunity/Affirmative Action Employer.* Deadline for applications: 15 December 1983.

ASSISTANT PROFESSOR OF PHYSICAL CHEMISTRY. A tenure-track position is available for September 1984 at the assistant professor level. The department wishes to fill this position with an experimental physical chemist. Preference will be given to candidates with research interests in the modern spectroscopy of molecules. Individuals are sought with the potential for combining excellence in teaching with an innovative research program. Applications will be accepted up to 15 December 1983. Send résumé, three letters of recommendation, and summary of research plans to: **Dr. T. P. Fehlner, Department of Chemistry, University of Notre Dame, Notre Dame, Indiana 46556**. *The University of Notre Dame is an Equal Opportunity/Affirmative Action Employer.*

Position for Ph.D.—**BIOCHEMIST:** Postdoctoral or assistant medical research professor; experience in collagen-connective tissue structure, immunochemistry, cell culture techniques. Salary dependent on previous experience. Send curriculum vitae and references to: **Jon I. Scheinman, M.D., c/o Department of Pediatrics, Box 2925, Duke University Medical Center, Durham, N.C. 27710**. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY—Temple University of the Commonwealth System of Higher Education. Applications are invited for a tenure-track position. Describe your ability to develop a strong research program, and your teaching interests and experience. Send curriculum vitae, including names of three references and a statement of current and planned research, to: **Dr. John R. Williams, Chairman—Search Committee, Department of Chemistry, Temple University, Philadelphia, Pennsylvania 19122**.

POSITIONS OPEN

QUEEN'S UNIVERSITY DEPARTMENT OF PHYSIOLOGY

A vacancy exists for an assistant professor of physiology with particular competence in endocrinology and whose research interests are directed towards neuro- or molecular endocrinology. The applicant should have the Ph.D. and/or M.D. degree with at least 2 years of postdoctoral experience, and will be expected to develop an active research programme and to participate in the undergraduate and graduate teaching of the department. The position will be available on appointment. *In accordance with Canadian immigration requirements priority will be given to Canadian citizens and permanent residents.* Applicants should submit a curriculum vitae, a brief statement of research interests and objectives, selected reprints, and the names of three referees from whom confidential assessment of research and teaching abilities may be obtained to: **Dr. D. B. Jennings, Chairman, Search Committee, Department of Physiology, Queen's University, Kingston, Ontario, Canada K7L 3N6**.

BIOLOGICAL OCEANOGRAPHER. Applications are invited for a 12-month, tenure-track position as assistant professor in the College of Oceanography, Oregon State University. The applicant must have demonstrated ability to conduct independent research and obtain research funding in the area of marine zooplankton ecology. Workers with interests in zooplankton ecology, general biology, systematics and/or pelagic ecosystem theory will be considered. Applicant must have a Ph.D. in biological oceanography. Postdoctoral experience desirable.

The appointee will be expected to teach courses in general biological oceanography and in the ecology of marine zooplankton, to supervise graduate students, and to develop a program of grant-funded research. Salary: \$27,000 to \$35,000 negotiable. Application material, including a brief statement of research plans and the names of three references, should be submitted not later than December 31 1983 to: **Dr. G. Ross Heath, Dean, College of Oceanography, Oregon State University, Corvallis, Oregon 97331**. *An Affirmative Action/Equal Opportunity Employer.*

CHAIRMAN, COMPUTER AND ELECTRONICS DEPARTMENT

The Armed Forces Radiobiology Research Institute is seeking an individual to serve as chairman of the Computer and Electronics Department. This Institute, a command of the Defense Nuclear Agency, is the principle radiobiology research laboratory for the Department of Defense. The chairman supervises approximately 25 employees involved in instrumentation design, software design, and biomedical and electronic equipment maintenance. The chairman is responsible for directing the design and development of electronic and computer devices which advance radiobiology research; for developing advanced equipment for the capture, conversion, and transmission of data; and for designing instrumentation systems. Mandatory qualifications include knowledge of high-level programming languages, hardware interfacing, instrumentation system design, principles of software engineering, and management experience. A desirable qualification is a Ph.D. in a physical, biological, or computer science. This Civil Service position is available immediately. Salary ranges from \$41,277 to \$53,661. Direct inquiries to: **Vince Ackermann at 202-295-1426**. Submit application, including SF-171 and curriculum vitae, by 30 November 1983 to: **The Armed Forces Radiobiology Research Institute, Civilian Personnel Office, Bethesda, Md. 20814**. Reference: announcement number 43/83. *An Equal Opportunity Employer.*

CLINICAL PATHOLOGY. The Department of Pathology at University of California, Los Angeles School of Medicine, has positions available for director of blood bank and director of microbiology and for junior faculty positions in hematopathology and clinical chemistry to begin on or before 1 July 1984. Qualifications include an M.D. degree, certification in clinical or specialty pathology or equivalent experience, demonstrated research ability, and potential for development of an independent research program. Applications, including curriculum vitae summary of research interests and names and addresses of four references, should be sent to: **P. A. Cancilla, M.D., Chairman, Department of Pathology UCLA School of Medicine, Los Angeles, California 90024**. *UCLA is an Equal Opportunity/Affirmative Action Employer. Minority and women candidate are encouraged to apply.*

Research Biochemist

Merck Sharp & Dohme Research Laboratories, a world leader in the development of pharmaceuticals and biological products, is currently offering an excellent career opportunity for a Research Biochemist in the Biochemical Endocrinology group. The individual will be responsible for the maintenance of a tissue culture facility of primary and transformed cell lines as well as hybridoma cultures.

Candidates must have an M.S. degree in one of the biological sciences with a strong background and extensive experience in tissue culture. Experience with a variety of tissue culture systems and in production of monoclonal antibodies is essential. Familiarity with standard immunological techniques, radioimmunoassay procedures, protein purification and primary tissue culture are highly desirable.

Salary, benefits and career growth potential are excellent. Send resume to: Ms. Mary C. Habbersett, RB,



MERCK & CO., INC.

P.O. Box 2000, Rahway, N.J. 07065

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Post-Doctoral Fellowship

SYNTEX RESEARCH has an immediate opening for a POST-DOCTORAL SCIENTIST to join a research team studying inhibition of Cancer Metastasis. Our research emphasis is placed on novel and innovative approaches, and the successful candidate will be involved in mechanistic studies concerning these strategies.

Interaction with other scientists within the multi-disciplinary research environment at SYNTEX is expected, which will provide the Fellow with excellent opportunities to maximally benefit from this post-doctoral experience. In addition, interaction with the scientific community is also encouraged, and our location in the close vicinity of Stanford University facilitates this aspect. Publication is, of course, anticipated.

Applicants should have a PhD in biochemistry or biology or equivalent and 0-3 years' post-doctoral experience. Post-doctoral positions are for one year's duration, renewable for a second year by mutual consent.

SYNTEX is located on the beautiful San Francisco Peninsula and offers excellent benefits and compensation, including relocation expenses. Please send C.V. and names of three references to: Institute of Bio-Organic Chemistry, Attn: M. Bergstrom, Syntex Research, 3401 Hillview Avenue, Palo Alto, CA 94304. We are an equal opportunity employer.



Research Scientists

Gilford Instrument Laboratories, Inc., Oberlin, Ohio, a subsidiary of Corning Glass Works, has immediate openings for Scientists in our R & D department.

Responsibilities include research and development of Clinical chemistry reagents and immunoassays for diagnostic use.

Qualified candidates will have a Ph.D in Biochemistry or related area with 0-2 years post doctoral or industrial experience. A strong analytical background and familiarity with enzyme and immunoassay techniques are desired.

We offer competitive salaries and fringe benefits. Please send curriculum vitae (principals only) in confidence to:

Personnel Department

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An Equal Opportunity Employer M/F/H/V

NEW CAREER OPPORTUNITIES

MICROBIOLOGY

Difco Laboratories, an international company and leader in the field of microbiological reagents, invites qualified microbiologists to join our management team. The individuals we are seeking will have a degree(s) in microbiology or related sciences and practical experience in microbiology. Successful candidates will have an inquiring/investigative mind, be results oriented, and be able to motivate others.

PRODUCT MARKETING SPECIALIST—BACTERIOLOGY: Qualified candidates will have a B.S. or M.S. degree in microbiology plus 2-4 years of practical experience. Responsibilities include coordinating new product development with R&D scientists, market research, and technical training. Product knowledge and good communication skills are necessary.

MANAGER, R&D IMMUNOLOGY LABORATORY: Ph.D. in immunology, immunochemistry or closely related science with a minimum of 4-6 years postdoctoral experience. Responsibilities include supervision of hybridoma/monoclonal development and research on diagnostic products for the clinical immunology and medical microbiology laboratory. Background in protein chemistry with clinical and/or commercial experience is desirable.

SCIENTIST, R&D CULTURE MEDIA LABORATORY: Ph.D. in microbiology, or M.S. in microbiology with 3-5 years appropriate post degree experience. Responsible for conducting independent research leading to the development of new diagnostic products. Background in taxonomy and/or clinical microbiology highly desirable.

Send resume/transcript/C.V. to the attention of
**L. M. Skrycki, Difco Laboratories, P.O. Box 1058,
Detroit, MI. 48232**

Equal Employment Opportunity

POSITIONS OPEN

MENTAL RETARDATION RESEARCH CENTER (MRRC), University of California, Los Angeles (UCLA). Applications are invited for an **ASSISTANT PROFESSORSHIP**. Candidates should have research interests in developmental neurobiology of the central nervous system with emphasis on molecular biology, pharmacology, or immunohistochemistry. Submit curriculum vitae and three references by 1 December 1983 to: **Developmental Biology Committee, c/o Director, MRRC, 760 Westwood Plaza, Los Angeles, Calif. 90024. UCLA is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR OF NEUROSCIENCE

A tenure-track position will be available in the Department of Neuroscience, University of Florida College of Medicine, fall 1984. Applicants should be able to establish a strong independent research program and will be expected to teach neuroscience to graduate and medical students. Preference will be given to individuals with two or more years of postdoctoral experience. Research expertise should be in the area of cellular and molecular neurobiology, with demonstrated facility in cell culturing procedures. Applicants should send curriculum vitae, a summary of research interests, and names of three references before 1 January 1984 to: **Dr. Marieta B. Heaton, Department of Neuroscience, University of Florida College of Medicine, Box J-244, J. Hillis Miller Health Center, Gainesville, Florida 32610.**

The University of Florida is an Equal Opportunity/Affirmative Action Employer.

TEACHING POSITION IN BOTANY SUMMER OR FALL 1984

Delta State University

A botanist is being sought to teach general botany, plant physiology, and other courses including perhaps a course in non-vascular plants. A Ph.D. is required but the successful applicant need not be a plant physiologist. TEM experience desired. Delta State is a small state university (enrollment about 3000) emphasizing teaching. Research is given modest encouragement but is not required. The department offers strong training for pre-medical and environmental science majors, with field trips for the latter given good support. A master of science with a thesis option is offered. Salary and rank dependent on training and experience. Applications accepted until 30 November 1983.

