

Books Received

- Biology of the Acanthocephala.** D. W. T. Crompton and Brent B. Nickol, Eds. Cambridge University Press, New York, 1985. xii, 519 pp., illus. \$89.50. From a symposium, San Antonio, Texas, Dec. 1983.
- Bone Marrow Transplantation for Treatment of Lysosomal Storage Diseases.** William Krivit and Natalie W. Paul, Eds. Liss, New York, 1986. xvi, 202 pp., illus. \$49. Birth Defects: Original Article Series, vol. 22, no. 1. From a colloquium, Washington, DC, May 1985.
- Born To Die?** Deciding the Fate of Critically Ill Newborns. Earl E. Shelp. Free Press, New York, 1986. xvi, 250 pp. \$19.95.
- The Calculus Tutoring Book.** Carol Ash and Robert B. Ash. Institute of Electrical and Electronics Engineers Press, New York, 1986. x, 534 pp., illus. \$34.95; to members, \$31.45.
- Cambridge and Clare.** Harry Godwin. Cambridge University Press, New York, 1985. xxii, 230 pp., illus. \$42.50. Reminiscences of the British botanist.
- The Cambridge Astronomy Guide.** A Practical Introduction to Astronomy. William Liller and Ben Mayer. Cambridge University Press, New York, 1985. 176 pp., illus. \$24.95.
- Cancer Metastasis.** Experimental and Clinical Strategies. D. R. Welch, B. K. Bhuyan, and L. A. Liotta, Eds. Liss, New York, 1986. xviii, 334 pp., illus. \$54. Progress in Clinical and Biological Research, vol. 212. From a symposium, Kalamazoo, MI, Sept. 1985.
- The Cell in Contact.** Adhesions and Junctions as Morphogenetic Determinants. Gerald M. Edelman and Jean-Paul Thiery, Eds. Wiley, New York, 1985. viii, 507 pp., illus. \$67.50. The Neurosciences Institute Publications Series.
- Cellular Biology of Ectoenzymes.** Georg W. Kreutzberg, Martin Reddington, and Herbert Zimmerman, Eds. Springer-Verlag, New York, 1986. xiv, 313 pp., illus. \$58. Proceedings in Life Sciences. From a symposium, Germany, May 1984.
- Chromosome Structure and Function.** Michael S. Risley, Ed. Van Nostrand Reinhold, New York, 1986. x, 246 pp., illus. \$46.50. Van Nostrand Reinhold Advanced Cell Biology Series.
- Climatic Change and World Affairs.** Crispin Tickell. 2nd ed. Center for International Affairs, Harvard University, and University Press of America, Lanham, MD, 1986. xvi, 76 pp., illus. \$17.50; paper, \$7.25.
- Coal Exploration, Mine Planning, and Development.** Roy D. Merritt. Noyes, Park Ridge, NJ, 1986. xiv, 464 pp., illus. \$64.
- Coding and Information Theory.** Richard W. Hamming. 2nd ed. Prentice-Hall, Englewood Cliffs, NJ, 1986. xii, 259 pp., illus. \$36.95.
- College Physics.** Francis W. Sears, Mark W. Zemansky, and Hugh D. Young. 6th ed. Addison-Wesley, Reading, Mass., 1985. xvi, 958 pp., illus. \$36.95. Solutions Guide. A. Lewis Ford. vi, 281 pp. Paper, \$8.95. Study Guide. Barney Sandler and Daria Bouadana. x, 642 pp., illus. Paper, \$19.95.
- Computational Techniques in Operations Research.** A. M. Andrew. Abacus, Cambridge, MA, 1985. viii, 201 pp., illus. \$29. Computer Language and Programming Series.
- Concepts of Genetics.** William S. Klug and Michael R. Cummings. 2nd ed. Merrill, Columbus, Ohio, 1986. xx, 699 pp., illus. \$34.95.
- Concise Text of Histology.** William J. Krause and J. Harry Cutts. 2nd ed. Williams and Wilkins, Baltimore, 1986. xxii, 527 pp., illus. Paper, \$19.95.
- Conserving Soil.** Insights from Socioeconomic Research. Stephen B. Lovejoy and Ted L. Napier, Eds. Published for North Central Regional Research Committee 162 by the Soil Conservation Society of America, Ankeny, IA, 1986. xii, 155 pp., illus. \$8. From a symposium, Zion, IL, June 1985.
- A Conspiracy of Cells.** One Woman's Immortal Legacy and the Medical Scandal It Caused. Michael Gold. State University of New York Press, Albany, 1986. viii, 170 pp. \$29.50; paper, \$10.95.
- Controlled Wildlife.** A Three-Volume Guide to U.S. Wildlife Laws and Permit Procedures. Vol. 3, State Wildlife Regulations. Steven T. King and John Richard Schrock. Association of Systematics Collections, Lawrence, KS, 1985. x, 315 pp., illus. Paper, \$55.
- Cosmic Radiation in Contemporary Astrophysics.** Maurice M. Shapiro, Ed. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). viii, 274 pp., illus. \$49. NATO Advanced Science Institutes Series C, vol. 162. From an institute, Erice, Sicily, Nov. 1984.
- Coulombic Interactions in Macromolecular Systems.** Adi Eisenberg and Fred E. Bailey, Eds. American Chemical Society, Washington, DC, 1986. viii, 272 pp., illus. \$59.95. ACS Symposium Series, 302. From a symposium, Philadelphia, Aug. 1984.
- Crystallographic Computing 3.** Data Collection, Structure Determination, Proteins, and Databases. G. M. Sheldrick, G. Krüger, and R. Goddard, Eds. Clarendon (Oxford University Press), New York, 1985. x, 314 pp., illus. \$35. From a summer school, Mülheim an der Ruhr, W. Germany, July 1984.
- Dioxin, Agent Orange.** The Facts. Michael Gough. Plenum, New York, 1986. 289 pp., illus. \$17.95.
- Diseases and Parasites of Marine Fishes.** H. Möller and K. Anders. Möller, Kiel, W. Germany, 1986. ii, 365 pp., illus. Paper, DM50.
- Durch die USA und Canada im Jahre 1887.** Ein Tagebuch. Louis Lewin. Bo Holmstedt and Karlheinz Lohs, Eds. Akademie-Verlag, Berlin, DDR, 1985. xx, 212 pp., illus. DM28.
- The Dynamic Partnership.** Birds and Plants in Southern Australia. H. A. Ford and D. C. Paton, Eds. Government Printing Division, Adelaide, South Australia, 1986. 199 pp., illus., + plates. Paper, \$15. Handbook of the Flora and Fauna of South Australia.
- Dynamical Astronomy.** Victor G. Szebehely and Bela Balazs, Eds. University of Texas Press, Austin, 1986. xiv, 177 pp., illus. \$25. From a workshop, Austin, Texas, Sept. 1984.
- Ecological Knowledge and Environmental Problem-Solving.** Concepts and Case Studies. Committee on the Applications of Ecological Theory to Environmental Problems, National Research Council. National Academy Press, Washington, DC, 1986. xii, 388 pp., illus. Paper, \$24.50.
- Ecology and Natural History of Desert Lizards.** Analyses of the Ecological Niche and Community Structure. Eric R. Pianka. Princeton University Press, Princeton, NJ, 1986. xii, 209 pp., illus., + plates. \$45; paper, \$19.95.
- Ecology and Tropical Biology.** Ian Deshmukh. Blackwell Scientific, Palo Alto, CA, 1986. xii, 387 pp., illus. Paper, \$19.95.
- Fallacies of Creationism.** Willard Young. Detselig Enterprises, Calgary, Alberta, 1986. x, 302 pp. \$C21.95.
- Family and Delinquency.** Resocializing the Young Offender. Ludwig L. Geismar and Katharine M. Wood. Human Sciences Press, New York, 1986. 243 pp. \$19.95.