Send letter of application, curriculum vitae, and transcripts, and have four letters of evaluation sent to: **Robert Stewart, Department of Biological Sciences, Delta State University, Cleveland, Miss. 38733. An Affirmative Action/Equal Opportunity Employer, M/F.**

CELL BIOLOGY—The University of California at San Francisco (UCSF) seeks a head of a newly formed Division of Cell Biology, to be hired at the rank of professor or associate professor. The person chosen should be recognized for creativity and productivity in research in cell biology, and should possess the skills, enthusiasm, and leadership qualities required to direct an interdepartmental, interdisciplinary program of research and teaching. The division will include faculty from the Departments of Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, and Physiology, and will be administratively sponsored by the Department of Pharmacology. The head will supervise an interdepartmental degree program in cell biology, and will recruit new faculty. The appointment can begin on or after 1 July 1984. The cut-off date for applications will be 31 January 1984. Applicants should send curriculum vitae and names and addresses of three references to: **Henry R. Bourne, M.D., Chairman, Department of Pharmacology, Room S-1210, University of California, Third and Parnassus Avenues, San Francisco, Calif. 94143.**

UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

CELLULAR IMMUNOLOGIST. Tenure-track position, assistant professor level, starting September 1984. Teaching duties: Undergraduate lecture course in microbiology annually and graduate course in cellular immunology in alternate spring semesters. Expected to develop independent research program and supervise graduate students. Send curriculum vitae, statement of research plans, and names of four references to: **Dr. Peter Abramoff, Biology Department, Marquette University, Milwaukee, Wis. 53233. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

CELLULAR IMMUNOLOGISTS. One position to study the genetic control of hybrid resistance to murine plasmacytomas. Other position studies the migration and regulation of IgA B cells in the mouse mucosal immune system. Candidates should have recent Ph.D. with strong background and publication records in cellular immunology. Send curriculum vitae, bibliography, and names of three references to: **Dr. Julia Phillips-Quagliata, Pathology Department.**

POSTDOCTORAL POSITION available to study genetic and molecular aspects of recombination in yeast. Some knowledge of genetics and experience with recombinant DNA techniques desirable. Send curriculum vitae and names of three references to: **Dr. Hannah Klein, Biochemistry Department.**

New York University Medical Center, 550 First Avenue, New York, N.Y. 10016. An Affirmative Action/Equal Opportunity Employer, M/F.

Michigan State University invites nominations and applications for the **CHAIRPERSON** of Department of Animal Science. An earned doctorate in animal science, dairy science, poultry science, or related discipline is required. Experience in research, teaching, or extension is desired. Candidates must possess potential administrative leadership to assist in development and growth of faculty and programs of animal science. Position available 1 March 1984. Closing date for applications is 31 January 1984, or until a suitable candidate is found. A letter of application, résumé, and four letters of reference should be sent to: **Dr. H. Allen Tucker, Search Committee Chairperson, Department of Animal Science, 230 Anthony Hall, Michigan State University, East Lansing, Mich. 48824-1225. Michigan State University is an Equal Opportunity/Affirmative Action Employer.**

RENEWED SEARCH CHAIRPERSON AND CELL BIOLOGIST

HAMILTON COLLEGE, a highly selective coeducational liberal arts college with 1625 students and 135 faculty, seeks a cell biologist with a solid record of research achievement, preferably in molecular genetics or a related field, to assume the chair of its eight-member Biology Department 1 July 1984. Candidates must be devoted to the teaching of talented undergraduates and expect to maintain an active research program that will involve students. A demonstrated capacity for leadership is essential since future hiring opportunities and strong institutional backing will give the new chairperson an exciting opportunity to develop an outstanding small college department. Applications and nominations should be submitted by 30 November to: **Professor Peter J. Millet, Associate Dean of the College, Hamilton College, Clinton, N.Y. 13323. Hamilton College is an Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.**

CLINICAL/COMMUNITY NUTRITION. Assistant professor, tenure-track position available 1 September 1984. Ph.D., R.D. required. Teach graduate and undergraduate courses in nutritional aspects of disease, community nutrition, world food customs, and so forth. Direct ADA Plan IV Program. Conduct vigorous research program. Advise graduate students. Opportunities for association with community agencies and clinical facilities. Participate in department activities, including curriculum development. Send résumé, transcripts, and interests to: **Chair, Search Committee, Department of Home Economics, Cook College, Rutgers University, New Brunswick, New Jersey 08903. Deadline: 1 January 1984 or until position is filled. An Equal Opportunity Employer.**

ECOLOGIST

ASSISTANT PROFESSOR. Tenure-track position available 1 January 1984 with appointment to 30 June 1985. Hamilton College seeks a biologist to teach introductory biology (emphasis on animal organization and physiology) in the spring term and ecology in the fall term. Candidate sought preferably with Ph.D., teaching experience, and demonstrated interest in undergraduate education and expect to maintain an active research program that will involve undergraduates. Applications should be received by 10 November and include curriculum vitae, transcripts, the names of three references. Send résumé to: **Professor E. C. Putala, Chairman, Biology Department, Hamilton College, Clinton, N.Y. 13323.**

Hamilton College is an Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF BIOLOGY

The Department of Biology at Clark University is seeking a chairperson. A senior investigator with an active, funded research program is sought who will provide dynamic leadership for the department and who will strengthen ongoing research activities and graduate training. Preference will be given to someone in the area of eukaryotic molecular biology; applications from animal physiologists are also invited.

The Biology Department has ten faculty members and provides graduate training leading to the M.A. and Ph.D. degrees. The department participates in the Worcester Consortium Biomedical Ph.D. Program with the University of Massachusetts Medical School, the Worcester Foundation for Experimental Biology, and Worcester Polytechnic Institute. A new science building is under construction and is expected to be completed in 1984. Salary is competitive.

Application deadline is 15 December 1983. Send letter of application, résumé, and names and addresses of three references to: **Chairperson Search Committee, Department of Biology, Clark University, 950 Main Street, Worcester, Mass. 01610. Clark University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.**

CHAIRMAN, DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY. Texas College of Osteopathic Medicine (TCOM) is seeking a professor and chairman for the Department of Microbiology/Immunology. Candidate should be a recognized leader in the field with established research accomplishments, teaching experience in a medical college, and adequate administrative abilities. Applications and nominations should be sent to the chairman of the Search Committee: **Dr. Harbans Lal, Department of Pharmacology, Texas College of Osteopathic Medicine, Fort Worth, Texas 76107. TCOM is a state medical school under the Board of Regents of North Texas State University, is located in cultural/recreational area of Dallas-Fort Worth Metroplex, and is an Equal Opportunity/Affirmative Action Employer.**

COMPARATIVE VERTEBRATE PHYSIOLOGIST UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Developmental and Cell Biology is recruiting for a position in comparative vertebrate physiology at the assistant, or beginning associate professor level. Fields of interest include respiratory physiology, muscle physiology, adaptational biochemistry, and comparative endocrinology. The candidate is expected to establish a productive research program and to participate in an ongoing program of graduate teaching responsibilities in vertebrate physiology. The candidate must have Ph.D. degree and postdoctoral experience is desired. Applicants should submit a curriculum vitae with copies of publications and should request that three letters of recommendation be sent to: **Chair, Comparative Physiology Search Committee, Department of Developmental and Cell Biology, University of California, Irvine, Calif. 92717. Deadline for receipt of the applications is 30 November 1983. The University of California is an Affirmative Action/Equal Opportunity Employer.**

COORDINATOR

Résumés are invited for the position of Coordinator of AID Local Crop Storage Project in Rwanda, East Central Africa.

Qualifications: M.S. in agriculturally related discipline required; Ph.D. desired. Candidate must have a minimum of 3 years of professional experience managing research and/or development projects in Africa; demonstrated ability to communicate effectively in a crosscultural setting; and French proficiency at an FSI level of S-3, R-3, with demonstrated ability to prepare written reports in French.

Salary: commensurate with experience.

Applicants should send résumé and three letters of reference to:

**Dr. Leland Hardman
203 Agronomy, 1509 Gortner Avenue
University of Minnesota
St. Paul, Minn. 55108**

by 7 November 1983.

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

NEW FISHERIES-RELATED POSITIONS AT LOUISIANA STATE UNIVERSITY'S CENTER FOR WETLAND RESOURCES

Under a newly established Fisheries Initiative Program, it is anticipated that the following positions will be created:

1. Assistant Professor (Fisheries science/advisory services)
2. Assistant/Associate Professor (Fisheries law—LL.M or J.D.)
3. Assistant/Associate Professor (Marine biology/ichthyoplankton)
4. Associate Professor/Professor (Fisheries development)
5. Associate Professor/Professor (Resource economics—fisheries)
6. Associate Professor/Professor (Fisheries dynamics/stock assessment)

The program will focus on research, management and development problems pertaining to Louisiana's established and underutilized marine fisheries. With the exception of the fisheries law position, all openings require the Ph.D. and post-award experience. Preference will be given candidates with knowledge and experience concerning species, fisheries or conditions in—or analogous to—the northern Gulf of Mexico. A minimum of four positions will be filled and position selection will be based in part on the relative quality of the applicant pools.

Research associate positions will also be established to support the filled professorial positions. It is anticipated that these openings will be in the fields of (1) fisheries economics, (2) fisheries biology (nekton) and (3) fishing systems. Candidates should have a M.S. degree in fisheries or a related field. Familiarity with Gulf Coast fisheries problems is desirable as are computer literacy and knowledge of applied statistics.

By 30 October 1983, send resume, names of three confidential references, salary requirements and indication of appointment availability to: **Dr. Jack R. Van Lopik, Dean, Center for Wetland Resources, Louisiana State University, Baton Rouge, LA 70803-7500. Phone: 504/388-1558 or 6710.** Louisiana State University is an Equal Opportunity Employer.

CHEMISTS

We are a Fortune 500 company with the following openings:

ASSOCIATE RESEARCH SCIENTIST

Primary work will be in synthesis and identification of natural components. We are seeking a person who has a Ph.D. in Bio-Chemistry, along with research experience in carbohydrate and lipid chemistry. A minimum of one year of postdoctoral experience is preferred.

ASSOCIATE TECHNOLOGIST

Primary work will be in the area of alteration of raw materials and conducting enzymatic and immunological research. We are seeking a person who has an M.S. in Bio-Chemistry or related science and related research or work experience. A B.S. in Bio-Chemistry or related degree with a minimum of two years of related experience will be considered.

Salary, benefits and relocation assistance are competitive. If qualified, please send inquiry in confidence to:

Box 290, SCIENCE

An Equal Opportunity Employer
M/F/V/H

PHARMACEUTICALS R&D

U.S. subsidiary of ICI (England) who introduced the first beta blocker, clonidine, halothane, tamoxifen citrate and chlorhexidine. Current and planned programs in pre-clinical research have created new openings.

BIOANALYTICAL CHEMIST - BS/MS in analytical chemistry to join Drug Metabolism section. Will develop methodology to determine concentration of potential candidates isolated from biological fluids, validate assay procedures, make pharmacokinetic interpretations, confirm identity of component, utilize computers for data reduction. Expected to communicate ideas effectively and write reports clearly and concisely.

PHARMACOLOGISTS - BS/MS candidates to work in these laboratories:

- **Autonomic** - To assist in development of in-vitro tests utilizing isolated tissue preparation for characterization of pharmacological activity. Familiarity with receptor pharmacology preferred.
- **CNS** - To perform routine to complex tests on small animals, including primates. Experience should demonstrate competence in operant behavioral technique.
- **Neurochemical** - Training in biology or chemistry with experience in neurobiology to work on receptor binding techniques in interdisciplinary approach to novel entities. HPLC familiarity highly desirable.

Modern laboratories in suburban campus setting 25 miles south of Philadelphia. Competitive salaries/benefits include tax-sheltered investment program. Please submit full CV. Principals only.