- The Fascination of Statistics.** Richard J. Brook et al., Eds. Dekker, New York, 1986. xiv, 436 pp., illus. \$24.75. Popular Statistics Series, 4.
- Finsler Geometry, Relativity and Gauge Theories.** G. S. Asanov. Reidel, Boston, 1985 (distributor, Kluwer, Hingham, MA). x, 370 pp. \$64. Fundamental Theories of Physics.
- Fish and Human Health.** William E. M. Lands. Academic Press, Orlando, FL, 1986. x, 170 pp., illus. \$24.95.
- Flowfield Modeling and Diagnostics.** A. K. Gupta and D. G. Lilley. Abacus, Cambridge, MA, 1985. xii, 414 pp., illus. \$56. Energy and Engineering Science Series.
- Fluid Mechanics and Transfer Processes.** J. M. Kay and R. M. Nedderman. Cambridge University Press, New York, 1985. xviii, 602 pp., illus. \$69.50; paper, \$29.95.
- Forensic Science.** Geoffrey Davies, Ed. 2nd ed. American Chemical Society, Washington, DC, 1986. x, 390 pp., illus. \$59.95.
- Franklin of Philadelphia.** Esmond Wright. Harvard University Press, Cambridge, MA, 1986. xx, 405 pp. + plates. \$25.
- Free Radicals in Biology and Medicine.** Barry Halliwell, Peter O'Neill, and Joe V. Bannister, Eds. Harwood, New York, 1985. x, 266 pp., illus. \$69. Life Chemistry Reports, vol. 3, nos. 1 and 2. From a meeting, York, England, July 1984.
- From Advocacy to Allocation.** The Evolving American Health Care System. David Mechanic. Free Press, New York, 1986. xii, 238 pp. \$24.95; paper, \$12.95.
- From Pixels to Predicates.** Recent Advances in Computational and Robotic Vision. Alex P. Pentland, Ed. Ablex, Norwood, NJ, 1986. xviii, 398 pp., illus. \$55; paper, \$35. Ablex Series in Artificial Intelligence.
- From Quark to Quasar.** Notes on the Scale of the Universe. Peter H. Cadogan. Cambridge University Press, New York, 1985. 183 pp., illus. \$24.95.
- Frontiers in Biomechanics.** G. W. Schmid-Schönbein, S. L.-Y. Woo, and B. W. Zweifach, Eds. Springer-Verlag, New York, 1986. xviii, 395 pp., illus. \$39.50.
- Frontiers in Supercomputing.** N. Metropolis et al., Eds. University of California Press, Berkeley, 1986. xxiv, 388 pp., illus. \$24.95. Los Alamos Series in Basic and Applied Sciences. From a conference, Los Alamos, NM, Aug. 1983.
- Frontiers of Laser Technology.** The Best of *Laser Focus*. Morris R. Levitt and Lewis Holmes, Eds. Penn-Well Books, Tulsa, Okla., 1985. vi, 161 pp., illus. Paper, \$24.95.
- Frontiers of Modern Physics.** New Perspectives on Cosmology, Relativity, Black Holes and Extraterrestrial Intelligence. Tony Rothman et al. Dover, New York, 1985. viii, 197 pp., illus. Paper, \$6.95.
- Hormones and Human Behaviour.** Bernard T. Donovan. Cambridge University Press, New York, 1985. viii, 223 pp. \$39.50. The Scientific Basis of Psychiatry, 2.
- How To Write and Publish Engineering Papers and Reports.** Herbert B. Michaelson. 2nd ed. ISI Press, Philadelphia, 1986. xiv, 182 pp., illus. \$21.95; paper \$14.95. The Professional Writing Series.
- Imagining Tomorrow.** History, Technology, and the American Future. Joseph J. Corn, Ed. M.I.T. Press, Cambridge, MA, 1986. viii, 237 pp., illus. \$17.50.
- Immigrant Killers.** Introduced Predators and the Conservation of Birds in New Zealand. Carolyn King. Oxford University Press, New York, 1985. 224 pp., illus. \$35.
- Immunochemistry.** Ludwig A. Sternberger. 3rd ed. Wiley, New York, 1986. xvi, 524 pp., illus. \$52.50.
- In Search of the Big Bang.** Quantum Physics and Cosmology. John Gribbin. Bantam, New York, 1986. xviii, 414 pp., illus. Paper, \$9.95. Bantam New Age Books.
- The Induction of Hypnosis.** William E. Edmonston, Jr. Wiley-Interscience, New York, 1986. xvi, 432 pp., illus. \$41.95. Wiley Series on Personality Processes.
- Industrial Utilization of Renewable Resources.** An Introduction. H. Harry Szmant. Technomic, Lancaster, PA, 1986. xii, 188 pp., illus. Paper, \$35.
- Infinite Dimensional Lie Algebras.** Victor G. Kac. 2nd ed. Cambridge University Press, New York, 1985. xviii, 280 pp. \$24.95.
- Instrumentation for Heavy Ion Nuclear Research.** Dan Shapira, Ed. Harwood, New York, 1985. xvi, 401 pp., illus. Paper, \$49. Nuclear Science Research Conference Series, vol. 7. From a conference, Oak Ridge, TN, Oct. 1984.
- Interaction of Steroid Hormone Receptors with DNA.** M. Sluysers, Ed. Horwood, Deerfield Beach, FL, 1985. 242 pp., illus. \$46.50. Ellis Horwood Health Science Series.
- Interferometry.** W. H. Steel. 2nd ed. Cambridge University Press, New York, 1985. xvi, 308 pp., illus. Paper, \$24.95. Cambridge Studies in Modern Optics, 2. Reprint, 1983 edition.
- The Interferon System.** F. Dianzani and G. B. Rossi, Eds. Raven, New York, 1985. xii, 441 pp., illus. \$49.50. Sero Symposium Publications, vol. 24. From a symposium, Rome, May 1985.
- Interrelationship among Aging, Cancer and Differentiation.** Bernard Pullman, Paul. O. P. Ts'o, and Edmond L. Schneider, Eds. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). x, 345 pp., illus. \$57. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 18 (Jerusalem, April 1985).
- Introduction to Characterization and Testing of Catalysts.** J. R. Anderson and K. C. Pratt, Academic Press, Orlando, FL, 1985. x, 457 pp., illus. \$82.
- Introduction to Educational Gerontology.** Ronald H. Sherron and D. Barry Lumsden, Eds. 2nd ed. Hemisphere, New York, 1985. xii, 361 pp. Paper, \$24.95.
- Introduction to Magnetic Recording.** Robert M. White, Ed. IEEE Press, New York, 1985. x, 309 pp., illus. \$47.50; to members, \$28.50.
- Introduction to Natural Language Processing.** Mary Dee Harris. Reston (Prentice-Hall), Reston, Va., 1985. xvi, 368 pp., illus. Paper, \$27.95; paper, \$24.95.
- Introduction to Pascal.** With Applications in Science and Engineering. Susan Finger and Ellen Finger. Heath, Lexington, MA, 1986. xviii, 670 pp., illus., + appendixes + index. Paper, \$25.95.
- Introduction to Potential Theory.** Rudolf Sigl. Abacus, Cambridge, MA, 1985. xiv, 229 pp., illus. Paper, \$20. Translated from the German edition (Karlsruhe, W. Germany, 1973) by John W. Robbins and William E. Burckhardt.
- Introduction to Satellite Oceanography.** G. A. Maul. Nijhoff, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). x, 606 pp., illus. \$80. Remote Sensing of Earth Resources and Environment.
- An Introduction to Twistor Theory.** S. A. Huggett and K. P. Tod. Cambridge University Press, New York, 1985. x, 145 pp., illus. \$39.50; paper, \$13.95. London Mathematical Society Student Texts, vol. 4.
- Introduction to VLSI Silicon Devices.** Physics, Technology and Characterization. Badih El-Kareh and

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Products & Materials

Data Handling for Chemical Analysis

Based on the MS DOS operating system, the Model CFA-PC data-handling package is compatible with any IBM or IBM-compatible computer. All programming is in BASIC and is user-accessible. The CFA-PC data-handling package permits the user to analyze data and to perform baseline, sensitivity, and sample carry-over corrections as needed. In addition, the user has a choice of reporting formats, including printout, recording on floppy disk, or transmitting data to any computer that can communicate with the CFA-PC. Information includes sample run, sample count, and analysis data in concentration units, together with a statistical package which reports coefficient of variation and standard deviation. Orion Scientific Instruments. Circle 556.

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Biological Refrigerators

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fan shuts down automatically when doors are opened. All units are designed for rapid temperature recovery. Adjustable, interchangeable shelves and drawers are provided. Options include triple-pane, cloud-proof glass doors, stainless steel exteriors and interiors, recording thermometers, temperature monitors, and pass-through operation. Jewett Refrigerator. Circle 572.

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offers all features of research-grade microscopes such as interchangeable objectives and condensers, various types of illumination, binocular viewing, and photomicrography. Change from transmission to reflective mode is accomplished by a switch. Spectra-Tech. Circle 569.

Literature

Particle Size Distribution Analysis System offers the benefits and specific features of the series 4300 system and its 32-channel counter, sensor, and sampler. HIAC/ROYCO. Circle 546.

Chemistry Controls lists 41 products including packaging configuration, storage conditions, reconstituted stability claims, constituents, and methodologies. Ciba Corning Diagnostics, Gilford Systems. Circle 563.

Metering Pumps comprises a line of valveless, variable, positive displacement metering pumps, dispensers, and accessories for handling solutions, suspensions, slurries, and gases. Fluid Metering. Circle 566.

Scientific Word Processor describes a version of TechWriter for the Rainbow personal computer equipped with the MS-DOS operating system. Scientific and mathematic characters and equations may be combined with standard text. CMI Software. Circle 573.

Cryopumps is a guide to the selection and use of high vacuum pumps for gas delivery. Parameters affecting vacuum chamber performance are discussed. Balzers. Circle 574.

Biotechnology Reagents is devoted to the Accugen line of laboratory chemicals. Anachemia. Circle 575.

Micromanipulators features the de Fonbunne line of pneumatic tools that offer various reduction ratios for performing experiments under magnification. Tasso. Circle 576.

Chromatography Workstation offers five programs to increase the productivity of the IBM Chromatography Workstation. The five are Chromatography Applications II, Touch and View, Utilities Library, Gel Permeation Chromatography, and GC/963 Emulation Program. IBM Instruments. Circle 577.

Optical Spectroscopy: Sampling Techniques Manual introduces and reviews six methods: transmission, external reflection, diffuse reflection, internal reflection, emission, and photoacoustic optical spectroscopy. Harrick Scientific. Circle 578.

Spectrophotometer Cells includes almost 100 different cells for standard and special applications. NSG Precision Cells. Circle 580.

(Continued from page 584)

Richard J. Bombard. Kluwer Academic, Hingham, MA, 1986. xx, 569 pp., illus. \$49.95. Kluwer International Series in Engineering and Computer Science.

Medical Virology. David O. White and Frank Fenner. 3rd ed. Academic Press, Orlando, FL, 1986. viii, 655 pp., illus. \$42.50.

Meditations at 10,000 Feet. A Scientist in the Mountains. James Trefil. Illustrations by Judith Peatross. Scribner, New York, 1986. xiv, 236 pp., illus. \$16.95.

Membrane Separations in Biotechnology. W. Courtney McGregor, Ed. Dekker, New York, 1986. xx, 386 pp., illus. \$65. Bioprocess Technology, vol. 1.

Memory, Imprinting, and the Brain. An Inquiry into Mechanisms. Gabriel Horn. Clarendon (Oxford University Press), New York, 1985. xiv, 315 pp., illus. \$45. Oxford Psychology Series, no. 10.

Metal Ions in Biological Systems. Vol. 20, Concepts on Metal Ion Toxicity. Helmut Sigel and Astrid Sigel, Eds. Dekker, New York, 1986. xxvi, 386 pp., illus. \$85.

Methotrexate in Cancer Therapy. Kiyoji Kimura and Yeu-Ming Wang, Eds. Raven, New York, 1986. xxiv, 307 pp., illus. \$42. Progress in Cancer Research and Therapy, vol. 33. Based on a meeting, Tokyo, 1983.

Microbiology. Raúl J. Cano and Jaime S. Colomé. West, St. Paul, Minn., 1986. xviii, 888 pp., illus., + plates + appendices. \$38.95.

The Mind's Eye. Readings from *Scientific American*. Introductions by Jeremy M. Wolfe. Freeman, New York, 1986. viii, 127 pp., illus. \$20.95; paper, \$11.95.

Mineral Matter and Ash in Coal. Karl S. Varres, Ed. American Chemical Society, Washington, DC, 1986. xiv, 538 pp., illus. \$97.95. ACS Symposium Series, 301. From a symposium, Philadelphia, Aug. 1984.

Models of the Visual Cortex. David Rose and Vernon G. Dobson, Eds. Wiley-Interscience, New York, 1986. xxii, 586 pp., illus. \$77.95.

The Molecular Biology of Bacterial Growth. A Symposium Held in Honor of Ole Maaloe (Tuscaloosa, AL, April 1984). Moselio Schaechter *et al.*, Eds. Jones and Bartlett, Boston, 1985. xxviii, 384 pp., illus. \$45.

Monitoring of Occupational Genotoxicants. Marja Sorsa and Hannu Norppa, Eds. Liss, New York, 1986. xiv, 250 pp., illus. \$42. Progress in Clinical and Biological Research, vol. 207. From a symposium, Helsinki, June 1985.