CHAS. T. BRODIGAN
Employee Relations

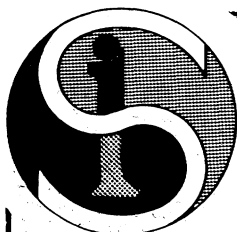


STUART PHARMACEUTICALS

Division of ICI Americas Inc.

Wilmington, DE 19897

An Equal Opportunity Employer M/F



L'Institut de Recherches SERVIER

est mondialement connu pour avoir découvert des **MEDICAMENTS** qui sont prescrits sur les cinq continents.

La diffusion de nos spécialités est réalisée pour **MOITIÉ** à l'**EXPORTATION** à partir de la **FRANCE** où se trouve l'**essentiel** de nos Unités de Recherches et de production.

Notre **FORTE EXPANSION** nous permet d'accroître notre potentiel de recherches.

Nous souhaitons accueillir :

- pour un **Centre de Recherches à créer** (lieu d'implantation à préciser avec le futur Responsable) :

**Directeur de centre
de recherches** 6229 A
(Chimie et Pharmacologie)

- pour le **Centre de Recherches existant à SURESNES (France) :**

**Directeurs
de départements
en pharmacologie** 6229 B

- orientés en :
- Rhumatologie
 - Maladies veineuses
 - Neuro-psychopharmacologie

Une réelle motivation à travailler dans l'industrie privée est nécessaire, mais elle permet la réalisation d'objectifs ambitieux compte-tenu des moyens mis à la disposition de nos chercheurs.

Veuillez envoyer C.V. + lettre manuscrite (rédigés en Français) + photographie, sous la référence choisie, au **Conseiller en Relations Humaines de l'Institut de Recherches SERVIER**, 11 rue des Moulineaux 92150 Suresnes (France).

- pour le **Centre de Recherches existant à SURESNES (France)**

**Cadres de recherches
en pharmacologie** 6229 C

spécialisés en :

- Pneumologie
- Electrophysiologie (appliquée à la Cardiologie)

**Cadres
de recherches** 6229 D

spécialisés en :

- Chimie Organique
- Micro-analyse élémentaire + absorption atomique et éventuellement méthodes d'analyse thermique.

POSITIONS OPEN

DEAN, SCHOOL OF ALLIED HEALTH PROFESSIONS UNIVERSITY OF WISCONSIN-MADISON

Applications and nominations are sought for position of Dean, School of Allied Health Professions, University of Wisconsin-Madison. Programs in medical technology, occupational therapy, physical therapy, and physician assistant.

Qualifications: Earned doctorate in school program area or related field; scholarly achievement with evidence of creative contributions to qualify for tenured professorship in school faculty. Administrative experience desired. Licensed/certified to practice in Wisconsin or eligible for such if applicable.

Available 1 July 1984. Salary open and competitive.

The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and encourages applications from members of minority groups.

Applications with supporting materials and letter of nominations should be sent by 15 January 1984 to:

Dean August P. Lemberger
Chair, School of Allied Health Professions Dean
Search and Screen Committee
c/o Office of Secretary of the Faculty
134 Bascom Hall
University of Wisconsin-Madison
500 Lincoln Drive
Madison, Wisc. 53706

DEVELOPMENTAL BIOLOGIST. Assistant professor, tenure-track. Preference will be given to candidates with postdoctoral experience investigating the cellular and/or molecular basis of animal or plant development. Applicants should forward curriculum vitae, reprints, manuscripts, a brief résumé of research plans, and should arrange to have four letters of reference sent to: **Chairman, Developmental Biology Search Committee, Department of Biology 046A, University of North Carolina, Chapel Hill, N.C. 27514.** Applications received after 1 December 1983 cannot be assured of consideration. *The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

THE HELLENIC ANTICANCER INSTITUTE invites applications for the post of **DIRECTOR** of its Research Centre comprising Biochemistry, Biology, Cell Physiology, and Immunology Departments.

Candidates must have proven experience in cancer research and ability to develop their own research projects.

Applications should be accompanied by detailed curriculum vitae, a summary of proposed research projects, and the names of three referees and should reach: **The Hellenic Anticancer Institute, 171 Alexandras Avenue, Athens, Greece,** not later than 30 November 1983. The appointment, originally for 3 years, will be renewable and will carry a Greek university professorial salary.

The University of Michigan Department of Otorhinolaryngology has an open **FACULTY POSITION**. Responsibilities will include patient care, medical student teaching, and house officer education; should have a particular interest and aptitude in pediatric otolaryngology, and preferably have completed a fellowship in same; will also be expected to engage in basic or clinical research; could possibly have some duties at VA and Wayne County General Hospital. Mail responses to: **Charles J. Krause, M.D., Professor and Chairman, Department of Otorhinolaryngology, C-6043 Outpatient Building, University of Michigan Hospital, Ann Arbor, Michigan 48109.** A nondiscriminatory, Affirmative Action Employer. Code 17FO.

MICROBIOLOGIST. Tenure-track position available at the assistant professor level starting September 1984. Applicant should have a specialization in one or more of the following: molecular microbiology, microbial genetics, medical microbiology, or bacterial physiology. Ph.D. required with postdoctoral experience desirable. Successful applicant will be expected to teach general microbiology, medical microbiology, and a course in his/her specialty. The development of an active and competitive research program involving master's level graduate students is expected. Applicants should send curriculum vitae, brief descriptions of teaching and research goals, and three letters of reference to: **Dr. Dale Jackson, Chairman, Department of Biology, University of Akron, Akron, Ohio 44325.** Deadline: 18 November. *The University of Akron is an Equal Education and Employment Institution.*

POSITIONS OPEN

CLINICAL IMMUNOLOGIST. The Department of Pathology, Case Western Reserve University School of Medicine, and University Hospitals of Cleveland has an opening for a **director** of its clinical immunology laboratory. The director should foster close interactions with the clinical services, supervise the training of residents, and develop an independent program of high quality clinical or basic research. Experience and interest in cell sorting advisable. Facilities are excellent. Salary and rank (tenure or tenure-track) commensurate with experience and qualifications. The new director will later participate in the choice of a junior, tenure-track associate. In applying, send curriculum vitae, bibliography, selected reprints, names of three references, and a brief statement of experience and future research plans to: **Michael E. Lamm, M.D., Director, Institute of Pathology, Case Western Reserve University, 2085 Adelbert Road, Cleveland, Ohio 44106.** An Equal Opportunity/Affirmative Action Employer.

ECOLOGIST. Assistant professor, tenure track. Preference will be given to candidates with broad ecological background, expertise in ecosystem function and postdoctoral experience. Applicants should forward curriculum vitae, reprints, manuscripts, a brief résumé of research plans, and should arrange to have four letters of reference sent to: **Chairman, Ecology Search Committee, Department of Biology 010A, University of North Carolina, Chapel Hill, N.C. 27514.** Applications received after 1 December 1983 cannot be assured of consideration. *The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

The Division of Nutritional Sciences in the School of Public Health is seeking a **SENIOR FACULTY MEMBER** for a tenured position. The person selected will be a strong candidate to become head of the division perhaps during the 1984-1985 academic year. Candidates for this position should hold the Ph.D., Dr.P.H., or M.D. degree with advanced training and accomplishments in nutrition, biochemistry, or other areas related to nutrition. The individual selected would be expected to have demonstrated competence in teaching and research and will be expected to assume leadership for the overall nutrition program which includes both the laboratory and applied aspects of human nutrition.

Salary and rank are commensurate with the training and experience of the candidate. *The University of California at Los Angeles is an Equal Opportunity Employer and encourages applications from women and minority representatives.*

Send résumé to: **R. B. Alfin-Slater, Ph.D., Professor of Nutrition, School of Public Health, University of California, Los Angeles, Calif. 90024.**

FACULTY POSITION, CLINICAL MICROBIOLOGY-IMMUNOLOGY LABORATORIES

Associate director of the Clinical Microbiology-Immunology Laboratories, North Carolina Memorial Hospital, with responsibility for direction of the clinical bacteriology section of the laboratory. Position includes an appointment as assistant or associate professor in the Departments of Microbiology and Immunology and of Pathology at the University of North Carolina at Chapel Hill. M.D. and/or Ph.D. degrees with training in either clinical microbiology, clinical pathology, or both. Experience in bacteriology and Board certification (or Board eligibility) by the ABMM and/or ABP is required. The candidate will be expected to develop a productive research program in microbiology and to teach clinical microbiology to medical students, residents, and postdoctoral fellows. *We encourage applications from and nominations of minority and female candidates: such persons may identify themselves voluntarily.* Candidates should submit curriculum vitae and the names and addresses of three references to: **Director, Clinical Microbiology-Immunology Laboratories, Department of Hospital Laboratories, North Carolina Memorial Hospital, University of North Carolina, Chapel Hill, N.C. 27514.** Applications will be accepted until 2 December 1983. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL ASSOCIATE—Biochemist is sought, preferably with interest in enzymology and chemical modification of proteins. The 2-year position, with possibility for renewal, is available immediately at an annual salary of \$18,500. A complete application requires résumé, transcripts, and three letters of reference sent to: **Dr. Fred C. Hartman, University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, P.O. Box Y, Oak Ridge, Tennessee 37830.**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

JUNIOR FACULTY POSITION

The Psychiatry Section in the Department of Psychiatry at the University of Michigan has a junior level faculty opening in the Child Psychiatry Service. This position requires that applicants must have a Ph.D. from an APA approved clinical program and be eligible to be fully licensable in the state of Michigan. The applicant must be qualified to carry out and supervise psychodynamically oriented treatment and diagnostic assessment as well as have a demonstrated commitment to programmatic research in a relevant area of child psychiatry. A background in the inpatient treatment of children is necessary for this position. Experience also in family therapy is desirable. Ongoing programmatic research may be actively supported with research assistant help. There is a broad range of research interests and efforts actively represented in the Psychiatry Department and more broadly in the University community with abundant opportunities for collaborative work. This position is available as of 1 July 1984, with a base salary of \$28,500, commensurate with level of appointment. Please submit curriculum vitae, several recent reprints, preprints and/or manuscripts, and three letters of reference to: **Chairperson, Search Committee, Psychology Section, Box 52, University of Michigan Medical Center, Ann Arbor, Michigan 48109.** *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

FACULTY AND POSTDOCTORAL POSITIONS

Two positions are open currently and one effective 1 July 1984 for psychiatrists with active research in neurochemistry, neuropharmacology, electrophysiology, clinical electroencephalography, or clinical psychopharmacology. Salary and rank depend on qualifications. One postdoctoral position is open for 1 or 2 years to study electrophysiology and neurochemistry. Applicant should have M.D. or Ph.D. with experience in neurochemistry, electrophysiology, and study of behavior. Send curriculum vitae and letters of research interests by 1 December to: **Robert E. Becker, M.D., Professor and Chairman, Department of Psychiatry, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Ill. 62708.** *An Equal Opportunity/Affirmative Action Employer.*

TWO POSITIONS GENETICIST AND NEUROBIOLOGIST CARLETON COLLEGE

The Biology Department at Carleton College is reopening its search for a **molecular eukaryotic geneticist** and a **neurobiologist**. Applications are invited for the tenure-track positions at the assistant professor level available September 1984. In the geneticist's position we are seeking an individual who will teach an upper division course in genetics, a course related to his/her specialty, and one-half of an introductory course in genetics-bioenergetics. In the neurobiologist's position we are seeking an individual who will teach an upper division course in neurobiology, a lower division course to be agreed upon, and participate in the laboratories of the introductory course. The applicants' areas of expertise will be important in the selection. The department is interested in persons with a commitment to teaching and research in the context of a liberal arts college. Applicants must have a Ph.D., and postdoctoral training is advantageous. Applications, including curriculum vitae, undergraduate and graduate transcripts, a summary of research goals, and three letters of professional recommendation should be sent to: **Professor G. J. C. Hill, Chairman, Department of Biology, Carleton College, Northfield, Minn. 55057,** by 1 December 1983. *Carleton College is an Equal Opportunity/Affirmative Action Employer.*

IMMUNOLOGIST/PARASITOLOGIST. The Department of Pathology, Case Western Reserve University School of Medicine, has a tenure-track opening for research in **AMEBIASIS**. Excellent opportunities for collaboration with immunologists and parasitologists. Background in amebiasis not necessary if the applicant has other appropriate qualifications in immunology and/or parasitology and is willing to make a major commitment in this area. Salary and rank commensurate with experience. In applying, send curriculum vitae, bibliography, selected reprints, names of three references, and a brief statement of accomplishments to: **Michael E. Lamm, M.D., Director, Institute of Pathology, Case Western Reserve University, 2085 Adelbert Road, Cleveland, Ohio 44106.** *An Equal Opportunity/Affirmative Action Employer.*

LEADER, ATMOSPHERIC TRACE GAS SAMPLING AND ANALYSIS GROUP

Ames Research Center (35 miles south of San Francisco) is seeking a senior investigator and group leader for the atmospheric trace gas measurement team charged with making major advances in understanding atmospheric composition and processes, including atmospheric biogeochemical cycles. Advanced research instruments are flown on aircraft, and sampling strategies and constituents are selected to address specific problems, such as stratospheric-tropospheric exchange, the composition of the natural and perturbed troposphere, atmosphere-biosphere interactions, and the role of precursor gases in the evolution of climatically significant aerosols.

Specified qualifications include: 1) Ability to advance, advocate, and defend programs (double-weighted). Ability to motivate, develop, evaluate, and recruit subordinates (double-weighted). Knowledge of current theories regarding important atmospheric chemistry problems and the relevance of measurements to these theories (double-weighted); 2) Ability to direct and conduct all phases of research projects that advance the state of knowledge of atmospheric chemistry; 3) Ability to design and develop state-of-the-art trace gas sampling/sensing instrumentation within cost and time constraints; 4) Skill in communicating schedules, plans, scientific goals, and operational constraints involved in flight missions. U.S. citizenship and Ph.D. or equivalent in atmospheric chemistry or one of the space sciences are required. Permanent position in federal service. Salary ranges from \$41,277 to \$63,115 commensurate with experience/education. For further information regarding requirements and application procedures, write 48-83A at the address below or phone (415)965-5084. Formal applications must be filed by March 12, 1984. An equal opportunity employer.



National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, California 94035



MICROBIOLOGIST

This is a short term research position
(approximately 2 years duration)

The Eastern Regional Research Center has an opening for a microbiologist to conduct research on biochemical processes and the genetic regulation of metabolism in microorganisms that have major roles in food processing, nutrition, agricultural productivity and food protection.

This is an excellent opportunity for microbiologists with a knowledge of microbial physiology and metabolism; microbial genetics; immunochemical techniques.

Ph.D. is desirable

Salary is based on qualifications and experience. Salary:

(GS-11) \$24,508 (GS-12) \$29,374

Benefits include a stimulating professional environment and comparable benefits, including relocation expense assistance. Information about the position or qualifications and application forms may be obtained by contacting:

Personnel Office
USDA-ARS-ERRC
600 E. Mermaid Lane
Philadelphia, PA 19118
(215) 233-6573

ALL APPLICATION FORMS MUST BE
RECEIVED BY NOVEMBER 30, 1983

U.S. Citizenship is required
An Equal Opportunity Employer

EXECUTIVE DIRECTOR

Government— University Research Roundtable

The Government—University Research Roundtable, an independent entity established under the aegis of the National Academy of Sciences to enhance the working relationship between the government and universities in supporting and conducting scientific research and training, is seeking a qualified individual to fill the position of Executive Director. The primary duties of the Executive Director will be to develop background information on potential issues; assist members of the Roundtable in establishing its agenda; identify potential Roundtable meeting participants; prepare background briefing papers, summaries of proceedings, and reports; Communicate with sponsors and participating government agencies and universities, and conduct Roundtable administrative affairs, including fiscal management, logistical planning, and recruitment and supervision of staff.

Candidates for this position should have demonstrated knowledge of issues and problems in the government-university partnership in science, experience with research and/or research administration, experience in objective analysis, demonstrated effectiveness in written and oral presentations, and ability to write concise briefs on complex issues. The candidate should have a Ph.D. in science, engineering or public policy, or the equivalent in education and experience.

This is a full-time position with the National Academy of Sciences in Washington, D.C. Please submit a resume to: The Executive Officer:

NATIONAL ACADEMY OF SCIENCES
2101 Constitution Avenue
Washington, D.C. 20418

AN EQUAL OPPORTUNITY EMPLOYER

DIRECTOR, DIVISION OF KIDNEY, UROLOGIC, AND HEMATOLOGIC DISEASES

and Associate Director for Kidney, Urologic, and Hematologic Diseases (dual positions)

The National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases invites nominations and applications for the position of Director, Division of Kidney, Urologic, and Hematologic Diseases (KUHD). The candidate must be internationally recognized within the scientific community as an authority in kidney diseases. In addition, the candidate should demonstrate an interest and a commitment to urologic and hematologic diseases. This Institute conducts, fosters, and supports research and research training in the prevention, management, and cure of arthritis, and related bone and skin diseases, diabetes and related endocrine and metabolic diseases; kidney, urologic and hematologic diseases, and digestive diseases. Programs encompass intramural laboratory research and extramural (grants and contracts) activities in fundamental arthritis, diabetes, digestive and kidney disorders.

The Director, serves as the primary official with responsibility for planning and executing the Institute's extramural programs in kidney, urologic, and hematologic diseases, including: basic and applied research, training fellowships and institutional training awards, multipurpose centers of research, clinical trials, technological development and application of research findings; and collection and dissemination of reliable data and information, budget development, and advising and participating with outside voluntary health organizations and the National Advisory

Council in identifying and assessing the needs and requirements for research and manpower development in categorical diseases. Additionally, the incumbent serves as principal advisor to the Institute Director on matters and policies pertaining to these areas. Also, the incumbent will conduct intramural research projects in the areas of kidney and related diseases.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$56,945 to \$63,800 per annum, depending on qualifications. Currently the payable salary is limited to \$63,800. Physicians may be eligible for an additional comparability allowance up to \$10,000 per year. (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service). Mandatory professional/technical qualifications are a medical degree, or Ph.D. degree in a health or health related science (or equivalent) and research program administration and/or clinical experience in kidney diseases. Further information on these qualifications are available by contacting Syd Carter, Personnel Management Specialist, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, Building 31, Room 9A34, Bethesda, Maryland 20205, (301) 496-4231.

Mandatory managerial/executive qualifications include evidence of management of a basic or clinical research program, demonstrating ability to assume leadership

responsibilities in developing program goals; representing the program to outside groups; directing program planning, execution, and evaluation; and conducting a fair and equitable employment program, including the attainment of EEO objectives.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the degree to which they exceed the mandatory managerial/executive qualifications, and on the following desirable qualifications: scientific reputation/peer recognition, training and education, leadership of a basic or clinical research or research administration program, and honors and awards.

APPLICATIONS (PERSONAL QUALIFICATIONS STATEMENT SF-171) should be sent to Mr. Clifford Moss, Executive Secretary, Search Committee for Director, KUHD, Building 31, Room 9A34, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, Bethesda, Maryland 20205, telephone (301) 496-4231. All applications must be postmarked before November 30, 1983.

A current curriculum vitae and bibliography must accompany all applications. Applications from women and/or minority group members are especially solicited. Department of Health and Human Services Public Health Service National Institutes of Health National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases

AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

FACULTY POSITION IN RADIOPHARMACEUTICS/NUCLEAR PHARMACY

University of Nebraska Medical Center
College of Pharmacy

Applications are invited for a position in radiopharmaceutics/nuclear pharmacy at the assistant professor level. This is a full-time, tenure-track position in the Department of Pharmaceutics of the College of Pharmacy. Principal responsibilities include teaching a course in radiotracer methods, service in the Regional Nuclear Pharmacy, and research.

Applicants should have a M.S. or Ph.D. (desirable) degree in the area of radiopharmaceutics, nuclear pharmacy, bionucleonics, or related area. Applicants must also be eligible for licensure to practice pharmacy in the state of Nebraska.

Interested persons should send curriculum vitae, names of three references, and a summary of their research interests to: **Clarence T. Ueda, Pharm.D., Ph.D., Associate Professor and Chairman, College of Pharmacy, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Neb. 68105.**

The University of Nebraska is an Equal Opportunity/Affirmative Action Employer.

INFORMATION TECHNOLOGY

George Mason University, the State University in Northern Virginia, has made a major commitment to establish itself as a research center for information technology and is seeking a distinguished scientist from academia, industry, or government to provide leadership to this institutional commitment. This scientist will serve as the director of the Center for Information Technology and will be expected to develop this organization into a nationally recognized center for excellence in information technology. A close working relationship with the high technology industry, so heavily concentrated in this geographic area, will be strongly encouraged and supported. The chief executive officers of 20 high technology companies have committed themselves to active support for this center of excellence. In the curricular area, the university will implement a doctoral program in information technology in fall 1985, supported by graduate programs in applied physics, computer and electronic engineering, computer science, information systems, and systems engineering.