Movements of the Hand. C. G. Phillips. Liverpool University Press, Liverpool, England, 1986 (U.S. distributor, Humanities Press, Atlantic Highlands, NJ). xvi, 148 pp., illus. \$25. Sherrington Lectures, no. 17.

Multimind. Robert Ornstein. Houghton Mifflin, Boston, 1986. viii, 206 pp., illus. \$16.95.

Program Evolution. Processes of Software Change. M. M. Lehman and L. A. Belady, Eds. Academic Press, Orlando, FL, 1985. xiv, 539 pp., illus. \$40; paper, \$24.95. A.P.I.C. Studies in Data Processing, no. 27.

Prostanoids. Pharmacological, Physiological and Clinical Relevance. P. K. Moore. Cambridge University Press, New York, 1985. viii, 263 pp., illus. \$54.50; paper, \$19.95.

Psychophysics. Introduction to Its Perceptual, Neural, and Social Prospects. S. S. Stevens. Geraldine Stevens, Ed. Transaction, New Brunswick, NJ, 1986. xiv, 329 pp., illus. Paper, \$16.95. Reprint, 1975 edition.

The Quantum and Beyond. William M. Honig. Swan River Press, Perth, Western Australia, and Philosophical Library, New York, 1986. xii, 293 pp., illus. \$25; paper, \$17.50.

Quantum Mechanics in Simple Matrix Form. Thomas F. Jordan. Wiley-Interscience, New York, 1986. xii, 259 pp., illus. Paper, \$24.95.

Rates of Chemical Weathering of Rocks and Minerals. Steven M. Colman and David P. Dethier, Eds. Academic Press, Orlando, FL, 1986. xviii, 603 pp., illus. \$95.

Read the Label. Reducing Risk by Providing Information. Susan G. Hadden. Published in cooperation with AAAS by Westview, Boulder, CO, 1986. xviii, 275 pp., illus. \$27.50.

Recent Progress in Polyamine Research. L. Selmecci, M. E. Brosnan, and N. Seiler, Eds. Akadémiai Kiadó, Budapest, 1985. xii, 634 pp., illus. \$65. From a conference, Budapest, Aug. 1984.

Science in the Provinces. Scientific Communities

and Provincial Leadership in France, 1860-1930. Mary Jo Nye. University of California Press, Berkeley, 1986. xii, 328 pp., + plates. \$39.95.

Selected Topics in Gauge Theories. Walter Dittrich and Martin Reuter. Springer-Verlag, New York, 1986. vi, 315 pp., illus. Paper, \$18.60. Lecture Notes in Physics, vol. 244.

Senile Dementia of the Alzheimer Type. Early Diagnosis, Neuropathology and Animal Models. J. Traber and W. H. Gispen, Eds. Springer-Verlag, New York, 1985. vii, 376 pp., illus. \$49. Advances in Applied Neurological Sciences, 2. From a symposium, Cologne, Nov. 1984.

Sensory Impairments in Mentally Handicapped People. David Ellis, Ed. Croom Helm, London, and College-Hill, San Diego, CA, 1986. x, 438 pp., illus. \$39.50.

Signs of the Flesh. An Essay on the Evolution of Hominid Sexuality. Daniel Rancour-Laferrriere. Mouton de Gruyter, New York, 1985. x, 473 pp. \$76.40. Approaches to Semiotics, 71.

Silent Partners. The Legacy of the Ape Language Experiments. Eugene Linden. Times Books, New York, 1986. xiv, 247 pp. \$17.95.

Snakes of the World. Chris Mattison. Facts on File, New York, 1986. 190 pp., illus. \$17.95.

The Social Meaning of Modern Biology. From Social Darwinism to Sociobiology. Howard L. Kaye. Yale University Press, New Haven, CT, 1986. x, 184 pp. \$20.

Solar Energy Prospect in the Arab World. H. Alawi *et al.*, Eds. Pergamon, New York, 1986. xiv, 453 pp., illus. \$103. From a conference, Bahrain, Feb. 1986.

Solar Radiophysics. Studies of Emission from the Sun at Metre Wavelengths. D. J. McLean and N. R. Labrum, Eds. Cambridge University Press, New York, 1985. xii, 516 pp., illus. \$59.50.

Solid State Physics. J. S. Blakemore. 2nd ed. Cambridge University Press, New York, 1985. x, 506 pp., illus. \$27.95.

The Stationary Semiconductor Device Equations. Peter A. Markowich. Springer-Verlag, New York, 1986. x, 193 pp., illus. \$45. Computational Microelectronics.

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The Health Effects Institute (HEI) announces its 1986 Request for Applications (RFAs).

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- mechanisms of oxidant toxicity in the lung
- the health effects of aldehydes

Materials describing the Health Effects Institute, specifics of the research topics, and preparation of applications are available.

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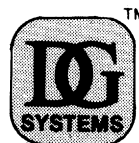
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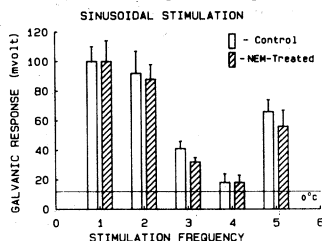
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Science

Posters

The following posters of *Science*
covers are available:

30 March 1979, Tropical flowering
tree;

23 February 1983, Landsat photo
of Detroit, Michigan;

29 July 1983, Cheetah;

2 December 1983, Snowshoe
hare;

23 December 1983, Cathedral
window/DNA molecule.

Combination of space covers in
scroll format: 1 June 1979, 23 No-
vember 1979, 10 April 1981.

Price is \$5 each (prepaid).

Write to AAAS, Department POST,
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D.C. 20005.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. 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:

22 August issue (mailed 15 August): **1 August**
29 August issue (mailed 22 August): **8 August**
5 September issue (mailed 29 August): **15 August**
12 September issue (mailed 5 September): **22 August**

POSITIONS WANTED: 40¢ per word, plus \$4 for use of box number, per week. \$10 minimum, per week. Prepayment required. This rate is available only to individuals seeking jobs.

LINE DISPLAY (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): \$13.00 per millimeter; \$325 minimum, per week (minimum charge covers 25 millimeters on a single column; 25 millimeters equals 10 lines of 50 spaces per line). No charge for use of box number. No agency commission for ads less than 103 millimeters (4 inches). No cash discount. Prepayment required for all foreign ads. Purchase orders and billing address required for all other advertising.

Send copy for all **Positions Wanted** ads and **Line Display** ads less than 1/6 page in size (125 millimeters) to:

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Telephone: 202-326-6555

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1515 Broadway
New York, NY 10036
Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

Box (give number)
SCIENCE
1333 H Street, NW
Washington, DC 20005

POSITIONS WANTED

Biochemist Ph.D. 1980, England. Extensive experience in protein and enzyme purification, characterization, sequence, HPLC, cell culture, cell technology, and so forth. Teaching and industrial experience seeks position in research, teaching, or industry. Will consider short term appointment. Available immediately. Box 142, SCIENCE. 8/8, 15, 22, 29

Biochemist/Biotechnologist (M.S. Biotechnology): Proficient in genetic engineering, applied enzymology, microbial biochemistry, and fermentation technology. Seeks research assistantships in industries and academe. Challenging researches welcomed, financial remuneration unessential. Box 136, SCIENCE. X

Ph.D. Biology. Many years of research experience, publications. Expertise receptors, tissue culture. Seeks research/teaching position. Fall, 1986. Box 137, SCIENCE. X

Laboratory Technician—B.S., plus 8 years of laboratory experience. Desires job in or near Colorado Springs. Experienced in muscle physiology, histochemistry, EM, enzyme assays, and animal surgery. Some work in exercise physiology. Box 140, SCIENCE. 8/1, 8, 15

Research Biotechnology, M.S. with industrial experience. Desire challenging position in industry or academia. Laboratory experiences include molecular biology, recombinant DNA, strain development, fermentation, radioisotopes, and separations techniques: LC, HPLC, agarose/polyacrylamide electrophoresis, and ultrafiltration. Designed, built, and operated supercritical extraction system. Box 129, SCIENCE. 8/1, 8, 15

POSITIONS OPEN

ANIMAL BEHAVIOR POSITION: UNIVERSITY OF WASHINGTON. Tenure-track position in the Department of Psychology, University of Washington, beginning September 1987. Rank open, although presently targeted at the assistant professor level. Applicant's background may be in either psychology or biology. The successful candidate will be expected to pursue a vigorous research program emphasizing an evolutionary approach to animal behavior. Teaching duties include introductory and advanced courses in animal behavior, plus one service course. Submit curriculum vitae, a brief statement of research interests, recent reprints, and have four letters of recommendation sent to: **Chair, Department of Psychology NI-25, University of Washington, Seattle, WA 98195.** Applications received by 15 September 1986 are assured of consideration. *An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT ADJUNCT PROFESSOR OF SURGERY/ HEAD AND NECK SURGERY UNIVERSITY OF CALIFORNIA AT SAN DIEGO

QUALIFICATIONS: Ph.D. in biomechanics or related subspecialty and 3 years of laboratory research experience in biomedical engineering. Will assist Division of Head and Neck Surgery faculty with research on investigation of trauma mechanisms of occupants in automobile accidents, and will teach medical, graduate, and post-graduate students. Send curriculum vitae and inquiry to: **Dennis Schneider, Ph.D., Assistant Adjunct Professor of Surgery, M-014, University of California, San Diego, Gilman Drive and La Jolla Village Drive, La Jolla, CA 92093.** Salary: Per published scale. This is not a tenure-track position. Closing date is 15 August 1986. *University of California, San Diego is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT DIRECTOR FOR TRACE ANALYSIS at the Midwest Center for Mass Spectrometry. Duties include supervising trace analysis of chlorinated dioxins, dibenzofurans, and related compounds, preparing reports and publications, and interacting with research sponsors. Requires Ph.D. in chemistry and experience in trace analysis. Position is permanent. Salary minimum \$28,000. Apply with application letter, résumé, and have three reference letters sent by 18 August (or until suitable candidate is chosen) to: **Professor M. L. Gross, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR (nontenure track). A person is sought with Ph.D. in biochemistry, molecular biology, or pharmacology, with 3 to 4 years of postdoctoral experience, and with firsthand experience in experimental aspects of measurements of receptor coupling mechanisms, in computer modeling of the interactions of receptors with their agonistic and antagonistic ligands and in cloning of membrane proteins using molecular biology and recombinant DNA techniques, to carry out work on an NIH-funded research project dealing with the elucidation of the molecular basis of distinct coupling modes of acetylcholine receptors in brain and heart. The position is available now. Interested persons should provide three reference letters which testify to their experience in the three years mentioned above and contact in writing: **Dr. Lutz Birnbaumer, Professor, Department of Cell Biology, Baylor College of Medicine, Houston, Texas 77030.**

ASSISTANT PROFESSOR—GENETICS OF MARINE ORGANISMS—The College of Marine Studies, UNIVERSITY OF DELAWARE, announces a 12-month, tenure-track marine biology-biochemistry faculty position at the Lewes Marine Studies Complex in the genetics of marine organisms (molecular or population). Responsibilities will include development of a vigorous research program, graduate-level teaching, and student advisement in the area of expertise. Respondents should submit a letter of application describing their research interests and background, a current curriculum vitae, and the names and address of three references to: **Dr. Nancy N. Targett, Search Committee Chairman, College of Marine Studies, UNIVERSITY OF DELAWARE, 700 Pilottown Road, Lewes, DE 19958.** Closing date is 31 August 1986. *The University of Delaware is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA AT LOS ANGELES (UCLA). The Department of Atmospheric Sciences invites applications for a junior or senior level (ASSISTANT, ASSOCIATE, OR FULL PROFESSOR) ladder faculty appointment. Preference will be given to applicants with a proven record of research accomplishments in the areas of mesoscale dynamics, observational studies of mesoscale and large-scale atmospheric flows, and air-sea interactions. The position entails developing a strong research program with an emphasis on graduate guidance. The department also considers important superior performance in graduate and undergraduate teaching.

Applications should be sent before 1 September 1986 to:

George L. Siscoe
Chairman
Department of Atmospheric Sciences
406 Hilgard Avenue
Los Angeles, CA 90024

UCLA is an Affirmative Action/Equal Opportunity Employer.

UNIVERSITY OF HAWAII AT MANOA
Biotechnology Program
(A joint program of the
Pacific Biomedical Research Center and
the Hawaii Institute of Tropical
Agriculture and Human Resources)

ASSISTANT RESEARCHER/SPECIALIST required for the Center's Biotechnology Program to undertake the laboratory studies and assist in a liaison capacity with field trials in Chunan, Republic of China, on hormonal control of farrowing in sows and on hormonal expression of heat stress in tropical breeding sows. The position is not tenured and subject to the availability of funding for the anticipated starting date of 1 September 1986. A Ph.D. degree in biochemistry with graduate or postdoctoral experience in the field of peptide hormones is required together with the ability to communicate with English and Cantonese speaking scientists, laboratory and field workers in the Republic of China. Minimum monthly salary: \$2216. Inquiries and applications to: **Dr. Suresh Patil, Program Director, Biotechnology Program, University of Hawaii at Manoa, 1993 East West Road, Honolulu, Hawaii 96822.** CLOSING DATE: 15 August 1986. *The University of Hawaii is an Equal Opportunity Employer.*

TITLE: Associate Director of the New Jersey Agricultural Experiment Station

LOCATION: Cook College/New Jersey Agricultural Experiment Station, Rutgers, The State University of New Jersey

DUTIES AND RESPONSIBILITIES:

Assists the senior associate director in the management of the food, environmental, life science, and agricultural research programs of the New Jersey Agricultural Experiment Station, as well as the coordination and leadership of research activities of 20 departments and research centers in marine, biotechnology, and food science. The research component of the Experiment Station includes 244 FTE and an annual appropriated research budget of over \$15 million. The associate director helps administer the research budget, monitors expenditures and position allocation, prepares various research reports, and is responsible for the administrative activities of the NJAES state and federal research programs and projects.

QUALIFICATIONS:

Administrative experience in fiscal planning, budget development, and financial control is required. Earned doctorate in agriculture or related discipline, and significant experience in research and administration needed.