A strongly competitive salary and substantial support for equipment and staff will be available to the successful candidate. The complete relocation of his or her research activities to the suburban Washington, D.C., university will be considered. Qualified applicants are invited to send résumés with supporting information by 15 November to: **David J. King, Vice President for Academic Affairs, George Mason University, 4400 University Drive, Fairfax, Virginia 22030.**

MARINE CHEMIST NORTH CAROLINA STATE UNIVERSITY

The Department of Marine, Earth, and Atmospheric Sciences invites applications for a 9-month, tenure-track position at the assistant or associate professor level. The candidate must have a Ph.D. and will be expected to interact with various research programs within the department such as: radiochemistry, stable isotope and trace metal geochemistry, sedimentology, ocean circulation, air-sea interaction, and biological oceanography. Responsibilities include conducting a viable research program as well as teaching and advising graduate students. Applicants should forward a résumé and the names of at least three references to: **Dr. David J. DeMaster, Chairman, Search Committee, P.O. Box 5068, North Carolina State University, Raleigh, N.C. 27650.** Application material should be sent by 30 November 1983. *North Carolina State University is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR GENETICIST/BIOLOGIST. Assistant or associate professor. Research up to 66 percent on molecular genetics of biomembrane antigens, and immunogens of pathogens, particularly *Brucella abortus*; teaching (at least 34 percent) molecular biology of microbial disease. Ph.D. required. Rank and salary commensurate with experience. Send résumé, copy of transcript, addresses of three references, and a statement of research interests to: **Dr. I. R. Tizard, Department of Veterinary Microbiology and Parasitology, Texas A&M University College Station, Texas 77843, telephone: 409-845-5941.**

*An Equal Opportunity through
Affirmative Action Employer*

POSITIONS OPEN

MEDICINAL CHEMISTRY FACULTY POSITION

Assistant or associate professor, University of Michigan, College of Pharmacy. Tenure-track position effective 1 July 1984. Candidates must have Ph.D. in medicinal chemistry, organic chemistry, biochemistry or related discipline plus minimum of 3 years of relevant postdoctoral experience. Position requires teaching in undergraduate and graduate medicinal chemistry and establishing independent, vigorous research program. Detailed résumé, publications list, reprints of three recent publications, description of career goals, proposed research program, and three letters of recommendation must be received by 30 November 1983. Address to: **Dr. L. B. Townsend, Chairman, Search Committee, College of Pharmacy, University of Michigan, Ann Arbor, Mich. 48109-1065. A nondiscriminatory, Affirmative Action Employer.**

MOLECULAR GENETICIST Department of Molecular and Population Genetics UNIVERSITY OF GEORGIA

The University of Georgia is seeking a molecular geneticist for a tenure-track position beginning fall 1984. The exact area of research and academic rank are open, but candidates are expected to pursue an active research program and to teach at both the graduate and undergraduate levels. The Department of Molecular and Population Genetics has 14 faculty members and strong research programs in both molecular genetics and population genetics. Applicants should send curriculum vitae, including representative reprints of publications, a statement of research objectives, and the names of four references to: **Chairman, Molecular Geneticist Search Committee, Department of Molecular and Population Genetics, University of Georgia, Athens, Georgia 30602.** The closing date for applications is 31 December 1983. *The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

University of Washington and Issaquah Health Research Institute MOLECULAR PARASITOLOGY

Applications are invited for **POSTDOCTORAL POSITIONS** in a research program in the laboratories of Dr. N. Agabian and Dr. K. Stuart to investigate the molecular biology of parasites. Individual projects will study protozoan and metazoan parasites but will concentrate on the control of surface antigen gene expression in African trypanosomes. Since these studies involve extensive use of recombinant DNA techniques, experience in this area, while not essential, is preferred. Applicants should indicate their areas of research experience and particular area of interest. Send curriculum vitae along with names and addresses of three professional references by 15 November 1983 to: **Dr. Agabian and Dr. Stuart, Issaquah Health Research Institute, 1595 N.W. Gilman Boulevard, Issaquah, Wash. 98027.**

*Equal Opportunity/Affirmative
Action Employers*

PHARMACOLOGISTS

Two tenure-track faculty positions (12-month appointments) are available at the assistant and/or associate professor level. The research interests of the department are in the areas of autonomic cardiovascular pharmacology, biochemical pharmacology, and neuropharmacology. **Assistant Professor:** Candidates must have 2 to 3 years postdoctoral experience in a research area which would complement the existing research programs within the department. **Associate Professor:** Candidates must have 5 to 7 years experience beyond the doctorate level and an established, externally funded research program. Both positions require participation in teaching at the professional and graduate level in addition to carrying out high-quality independent research. Interested individuals should send a letter of application indicating the position desired, curriculum vitae, and names of three references to: **Dr. Mustafa F. Lokhandwala, Chairman, Department of Pharmacology, College of Pharmacy, University of Houston, Houston, Texas 77004.** The deadline for application is 15 December 1983. *Equal Opportunity Employer.*

POSITIONS OPEN

MICROBIOLOGIST with Ph.D. and/or D.V.M. to head diagnostic murine microbiology laboratory at the Jackson Laboratory. Must have experience in diagnostic virology and serology. Must be able to develop an independent research program. Preference will be given to research areas in molecular virology, immunology, and host-parasite interactions. Laboratory Animal Medicine and Comparative Pathology has two pathologists, a diplomate in L.A.M., a Ph.D. geneticist and eight support technicians, excluding those in histology and electron microscopy. The successful candidate will interact with approximately 40 doctoral level scientists. The Jackson Laboratory maintains over 700 different strains and stocks of mice with a daily census of approximately 1,000,000 animals. Salary and rank commensurate with experience. Please send résumé and names of three references to: **Chairman, Search Committee, The Jackson Laboratory, Bar Harbor, Maine 04609. An Equal Opportunity Employer.**

MICROBIOLOGIST

Tenure-track faculty position as assistant professor to begin fall 1984. Ph.D. required. Duties include teaching undergraduate course in microbiology, sharing responsibilities in undergraduate cell biology and introductory biology courses. New complete modern facilities including SEM and TEM. Immunology, EM, and computer experience desirable. Research encouraged. Salary negotiable. Send letter of application, current curriculum vitae, transcripts and three letters of reference, and any other supporting documents to: **Dr. Richard Mortensen, Chairman, Department of Biology, Albion College, Albion, Michigan 49224. Albion College is an Equal Opportunity Employer.** Deadline for application is 15 December 1983.

We are seeking a **PHYSICIAN SCIENTIST** with expertise in molecular or cell biology and research interests in oncogenesis, DNA damage and repair, or molecular pharmacology. The successful applicant will be capable of developing an independent research program, as evidenced by a substantial record of publications in his/her chosen area. Preferred candidates will have been trained in internal medicine and medical oncology. The position carries with it an appointment at Harvard Medical School, at the level of **assistant or associate professor of medicine.** Interested applicants are invited to submit copies of their curriculum vitae and bibliography to: **Lowell E. Schnipper, M.D., Oncology Division, Beth Israel Hospital—Harvard Medical School, 330 Brookline Avenue, Boston, Mass. 02215.**

The Beth Israel Hospital is an Equal Opportunity Employer.

PHYSICS AND ASTRONOMY HEAD

Applications and nominations are invited for the position of head, Department of Physics and Astronomy. Applicants should be able to demonstrate achievement in teaching and research and should be committed to developing strong baccalaureate and master's degree programs. Ph.D. in physics or astronomy required. Interested parties should send curriculum vitae, including bibliography, a statement of administrative, teaching and research experience, and a list of grant support obtained, and arrange to have four letters of recommendation submitted before 1 February 1984 to: **Office of Academic Affairs, Physics and Astronomy Search, Wetherby Administration Building, Western Kentucky University, Bowling Green, Ky. 42101.** Appointment date: 1 July 1984. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL AWARDS IN OCEAN SCIENCE AND ENGINEERING

Woods Hole Oceanographic Institution invites applications for 1-year postdoctoral scholar awards from new and recent doctorates in fields of biology, chemistry, engineering, geology, geophysics, mathematics, meteorology, and physics, as well as oceanography. Recipients of awards are selected on a competitive basis, with primary emphasis placed on research promise.

Fellowship stipend is \$22,600. Appointees are eligible for group health insurance and a modest research budget. Recipients are encouraged to pursue their own research interests independently or in association with resident staff. Completed applications must be received by 1 January 1984 for 1984-1985 awards. Awards will be announced by 1 March. Write for application forms to: **Dean of Graduate Studies, P.O. Box S, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543.**

Equal Opportunity/Affirmative Action Institution

Postdoctoral Research Appointments

The Biological Nuclear Magnetic Resonance Group in the Life Sciences Division at Los Alamos National Laboratory is seeking candidates for postdoctoral fellowships in metabolism and multi-nuclear imaging using stable magnetic isotopes. Current studies include adipocyte metabolism, ion transport, plant cell wall synthesis, and tumor metabolism. These form the basis for potential clinical application of NMR at the University of New Mexico/Los Alamos National Laboratory Center for Non-invasive Technology. Potential participants in this program should have experience in metabolic regulation, biochemical NMR or NMR techniques.

The Laboratory is operated by the University of California for the Department of Energy. Appointments are for one year, renewable for second year and pay a stipend amount of \$26,200 to \$27,600 per annum (depending on research experience). We provide incoming travel, moving expenses and a full range of employee benefits. Candidates no more than three years past their Ph.D or M.D. are invited to apply.

For information call Laurel Sillerud at (505) 667-2766

To apply, please send curriculum vitae, statement of research interest, and the names of three references to:

Madeline Lucas
Personnel Services Div 83-BN
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

University of California

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

An Affirmative Action/Equal Opportunity Employer:
Women, Minorities, Handicapped and Veterans are urged to apply.

Anti-Tumor Drug Discovery Research

PhD Level

Warner-Lambert/Parke-Davis has an immediate opening in our Antibiotics and Chemotherapy Department at the Scientist/Senior Scientist level. This position is located in Ann Arbor, Michigan at our modern facilities, adjacent to the University of Michigan campus, which are exclusively devoted to the discovery and development of new drugs.

The successful candidate will be involved in the isolation, characterization, and development of assay procedures for cancer-associated compounds.

Requirements for this position include a PhD, or equivalent, in biochemistry, cell biology, or microbiology; and experience in anti-tumor compounds.

Interested, qualified candidates should forward resume and salary requirements in confidence to: Ms. Maggie Wolin, Human Resources Representative, Dept. #144-83, WARNER-LAMBERT/PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, MI 48105. An Equal Opportunity Employer M/F/H.

**WARNER
LAMBERT**

POSTDOCTORAL RESEARCH APPOINTMENTS IN CELLULAR & MOLECULAR BIOLOGY LOS ALAMOS NATIONAL LABORATORY

The Genetics Group of the Life Sciences Division is accepting applications for postdoctoral fellowships in cellular and molecular biology.

Postdoctoral fellows may participate in a wide selection of programs including, but not limited to, studies in radiation and chemically induced neoplastic transformation and mutagenesis, somatic cell genetics, gene expression, and DNA repair. Candidates should have training in recombinant DNA technology, cell culture, and nucleic acid metabolism and wish to apply these techniques in molecular genetics. Fully equipped laboratory facilities, computer facilities and technical library resources provide excellent research conditions. The Laboratory is operated by the University of California for the Department of Energy. Our location in the mountains of northern New Mexico offers a beautiful environment with exceptional recreational activities.

Postdoctoral appointments are for one year, renewable for a second year and pay a stipend amount of \$26,220 to \$27,600 per annum (depending on research experience). We provide a full range of employee benefits, including incoming travel and moving expenses. Candidates no more than three years past their Ph.D. are invited to apply.

For additional information, call Ronald Walters at (505) 667-2695. To apply, send resume, undergraduate and graduate transcripts, and three letters of reference, in confidence to:

Madeline Lucas
Personnel Services, DIV 83-BE
Los Alamos National Laboratory
Los Alamos, NM 87545

University of California

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

An Affirmative Action/Equal Opportunity Employer: Women, Minorities, Handicapped and Veterans are urged to apply.

Membrane Biochemist

The Department of Immunology and Infectious Diseases at Pfizer Central Research is seeking an individual with a Ph.D. and at least two years post-doctoral training. Applicants must be experienced in membrane biochemistry with expertise in glycoprotein and glycolipid chemistry. Knowledge of infectious disease pathogenesis is desirable.

The successful candidate will be part of a multidisciplinary project team involved in the development of contemporary approaches to control infectious diseases. Responsibilities will include the identification of biologically active compounds that prevent or alter the interaction of pathogenic bacteria with mucous membrane.

The position offers an excellent opportunity for professional recognition and career growth. Publication of important findings will be encouraged. We also offer a competitive compensation, benefit and relocation package and the opportunity to live in an attractive Connecticut shore community. Please send resume and brief description of research interests to: Jerry K. Larson, Ph.D., Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.