APPLICATION:

Please submit a complete curriculum vitae and the names of three references by 15 September 1986 to: **Aline Kelsey, Assistant Dean for Personnel, at the following address:**

Cook College/Rutgers University
P.O. Box 231
Martin Hall, Room 101
Lipman Drive
New Brunswick, New Jersey 08903

An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHARMACOLOGY/TOXICOLOGY

The Department of Pharmacology and Toxicology, School of Pharmacy and Pharmaceutical Sciences, Purdue University, has an opening for a full-time, tenure-track assistant professor of pharmacology/toxicology beginning approximately 1 January 1987. Preference will be given to candidates with training and/or research experience in areas related to drug metabolism, particularly at the cellular/molecular level. The applicant must have a Ph.D. and will be expected to establish an independent research program and procure extramural funding. The applicant must also be committed to excellence in teaching and will participate in the departmental teaching programs for pharmacy, nursing, medical, and graduate students. A background in pharmacy is desirable, but not essential.

To apply for this position, curriculum vitae, a brief description of research interest, and the names and addresses of three individuals willing to serve as references should be submitted by 1 October 1986 to insure consideration. All information should be sent to:

Dr. George K. W. Yim, Head
Department of Pharmacology and Toxicology
School of Pharmacy and Pharmaceutical Sciences
Purdue University
West Lafayette, IN 47907

Purdue University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR: The Section of Pulmonary and Critical Care Medicine at The University of Chicago is seeking an assistant professor of medicine with knowledge and publications in basic science aspects of alternative modes of mechanical ventilation and pulmonary edema. Higher publications and research should deal expressly with the above and specifically address research concerns regarding constant flow ventilation. The candidate is expected to be able to obtain competitive research support.

In addition, candidates should have extensive training in intensive care medicine. Candidates will be responsible for research, teaching, and clinical activities including the establishment of an independent research program and attending on Pulmonary Consultation Service, in the Pulmonary Outpatient Clinic, and in the Intensive Care Unit.

Send curriculum vitae to: **Dr. Larry Wood, Box 83, Pulmonary/Critical Care Medicine, The University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637.** *An Affirmative Action/Equal Opportunity Employer.*

The Human Gene Mapping Library in New Haven, Connecticut, seeks an individual with a Ph.D. in Genetics with a strong background in computers to fill an immediate full-time opening as an **ASSOCIATE** in the Howard Hughes Medical Institute. This is an excellent opportunity for a self-motivated person who can take on a leadership role. The position involves close collaboration with professors at Yale University working in human genetics and with other investigators in this field in the United States and abroad. A background in research concerned with restriction fragment length polymorphisms would be useful. Duties will include: reconciliation of physical and Mendelian human linkage groups; investigation into and retrieval of mapping information of human genes; compilation of associated data; and ongoing communication of results to researchers.

Please send curriculum vitae and letters of inquiry to: **Iva H. Cohen, Operations Manager, Howard Hughes Medical Institute, Human Gene Mapping Library, 25 Science Park, New Haven, CT 06511.** *An Equal Opportunity Employer.*

BIostatISTICS DIRECTOR

Biostatistics director—Ph.D. level director sought to supervise biostatistics activities and staff of 15 at the City of Hope Cancer Research Center, including all clinical trials development, data collection, and study evaluation for this NCI-funded Cancer Center. Respond with curriculum vitae and three letters of reference to: **Dr. James Doroshow, Department of Medical Oncology, City of Hope National Medical Center, 1500 East Duarte Road, Duarte, CA 91010.** *City of Hope is an Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT RESEARCH PHYSIOLOGIST THE DEPARTMENT OF PHYSIOLOGY-ANATOMY UNIVERSITY OF CALIFORNIA, BERKELEY

Invites applications to fill a full-time, research position at the assistant research level (range \$32,800 to \$36,900) for 1 year, effective 15 September. Appointment can be renewed on an annual basis, depending on available funding. This position is for a cell physiologist who will image cytosolic Ca^{2+} and pH in single cells, particularly in relation to mitogenic activation, the cell cycle, and cell-cell interactions such as lymphocyte-mediated cytotoxicity. Applicants should have a Ph.D. and a publication record in relevant aspects of cell biology. Experience with fluorescence microscopy and digital image-processing would be desirable. Interested individuals should write a letter explaining their qualifications and enclose a current curriculum vitae and list three or more persons who could act as referees to:

Dr. Roger Y. Tsien
Department of Physiology-Anatomy
2549 Life Sciences Building
University of California
Berkeley, CA 94720

Applications must be received by 29 August 1986. *The University is an Equal Opportunity/Affirmative Action Employer.*

Stanford University invites nominations and applications for a newly endowed **CHAIR, THE HENRY J. KAISER, JR., PROFESSORSHIP** in Health Policy in the School of Medicine. The appointee must be an outstanding scholar in an area related to health services or health policy, with the breadth and capacity to chair a newly established department tentatively titled Health Research and Policy. This department will gather together the faculties of biostatistics, epidemiology, health services research, and medical informatics.

Nominations and applications, accompanied by curriculum vitae, should be mailed to: **Marian Knox, The Kaiser Chair Search Committee, Room M-121, Stanford Medical Center, Stanford, California 94305,** no later than 15 September 1986. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and encourages applications from such candidates.*

**CHAIRMAN
DEPARTMENT OF ANIMAL AND POULTRY
SCIENCE
Ontario Agricultural College
University of Guelph**

Applications are invited for the position of chairman, Department of Animal and Poultry Science at the University of Guelph. The position is available 1 July 1987.

The Department of Animal and Poultry Science is one of ten administrative units in the Ontario Agricultural College (OAC). It has a close working relationship with units within the college, as well as with departments in the Ontario Veterinary College and the College of Biological Science. It is one of the largest departments within OAC with 40 faculty and professional staff members and 75 other staff. The undergraduate major in Animal and Poultry Science averages 80 students each year, and there are currently 60 graduate students enrolled. The department administers major research programs in beef, dairy, poultry, and swine.

The successful applicant will have background and experience in animal science, poultry science, or in a closely related field and will have demonstrated qualities of leadership. Experience in teaching and research is desirable.

The closing date for applications is 31 January 1987. Applications should include curriculum vitae and the names and addresses of three persons who may be contacted for reference.

This position is open to Canadian or non-Canadian citizens.

Enquiries and applications, which will be treated in confidence, should be addressed to:

Dr. F. L. McEwen
Dean
Ontario Agricultural College
University of Guelph
Guelph, Ontario N1G 2W1

Appointment is subject to final budgetary approval.

SENIOR NEUROENDOCRINOLOGIST

Animal Science Discovery Research

The LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company, is seeking highly qualified candidates for a senior scientist position in the Discovery Division of Animal Science Research (Greenfield, Indiana).

Applicants must have a Ph.D. degree in the neurosciences and training in endocrinology (post doctoral experience preferred). Applicants should have a career orientation toward the understanding and control of growth and lactation in large animals. This scientist will be expected to establish a competitive independent research program using the latest basic laboratory techniques and will be expected to interact with scientists in a variety of scientific disciplines, located at our Corporate Center (Indianapolis). Candidates should have a working knowledge in cell biology, molecular biology and protein chemistry.

Please forward your curriculum vitae to:



Ms. Lori E. Pivo
Personnel Representative LP734
Eli Lilly and Company
Greenfield Laboratories
P. O. Box 708
Greenfield, Indiana 46140

An Equal Opportunity Employer M/F

RESEARCH MICROBIOLOGIST

The Upjohn Company, located in Kalamazoo, Michigan, is seeking a research microbiologist to join an expanding group of associates and scientists in the Microbiology and Nutrition Research Unit. This group is working on the development of novel vaccines for protection against animal viral diseases. Candidates should have a B.S. or M.S. in microbiology or related science with a minimum of several years experience in these areas: cell culture, animal pathogens, hybridoma technology and basic immunological, virological and biochemical techniques.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a rich mix of cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers the opportunity for career growth, a competitive salary, commensurate with experience, a comprehensive benefits program and relocation assistance.

For confidential consideration, please call from outside of Michigan toll free 1/800-253-8600, ext. 3-6767, (inside Michigan call collect: 616/323-6767) to request an employment application be sent to you immediately. Please refer to ad number 19621-A when calling.



An Equal Employment Opportunity Employer M/F

THEORETICAL BIOLOGY AND BIOPHYSICS GROUP

Los Alamos National Laboratory has an immediate need for outstanding scientists to conduct theoretical research on nucleic acid sequences and very large scale genetic information databases. The research includes:

Analysis, simulation, and development of computational support for large-scale mapping and sequencing;

Design of interactive and comprehensive information systems for genetic data that may include sequences totalling more than 10^9 bases;

Design of computer networks for access and distributed use of the system; and

Research to advance the scope and usefulness of computational sequence analysis.

Scientists having a strong background (Ph.D. level) in molecular genetics and/or experience in appropriate areas of computer science are invited to apply. Positions at the staff and post-doctoral level are open. This may be a unique opportunity to participate in studies leading to a major national or international program. This research will draw on the group's experience in developing the GenBank nucleic acid database and a decade of work in computational sequence analysis.

For further information, contact Walter Goad (505) 667-7511 or apply in writing with resume and names of at least three references to:

Richard Garcia
60308-U

Personnel Services Division
MSP 205

Los Alamos
National Laboratory
Los Alamos, NM 87545
Affirmative Action/
Equal Opportunity Employer



BIOCHEMIST/RESEARCH BIOCHEMIST

The Cardiovascular Diseases Research group of The Upjohn Company has a position for a research associate in biochemistry with experience in the design and conduct of experiments to elucidate mechanisms of antihypertensive drugs. Studies will include: *in vitro* mechanical responses of vascular smooth muscle to stimuli; measurements of membrane ionic fluxes by radioisotopes; (^{45}Ca , ^{42}K); and measurements of cyclic AMP and cyclic GMP using radioimmunoassays.

Qualified applicant should have a B.S. or M.S. in biochemistry, biology, physiology or pharmacology and several years of related experience in the above research areas. Familiarity with computers, automated lab systems and report preparation are highly desirable.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a rich mix of cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers the opportunity for career growth, a competitive salary, commensurate with experience, a comprehensive benefits program and relocation assistance.

For confidential consideration, please call from outside of Michigan toll free 1/800-253-8600, ext. 3-6767, (inside Michigan call collect: 616/323-6767) to request an employment application be sent to you immediately. Please refer to ad number 19575-A when calling.



An Equal Employment Opportunity Employer M/F

POSITIONS OPEN

CHAIR JOINT MEDICAL PROGRAM AND TENURED PROFESSORSHIP UNIVERSITY OF CALIFORNIA (UC)/BERKELEY AND UC/SAN FRANCISCO

The chair will have responsibility for administration of the first 3 years of the joint program at UC Berkeley, for developing faculty and ensuring liaison with UC San Francisco. Together with the Joint Faculty Committee, the chair will be responsible for the curriculum. The chair should have a medical qualification. However, an exception may be made in the case of an individual who has demonstrated exceptional involvement in medical school administration. The chair must have qualifications to merit appointment to the faculty of both campuses. It is hoped to make the appointment as soon as possible. Résumé and application letter should be sent to: **The Chair, Search Committee, Joint Medical Program, School of Public Health, 19 Warren Hall, University of California, Berkeley, CA 94720**, by 1 October 1986.

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

CHAIRPERSON DEPARTMENT OF PATHOLOGY

Applications are invited for the position of professor and chairperson, Department of Pathology, University of South Carolina (USC) School of Medicine, Columbia, South Carolina. Candidates should have an M.D., certification in one of the boards of pathology, a commitment to excellence in medical education, and an established record of research. The chairperson will have responsibilities for administration of the department, teaching medical students, and continuing a program of scholarly activity. The opportunity for clinical involvement is available at the affiliated VA hospital.

Applications, including curriculum vitae, bibliography, and names of three references, should be sent to: **Dr. D. O. Allen, Chairman, Pathology Search Committee, Department of Pharmacology, USC School of Medicine, Columbia, SC 29208**. *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON, DEPARTMENT OF PHARMACOLOGY

The Georgetown University Medical Center invites applications and nominations for the position of chairperson, Department of Pharmacology. The department is responsible for teaching pharmacology to the medical and dental school students and offers an in-depth graduate program. In addition, the chairperson participates extensively in administrative activities in the medical center. Candidates must have a distinguished record of scholarly academic and research achievements and teaching and administrative experience. A strong capability for leadership is required. The position requires a major commitment to the development and administration of the departmental research and teaching programs. Applicants should send a letter of application summarizing their academic experience and research expertise, curriculum vitae, and have three letters of recommendation forwarded to: **Dr. Lawrence Lilienfeld, Search Committee Chairperson, Department of Physiology and Biophysics, Georgetown University School of Medicine, 3900 Reservoir Road, NW, Washington, DC 20007**. Applications must be received by 1 November 1986. *Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

CLINICAL CYTOGENETICIST

The Department of Genetics is seeking a Ph.D./M.D. who is Board-eligible/certified (American Board of Medical Genetics). Other candidates with strong background in human genetics may apply (in-house 2-year training for Board-eligibility). Send résumé, relevant reprints, and three letters of reference to:

**Dr. Raj Bharathur,
Department of Genetics
Roche Biomedical Laboratories, Inc.
69 First Avenue, Raritan, NJ 08869**

An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHAIRMAN, DEPARTMENT OF BIOCHEMISTRY

The Georgetown University Medical Center invites applications and nominations for the position of chairman, Department of Biochemistry. The department is responsible for teaching general biochemistry to the medical and dental school of students and offers an in-depth graduate program. In addition, the chairman participates extensively in administrative activities in the medical center. Candidates must have a distinguished record of scholarly academic and research achievements and teaching and administrative experience. A strong capability for leadership is required. The position requires a major commitment to the development and administration of the departmental research and teaching programs. Applicants should send a letter of application summarizing their academic experience and research expertise, curriculum vitae, and have three letters of recommendations forwarded to: **Dr. Gary R. Pearson, Search Committee Chairman, Department of Microbiology, Georgetown University Medical Center, Washington, DC 20007**. Applications must be received by 1 October 1986.