Pfizer

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opportunity employer

POSITIONS OPEN

TWO POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE POSITIONS AVAILABLE IMMEDIATELY. One position is for work on cyclic AMP and calcium-calmodulin regulated phosphorylation of intestinal proteins and their role in the control of electrolyte transport. The second position is for work on the regulation of insulin release in pancreatic B cells. Candidates should have Ph.D. or equivalent degree with experience in biochemistry, physiology, or pharmacology. Applications including curriculum vitae and the names of three references should be sent to:

Dr. Geoffrey W. G. Sharp, Director
Division of Biological Sciences
Cornell University
Ithaca, N.Y. 14853

Cornell University is an Affirmative Action/Equal Opportunity Employer

EVOKED POTENTIAL LABORATORIES UNIVERSITY OF CALIFORNIA, IRVINE

The University of California, Irvine, has two positions available to study mechanisms of auditory and cognitive evoked potentials in experimental animals. Knowledge of single unit techniques, field potential recordings, and computer programming required. One opening is for a **POSTDOCTORAL FELLOW** to study cognitive evoked potentials in behaving animals. The other opening is for either a **POSTDOCTORAL FELLOW** or **ASSISTANT RESEARCHER** to study the generators of auditory brainstem responses.

Positions available 1 January 1984. *An Equal Opportunity/Affirmative Action Employer.* Send résumés and three letters of recommendation to: **Dr. Arnold Starr, University of California, Irvine, Neurology Department, Room 154/Med Surg I, Irvine, Calif. 92717.**

POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE DEVELOPMENTAL BIOCHEMISTRY

Two positions are available immediately for candidates with Ph.D.'s in either molecular biology/biochemistry or cell biology/immunology/embryology. For the first position familiarity with the techniques required to characterize glycoprotein structure and metabolism (particularly glycosyltransferase enzymology) are highly desirable. The successful candidate will participate in studying the epigenetic mechanisms regulating the synthesis of developmentally regulated cell surface glycoproteins. For the second position an appreciation of the role of the cell surface in cellular recognition is essential. The successful candidate will participate in studying the molecular basis for cellular recognition in the early mammalian embryo. Send curriculum vitae and a list of references to: **Dr. R. J. Ivatt, Assistant Professor, Tumor Biology Department, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Avenue, Houston, Texas 77030.**

Applications are invited for positions at the **POSTDOCTORAL FELLOW—INSTRUCTOR** (junior faculty) level in the following research areas: (i) molecular biology/recombinant DNA with special emphasis on interferon-related research, (ii) cell biology as it relates to the study of differentiation and growth control, and (iii) studies on the isolation, purification, and biological activity of growth factors. Experiments in the latter two areas will be under the supervision of Dr. Eugene Arnold and Dr. Gary Hoffman of the Department of Pathology, School of Medicine, and will use the hemopoietic system as the primary research model. Qualified candidates should submit curriculum vitae, a statement of research interests, transcripts, and three letters of recommendation to: **Dr. Paul O. P. Ts'o, Division of Biophysics, The Johns Hopkins University, School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Maryland 21205.**

POSTDOCTORAL POSITION available immediately in neurochemistry. Knowledge of tissue culture and protein biochemistry is necessary. Successful candidate will work on the biochemical characterization of neurotrophic factors and their receptors through the use of HPLC and existing hybridoma clones in this laboratory. Send curriculum vitae and two letters of reference to: **Dr. J. Regino Perez-Polo, Department of Human Biological Chemistry and Genetics, Gail Borden 436 (DO3), University of Texas Medical Branch (UTMB), Galveston, Texas 77550.** *UTMB is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL OPPORTUNITY (immunology or microbiology background) now available for the study of toxins and capsular antigens of *Staphylococcus aureus* using monoclonal antibodies. Participates in a research project investigating immune response to bovine mastitis. Hybridoma experience desirable but not essential. Salary approximately \$20,000 per year. Send résumé to: **Dr. R. H. Miller, Building 173, Beltsville Agricultural Research Center-East, Beltsville, Maryland 20705.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Available November 1983 to study the biological effect of calcium containing crystals on cultured mammalian cells. Applicants should have a doctoral degree in biochemistry, cell biology, or a related field. Experience in membrane transport and intracellular calcium measurement is desirable. This position is supported by an NIH grant for up to 3 years. Starting stipend ranges from \$17,000 to \$19,000. Please send curriculum vitae and three letters of reference to: **Dr. Herman Chung, Department of Medicine, Medical College of Wisconsin, 8700 West Wisconsin Avenue, Milwaukee, Wisc. 53226.** Telephone: 414-257-5142.

POSTDOCTORAL POSITION for recent Ph.D. or M.D., U.S. citizen or permanent resident, available immediately, supported by NIH training grant (National Research Service Awards), in the area of basic cancer chemotherapy, clinical cancer chemotherapy, cancer biology (including radiation biology), or cancer drug development (organic synthesis). Application deadline is 1 month. Send résumé indicating area(s) of interest and two or more letters of reference to: **Dr. Sungman Cha, Brown University, Box G, Providence, R.I. 02912.** Telephone: 401-863-3114. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN NEUROSCIENCE available for research on the visual system. Emphasis will be on the roles of circadian clocks and efferent pathways in visual processing at the level of the retina. Applicants will have an opportunity to gain conceptual and technical expertise in neuroanatomy and neurophysiology. Send curriculum vitae and three letters of recommendation to: **Dr. Robert B. Barlow, Jr., Institute for Sensory Research, Syracuse University, Syracuse, New York 13210.** *Syracuse University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately for person with M.D. or Ph.D. in pharmacology or physiology. This is a research position with a group concerned with regulation of the pulmonary circulation, with emphasis on pharmacologic and autonomic nervous control. Position for 1 year with additional year possible. Send résumé with names of references to: **Albert L. Hyman, M.D., Research Professor, Department of Surgery, Room 8715 Tulane Medical School, 1430 Tulane Avenue, New Orleans La. 70112.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE

Position open immediately for person with strong background in theoretical physical chemistry and computing to take part in ongoing study of theory of circular dichroic and absorption spectra of complex biomolecules. Send résumé to: **Professor Jon B. Applequist, Department of Biochemistry and Biophysics, Iowa State University, Ames, Iowa 50011.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available after April for cell/developmental biologists for studies on cell-substrate interactions during cell migration or cytoskeletal control of differentiation of connective tissues. Biochemical or immunological training is preferred but not essential. Write to: **Dr. Michael Solorsh, Department of Zoology, University of Iowa, Iowa City, Iowa 52242.** *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE position available 1 January for Ph.D. with reproductive immunology background to study surface antigens of human sperm associated with fertility/infertility. Knowledge of EIA and fluorescent techniques desirable. Salary: \$18,000 to \$20,000 per year, for 1 to 3 years. Send curriculum vitae and three references to: **Leona G. Young, Ph.D., Department of Physiology, Emory University, Atlanta, Ga. 30322.**

Emory University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available December 1983 for research on the enzymes and genes involved in the pyrimidine biosynthetic pathway of hamster and human cells. Training available in biochemistry, molecular biology, and somatic cell genetics. Background in one of these areas preferred. Send curriculum vitae and names of three references to: **Dr. Jeffrey N. Davidson, Eleanor Roosevelt Institute for Cancer Research, 4200 East Ninth Avenue, B-129, Denver, Colo. 80262.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION open immediately in the relationship of heavy metals to the immune response. The individual must be willing to work in the area of flow cytometry and teach in the medical microbiology laboratory. Send curriculum vitae, names of references and salary requirements to: **Dr. John Measel, Department of Microbiology and Immunology, Texas College of Osteopathic Medicine, Camp Bowie at Montgomery, Fort Worth, Texas 76107.** *Texas College of Osteopathic Medicine is an Equal Opportunity/Affirmative Action Employer.*

AGING RESEARCH—POSTDOCTORAL POSITION available 1 July 1984. Applicants interested in studying the impact of biological aging on enzyme catalysis must submit three letters of recommendation, curriculum vitae and bibliography, official copy of graduate transcripts, and abstract of dissertation research by 1 December 1983 to: **Dr. Ari Gafni, Institute of Gerontology, 300 North Ingalls, University of Michigan, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer.*

POSTDOCTORAL POSITION available to study transport of nucleosides and their cytotoxic analogs in neoplastic cells. Background in biochemistry and/or biochemical pharmacology necessary. Send curriculum vitae, description of research experience, and names of three references by 1 December to: **Judith A. Belt, Ph.D., Division of Biochemical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, P.O. Box 318, Memphis, Tenn. 38101.** *An Equal Opportunity/Affirmative Action Institution*

POSTDOCTORAL POSITION now available for identification of DNA sequences essential for transcription of T-DNA genes in plant cells. Project involves cloning, DNA sequencing, transcript mapping, and vector construction utilizing the pTi of *Agrobacterium*; \$17,500 per annum. Send curriculum vitae and three names of reference to: **William Gurley, Microbiology and Cell Science, 1059 McCarty IFAS, University of Florida, Gainesville, Fla. 32611.**

POSTDOCTORAL POSITION available immediately, to study mechanisms of recombination in bacteriophage, employing genetic engineering, protein and nucleic acid biochemistry, and genetics. Research experience in at least one of these areas and interest in the others essential. Send curriculum vitae and letters of recommendation to: **Dr. Anthony Poteete, Department of Molecular Genetics and Microbiology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605.** *Equal Opportunity/Affirmative Action Employer*

POSTDOCTORAL POSITIONS (TWO) IN REGULATORY BIOCHEMISTRY available immediately for studies of receptor and postreceptor actions of: (i) polypeptide growth factors that induce phenotypic transformation, (ii) polypeptide growth factors involved in the expression and regulation of the immune response (lymphokines), or (iii) insulin as a hormone or growth factor. Challenging opportunities to confront current biochemical problems using wide range of modern techniques in an excellent research environment with strong support, facilities and intra- and interdepartmental interactions. Ph.D. and research experience in biochemistry, cell biology, immunology, or related field, as well as desire to excel in research are prerequisites. Salary \$14,040 to \$16,000. Send curriculum vitae and names of three references to: **Dr. J. Massague or Dr. J. R. Seals, Department of Biochemistry, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, Mass. 01605.**

POSTDOCTORAL OR RESEARCH ASSOCIATE POSITION AVAILABLE. Studies of in vivo and in vitro regulation of insulin receptors and action in fat cells and tissue. Experience in biochemistry and/or physiology preferred for this basic science oriented laboratory. **Dean H. Lockwood, M.D., Endocrine-Metabolism Unit, Department of Medicine, University of Rochester Medical Center, Rochester, New York 14642.** *An Equal Opportunity Employer.*

Postdoctoral Research Appointments

Postdoctoral fellowships are available in several diverse areas in the Life Sciences Division at the Los Alamos National Laboratory. Major programs involve; molecular biology, somatic cell genetics, cellular immunology, NMR studies of transport and metabolism, regulation of cellular growth and transformation, radiobiology, animal, cellular and genetic toxicology, biophysics, environmental science, theoretical and mathematical biology, plant science and neurobiology.

The National Flow Cytometry Resource and National Nucleic Acid Sequence Database are at Los Alamos, and fellowships can be arranged with these facilities.

The Laboratory is operated by the University of California for the Department of Energy. Appointments are for one year, renewable for second year and pay a stipend amount of \$26,220 to \$27,600 per annum (depending on research experience). We provide incoming travel, moving expenses and a full-range of benefits. Candidates no more than three years past their Ph.D. or M.D. are invited to apply.

For more information call M. Duane Enger at (505) 667-2690.

To apply please send curriculum vitae, statement of research interests and the names of three references to:

Madeline Lucas
Personnel Services Div. 83-BO
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

University of California

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

An Affirmative Action/Equal Opportunity Employer:
Women, Minorities, Handicapped and Veterans are urged to apply.

TUMOR BIOLOGIST

Growth in our research division has resulted in the need for an individual with a Ph.D. in Biochemistry, Immunology or Pharmacology with 1-3 years post-doctoral experience in tumor biology.

Your objectives will be to discover and determine the mechanism of action of new antineoplastic agents. You will be expected to develop clinically relevant in vivo models of metastasis. Proficiency in the use of clonogenic assays for human and animal tumors is necessary.

This position offers you the opportunity for career and professional development. Publication of important findings will be encouraged. Our compensation package features a fine salary and benefits program with a solid savings plan. Please send your resume, salary requirements and a brief description of your research interests to:

Steven Wolfe, Personnel Dept.

ADRIA LABORATORIES

P.O. Box 16529
Columbus, Ohio 43216

An Equal Opportunity Employer M/F/H

RESEARCH SCIENTISTS

AMGen, an established biotechnology company with a broad technological base, is seeking Research Scientists with experience in one of the following areas:

- **Fermentation Scientist**—Candidate should have an M.S. or Ph.D. in Microbiology, Bacterial Physiology, or Chemical Engineering, and experience with fermentation and recovery equipment and processes. A strong background in biochemistry and intermediate metabolism is desirable.
- **Molecular Biologist**—Ph.D. in Microbiology, Bacterial Physiology or Genetics. Demonstrated experience in the physiology or genetics of *Pseudomonas* would be a strong plus.



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POSTDOCTORAL POSITION (available immediately) in pharmacokinetics-pharmacodynamics of opiates, including opiate analysis by radioreceptor assays. Send résumé and names and addresses of three references to: **W. Sadee, Professor of Pharmacy and Pharmaceutical Chemistry, University of California, San Francisco, San Francisco, Calif. 94143.**

POSTDOCTORAL RESEARCH ASSOCIATE PLANETARY ATMOSPHERE

Work on analysis of infrared observations of the giant planets. Research ability is the only criterion for selection. Experience with molecular opacity and radiative transfer calculations is desirable; computer proficiency is essential. Available immediately; minimum annual salary: \$20,000; minimum period: 1 year; continuation possible but not assured. All qualified persons will be conscientiously considered. Please reply to: **Dr. John Caldwell, Earth and Space Sciences Department, State University of New York (SUNY) at Stony Brook, Stony Brook, New York 11794.** *SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE. Applications for a research position in a cooperative project between the Metabolism and Radiation Research Laboratory, USDA-ARS, and the Department of Botany, North Dakota State University, have been accepted since 1 October 1983. Research will focus on the mechanism of action of selected desiccants and defoliants with emphasis on early biochemical effects. Ph.D. in biochemistry, plant physiology, or related fields is required. Experience in plant water relations and/or guard cell physiology is desirable. One year appointment, with possibility of a 1-year extension. Salary will be \$18,000 per year. Send résumé and names of three references to: **Dr. Harold Goetz, Chairman, Department of Botany, North Dakota State University, Fargo, N.D. 58105.** *An Equal Opportunity Employer.* For further information, interested candidates should write or call: **Dr. James Metzger, Metabolism and Radiation Research Laboratory, USDA/ARS, State University Station, Fargo, N.D. 58105; telephone: 701-237-5771, extension 5146.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position available to study development of the sympathetic nervous system in chick. Projects involve electrophysiology, microsurgery, quail-chick transplantations, and HRP labelling. Send curriculum vitae and names of three references to: **J. W. Yip, Department of Physiology, School of Medicine, University of Pittsburgh, Pittsburgh, Pa. 15261.**

POSTDOCTORAL RESEARCH ASSOCIATE position available for research in molecular endocrinology to investigate: the estrogen receptor structure, receptor-DNA interaction, or kinetics of estrogen and antagonist-receptor interaction. Send curriculum vitae and names of three references to: **Dr. A. C. Notides, Department of Radiation Biology and Biophysics, University of Rochester School of Medicine and Dentistry, Rochester, New York 14642.** *An Equal Opportunity/Affirmative Action Employer*

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately to study the molecular mechanisms activating cellular oncogenes in regenerating and preneoplastic rat liver. Familiarity with techniques of nucleic acid biochemistry essential. Interested candidates should send curriculum vitae with names and addresses of three references to: **Dr. Peter Shank or Dr. Nelson Fausto, Division of Biology and Medicine, Brown University, Providence R.I. 02912.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL TRAINING IN THE NEUROSCIENCES. Postdoctoral training positions are available in basic and clinical neuroscience including positron emission tomography studies of neurologic disease. Applicants must have the M.D. or Ph.D. degree and must be U.S. citizens, non-resident U.S. nationals, or have a permanent residence visa. Application deadline is 1 January 1984. Send curriculum vitae, three letters of recommendation, and a statement of research interests to: **Sid Gilman, M.D., Professor and Chairman, Department of Neurology, The University of Michigan, 1103 East Huron, Ann Arbor, Mich. 48109, attention: Dr. George W. Dauth.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TWO POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS

To study: (i) electrophysiology of the nasal chemical senses, and (ii) isolation and characterization of substances stimulating the vomeronasal system. Candidates should have a Ph.D. or equivalent and training in neurophysiology or biochemistry. Send curriculum vitae and names of three references to:

**Dr. Mimi Halpern, Box 5
Department of Anatomy and Cell Biology
Downstate Medical Center
450 Clarkson Avenue
Brooklyn, N.Y. 11203**

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RESEARCH ASSOCIATE

Postdoctoral Research Associate position available to study the interaction between the membrane lipid matrix and voltage-dependent ionic channels in neurons. Suitable candidates should have experience in voltage clamp techniques (single channel recording is desirable) or in use of techniques to measure mobility of membrane components (such as fluorescence photobleaching recovery). Send résumé and names of three references to: **Dr. Steven N. Treisman, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.**

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RESEARCH ASSOCIATE (Ph.D.): An excellent research position is available in a neurotoxicology laboratory to study mechanisms of action and prevention of the delayed neurotoxicity of organophosphorus agents and direct the activities of two technicians. Ph.D. in neuroscience or toxicology. Research experience in electrophysiologic techniques, enzyme assays, and computer programming highly desirable. Salary: \$17,500 to \$20,000. Send résumé and names of references to: **Dr. R. J. Richardson, Toxicology Research Laboratory, School of Public Health, University of Michigan, Ann Arbor, Mich. 48109.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

Research Investigator Cardiac Cellular Electrophysiology

The Research & Development Division of G.D. Searle & Co. has a challenging opportunity in its Biological Research Department for an individual to supervise the cardiac cellular electrophysiology laboratory. Responsibilities include designing, developing, and carrying out the cellular cardiac electrophysiology testing necessary for the evaluation of new antiarrhythmic agents; and supervising complementary testing necessary for the evaluation of new cardiotonic agents as well as new antiarrhythmic agents. The qualified candidate will have a Ph.D. in Pharmacology, Physiology, or equivalent and 1-3 years of postdoctoral experience. At least one year's experience actively working with cardiac intracellular recording techniques is a definite requirement.

In return, we offer a salary commensurate with your experience, competitive benefits package, relocation assistance, and growth potential. For confidential consideration, send your detailed resume with salary history and three references to:

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A Searle R&D Representative will be present at the Annual American Heart Association meeting, November 13 through 18. Please call 312/982-8088, if you will also be in attendance and desire a potential interview during the meeting. Minority applicants are encouraged to apply.

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Indiana State University invites applications and nominations for the position of director of grants and contracts.

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Qualifications: Qualifications for the director include established Washington contacts, 3 years of successful administrative experience in a university or corporate grants and contracts office or equivalent experience with a funding agency or foundation, excellent writing skills, and the ability to work effectively with faculty from a wide variety of disciplines. The doctorate is preferred. The master's degree is required.

Salary: Competitive.

Position available: 1 January 1984.

To insure consideration, curriculum vitae and three letters of reference must be received before 4 November 1983. Materials should be sent to:

**Dr. Julia Albright, Chair
Search Committee for Director of Grants
and Contracts
School of Graduate Studies
Indiana State University
Terre Haute, Indiana 47809**

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The American Association for the Advancement of Science (AAAS), publisher of *Science*, is initiating a search for **Editor**. The journal is published weekly with worldwide circulation to members of the AAAS and institutional subscribers, including libraries. *Science* serves as a forum for the presentation and discussion of important issues relating to the advancement of science, with particular emphasis on the interactions among science, technology, government, and society. It includes reviews and reports of research having interdisciplinary impact.

In selecting an editor, the Board of Directors will attach special weight to evidence of significant achievement in scientific research, editorial experience and creativity, awareness of leading trends in the scientific disciplines, and managerial abilities.

Applications or nominations should be accompanied by complete curriculum vitae, including refereed publications, and should be sent to: **Catherine Borras, Secretary, Search Committee, Executive Office, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036**. Salary is negotiable based on qualifications and experience. Application materials should be sent by 31 December 1983.

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UNIVERSITY OF CALIFORNIA, IRVINE POSTDOCTORAL TRAINING IN NEUROBIOLOGY OF AGING

Postdoctoral scholar stipends are available for students interested in the neurobiology of aging particularly as related to Alzheimer's disease, the restoration of function after CNS injury, and the neural basis of behavioral plasticity in the aged. Participating faculty include Drs. C. Cotman and J. Marshall (synaptic plasticity and aging, Alzheimer's disease), H. Killackey and J. Fallon (neuroanatomy of aging), G. Lynch, J. McGaugh, and L. Stein (learning and memory), A. Starr and M.-L. Kean (cognitive processes, Alzheimer's disease and aging), and I. Lott (neurology, Down's syndrome, Alzheimer's disease). Positions available January 1984.

Candidates should address inquiries to:

Dr. Carl Cotman
Department of Psychobiology
University of California, Irvine
Irvine, California 92717

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U.S. DEPARTMENT OF ENERGY Senior-Level Staff Positions in Biomedical Research Management RADIATION BIOLOGIST GENETICIST

Office of Health and Environmental Research, Office of Energy Research, U.S. Department of Energy (DOE), is seeking qualified applicants for the staff positions of **RADIATION BIOLOGIST** and **GENETICIST** in the Health Effects Research Division, which administers a broad multidisciplinary program of basic and applied research to understand and quantify health effects associated with the large-scale production and use of energy. Both positions involve appointments for a period of 2 years.

Must be U.S. citizen. Ph.D. or equivalent required. Experience in independent research required. Salary range for GS-15 is from \$48,553 to \$63,115. Duty station: Headquarters Office, Germantown, Md. Send SF-171, application for federal employment, or direct inquiries to:

Stephanie Chaconas
Office of Personnel Operations, GTN
MA-205.4
Office of Personnel
U.S. Department of Energy
Washington, D.C. 20545
Telephone: 301-353-5591

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RESEARCH TECHNICIAN III Two positions

College degree in a biological science; or equivalent. One position requires good biochemistry background with experience in fluorescence spectrophotometry essential; experience in data processing helpful. One position requires a working knowledge of immunology and experience in sterile technique or tissue culture essential; experience in production of monoclonal antibodies desirable. Salary: \$13,752 to \$20,520.

Apply at: **The Employment Division, 111 Pettigrew Hall, University of North Carolina-Chapel Hill, Chapel Hill, N.C. 27514. Telephone: 919-962-2991.**
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Applicants should hold a Ph.D. in experimental high energy physics and have a minimum of 6 years of experience in the development of on-line software for high energy physics experiments, at some time involving collider beam detectors.

Normal hours of work will be 40 per week (8:30 a.m. to 5 p.m.). A salary of \$41,200 and full benefits package are offered. Applications should be directed to the attention of: **Joan Haight, Illinois Job Service, 910 South Michigan Avenue, Room 400, Chicago, Illinois 60605, quoting reference number 2160-H.** *An Equal Opportunity Employer, M/F. AN EMPLOYER PAID AD.*

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RESEARCH BIOCHEMIST, Ph.D., as key scientist, thyroid hormone action at the cell level. Up to 7-year term appointment; salary about \$30,000 or more. American citizen. If Civil Service rated, must be GS-12 or higher. Requisites include experience with mitochondrial oxidative phosphorylation, thyroid physiology, protein fractionation, and, if possible, photoaffinity labeling. Send résumé to: **Dr. Kenneth Sterling, VA Medical Center, 130 West Kingsbridge Road, Bronx, N.Y. 10468.**

RUMINANT NUTRITIONIST: The Animal Sciences Department has an open research position in forage utilization by dairy cattle. This is a tenure-track position. Contact: **Dr. R. L. Kincaid, Department of Animal Sciences, Washington State University, Pullman, Wash. 99164-6320.** Deadline: 1 November 1983. *Washington State University is an Equal Opportunity/Affirmative Action Employer.*

SCIENCE, TECHNOLOGY AND PUBLIC POLICY

The Woodrow Wilson School of Public and International Affairs, Princeton University, is seeking candidates for an assistant professorship in the fields of **SCIENCE, TECHNOLOGY AND PUBLIC POLICY ANALYSIS**. Applicants should have a research background at the Ph.D. level and some first-hand involvement in policy problems that raise important scientific issues or have substantial technological content. Candidates will be considered who have Ph.D. degrees in the social, physical, or life sciences, engineering, or history of science and technology. The appointment might be made jointly with another academic department. Applications with curriculum vitae and references should be made to: **Dean, Woodrow Wilson School, Princeton University, Princeton, N.J. 08544.** *Princeton University is an Affirmative Action Employer.*

SUPERVISORY RESEARCH ANIMAL SCIENTIST. U.S. Department of Agriculture, Miles City, Montana, is seeking laboratory director to develop and conduct a research program in range beef cattle nutrition, and coordinate the overall research programs of the 55,000-acre station. **MUST BE U.S. CITIZEN.** Salary: \$41,277 to \$48,553. For qualification and application information, contact: **Rita Millard, telephone: 415-273-4281.** *An Equal Opportunity Employer.*

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Submit résumé to: **NORTHERN CONSULTANTS, INC., P.O. Box 220, Hampden, Maine 04444.** *Equal Opportunity Employer, M/F.*

FELLOWSHIPS

HYPERTENSION RESEARCH FELLOWSHIPS. Fellowships in hypertension research for 2 years for qualified applicants are available at the Mayo Clinic and Mayo Graduate School of Medicine. This NIH-funded multidisciplinary program provides research training in hypertension by faculty in Nephrology, Endocrinology, Cardiovascular Diseases, Pharmacology, Pediatrics, Biochemistry, and Physiology. Applicants should have the M.D. or Ph.D. degree and hold a permanent visa if not a citizen of the United States. Degree programs leading to the master's or Ph.D. degrees are available to individuals with the M.D. degree. For further information, write to: **R. M. Weinshilboum, M.D., Director, Multidisciplinary Hypertension Research Training Program, Mayo Clinic, Rochester, Minnesota 55905.** *An Equal Opportunity/Affirmative Action Institution.*

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP—Research or hormone action with emphasis on regulation and role of intracellular receptors for peptide hormones M.D. or Ph.D. with experience in molecular endocrinology and/or membrane research preferred. Send curriculum vitae and references to: **Dr. Barry Posner, Division of Endocrinology, Royal Victoria Hospital, McGill University, Montreal, Quebec, Canada H3A 1A1.**

SCIENCE, TECHNOLOGY, AND SOCIETY RESEARCH FELLOWSHIPS

The Massachusetts Institute of Technology (MIT) Program in Science, Technology, and Society in vites applications for several 1-year research fellowships on the relationships of science, technology and society, with a preference given this year to the history of science. Ph.D. or equivalent desirable. Partial or full stipend. Application deadline: 15 January 1984. For more information, write: **Shawn Finnegan, E51-128, MIT, Cambridge, Mass. 02139.**

POSTDOCTORAL FELLOWSHIP IN EXPERIMENTAL NEURO-ONCOLOGY. Applications invited from recently qualified M.D.'s or Ph.D.'s (U.S. nationals or permanent residents) for one traineeship available 1 July 1984 in neuropathology research training program. Interest must be in neoplastic neural differentiation. Candidates with good biochemical background preferred. Applications to: **L. J. Rubinstein, M.D., Department of Pathology Division of Neuropathology, Box 214, University of Virginia School of Medicine, Charlottesville, Virginia 22908.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH GRANTS

RESEARCH GRANTS are available from the Tourette Syndrome Association. For information, researchers interested in training fellowships, clinical studies, and neuroscientifically oriented research projects relevant to T.S. should contact: **Perman Research Fund, Tourette Syndrome Association, Inc. 41-02 Bell Boulevard, Bayside, N.Y. 11361.** Telephone: 212-224-2999.

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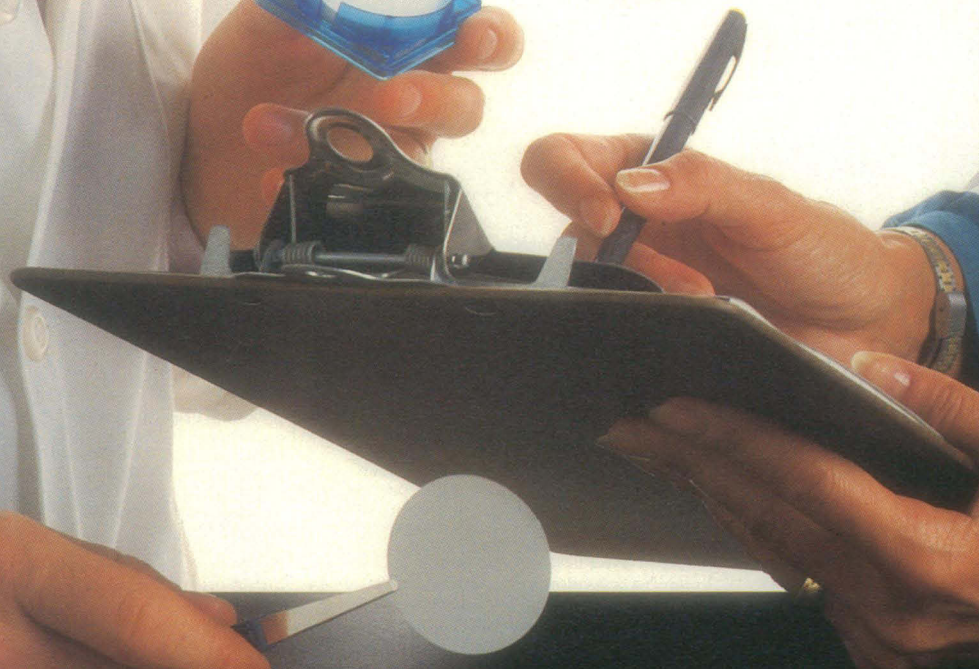
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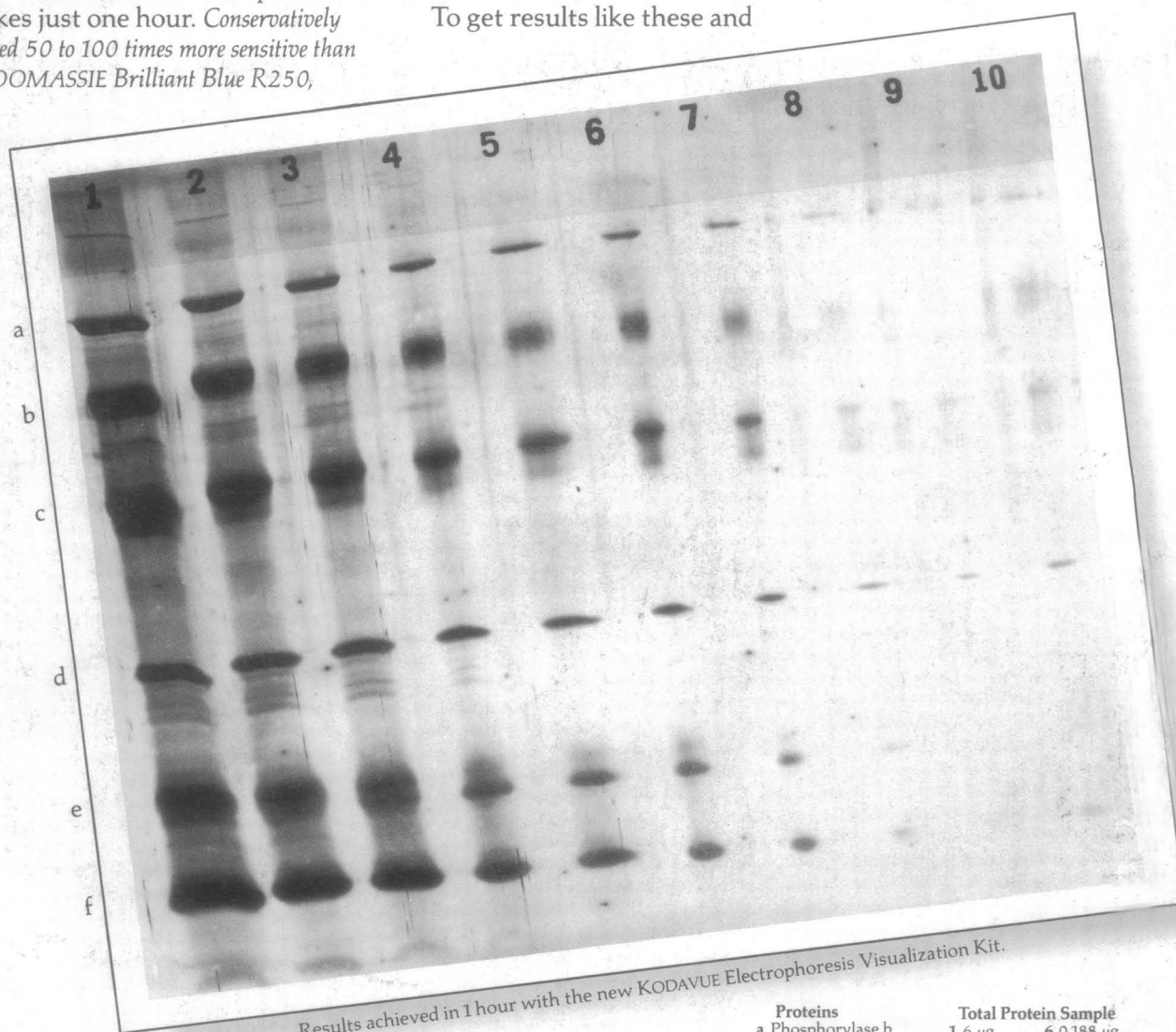
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