CHAIRPERSON DEPARTMENT OF MICROBIOLOGY MEHARRY MEDICAL COLLEGE

Meharry Medical College, School of Medicine, invites applications and nominations for the position of professor and chairperson of the Microbiology Department. The department seeks continued strong leadership with the opportunity to expand into new areas of research emphasis. Candidates should hold the M.D. or Ph.D. or equivalent degree and have a demonstrated commitment to excellence in research and teaching and a proven record in obtaining extramural funding in research. The department currently focuses on immunology and host-parasite interactions, regulation of gene expression, and the molecular and genetic basis of pathogenicity. The department is well equipped and has major funding from NIH, as well as training grants available. Excellent salary, space, and start-up funds will be provided. Applicants should send curriculum vitae, letter of application, and the names of five references prior to 30 September 1986 to: **Dr. George C. Hill, Chairperson, Microbiology Search Committee, Department of Microbiology, Meharry Medical College, Nashville, TN 37208**, telephone: 615-327-6193. *An Equal Opportunity/Affirmative Action Employer.*

DEAN, College of Home Economics, Iowa State University. Candidates must be outstanding scholars with recognized commitments to the field of home economics, demonstrated leadership abilities, and administrative skills; have earned doctorate and meet the standards for appointment at the rank of professor in an academic department of the college. Application deadline is 15 September 1986. Position available 1 July 1987. Send a letter of interest, curriculum vitae, and names of five references to: **Dr. Ed Powers, Chair, Dean of Home Economics Search Committee, c/o Office of the Vice President for Academic Affairs, 110 Beardshear Hall, Iowa State University, Ames, Iowa 50011**. *Iowa State University is an Equal Opportunity/Affirmative Action Employer.*

EUKARYOTIC MOLECULAR BIOLOGIST/MOLECULAR GENETICIST: Available 1 January 1987, an 11-month, tenure-track position as assistant professor and assistant nematologist. Research, teaching, and student advising responsibilities in the areas of molecular biology, molecular genetics, and cell biology, particularly with reference to nematodes. The appointee will be expected to develop a strong research program on the genetic and molecular bases of nematode/plant interactions. A Ph.D. in a biological science, with experience in molecular biology and molecular genetics, and a record of research productivity is expected. Application deadline: 1 October 1986. Send curriculum vitae, statement of research and teaching interests relative to applying expertise in nematology, official undergraduate and graduate transcripts, reprints of relevant publications, and submitted manuscripts, names, and addresses of at least three references to: **H. K. Kaya, Search Committee Chairman, Division of Nematology, University of California, Davis, California 95616**. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

DIRECTOR OF THE OFFICE OF PATENTS, COPYRIGHTS AND TECHNOLOGY TRANSFER FOR THE four-campus University of Missouri.

The director must be capable of interacting with faculty inventors, patent attorneys, and state-funded Innovation Centers, as well as conducting negotiations with industrial licensees. The director will be responsible for assessment, development, marketing, and promotion of university technology, patents, and copyrights.

Qualifications include experience in promoting inventions and patents in an academic or industrial setting and an advanced degree. Competitive compensation; complete benefits package. Send applications and nominations, preferably by 29 August 1986 to: **Dr. Nancy A. Marlin, Assistant Vice President for Academic Affairs, 309 University Hall, University of Missouri, Columbia, Missouri 65211**.

An Equal Opportunity Institution

EXECUTIVE SUPERVISOR OF SCIENCE

Provide leadership, curricular, and instructional assistance to kindergarten through twelfth grade Science Office. Must possess MARYLAND Advanced Professional Certificate in science and certification in administration and supervision. Minimum of 5 years of successful teaching at elementary, middle, junior high, or high school level. Send application, curriculum vitae, copy of all transcripts, and experience verification by 29 August 1986 to

**Howard County Public School System
10910 Route 108
Ellicott City, Maryland 21043
Attention: Director of Human Resources**

ST. JOHN'S UNIVERSITY COLLEGE OF PHARMACY AND ALLIED HEALTH PROFESSIONS FACULTY POSITIONS

Applications are invited for three tenure-track positions at the ASSISTANT OR ASSOCIATE PROFESSOR level in each of the following areas: (i) pharmacology, (ii) medicinal chemistry and (iii) toxicology. Rank and salary are commensurate with the applicant's qualifications and experience. This position is for the academic year with the opportunity for summer employment.

Persons applying should possess a (i) Ph.D. in pharmacology or related field, (ii) Ph.D. in medicinal chemistry, pharmaceutical chemistry, or a related field, or (iii), a Ph.D. in toxicology or related field. An undergraduate degree from an accredited college of pharmacy is desirable. Primary responsibilities include teaching undergraduate and graduate courses and directing an active research program in an area of specialization.

Applicants should provide an updated curriculum vitae including teaching and research interests and a list of three references. Applications should be sent to: **Dr. Amrit L. Kapoor, Chairman, Department of Pharmaceutical Sciences, College of Pharmacy and Allied Health Professions, St. John's University, Jamaica, NY 11439**.

An Equal Opportunity Employer (M/F)

OBSTETRICS AND GYNECOLOGY, UNIVERSITY OF MINNESOTA, seeks a FACULTY MEMBER to teach and conduct research in MATERNAL-FETAL MEDICINE. Candidates with 6 years post M.D., Board-qualified or -certified, in maternal-fetal medicine will be considered at the assistant professor level in a tenure-track position. Candidates meeting the above requirements, having attained professional accomplishments in research and writing, and demonstrated effectiveness in teaching and academic advisement will be considered at the associate professor level with tenure. Candidates with eight or more years of post M.D., Board-qualified or -certified in maternal-fetal medicine, having a national reputation in research and demonstrated effectiveness in teaching and academic advisement, will be considered at the professor level with tenure. Recruiting deadline 30 October 1986. Contact, **Bruce A. Work, Jr., M.D., Professor and Head, Obstetrics and Gynecology, Box 395 UMHC, University of Minnesota, 420 Delaware Street S.E., Minneapolis, Minnesota 55455**.

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

SCIENTIST

BS degree in wildlife management, zoology, biology, or related field or life sciences or equivalent. Must be capable of working alone under field conditions and have a valid driver's license, training or experience conducting wildlife surveys, using maps and compass, handling wild mammals, and using radio telemetry equipment desired. Will conduct surveys for San Joaquin kit foxes, prey base and food habits on federal lands. Will also assist with other field studies to define importance of endangered species on army reservations. Base location will be Bakersfield, California.

Please refer to opening #86-22

Qualified candidates send resume to:



EG&G Energy Measurements, Inc.
Attn: Technical Recruiting
130 Robin Hill Road
Goleta, California 93117

*U.S. Citizenship Required
An Equal Opportunity Employer*

Research Molecular Biologist

American Cyanamid's Agricultural Research Division has an opening for a Research Molecular Biologist within the Chemotherapy and Immunology Group. The position provides a unique opportunity for a highly qualified and motivated individual in a multidisciplinary research environment.

A M.S. or B.S. degree with specialization in biochemistry, biology or microbiology and 2-5 years of experience in a productive academic or industrial laboratory is required. Experience in modern techniques in cellular immunology (T&B cell hybridomas, in vitro antigen stimulation assays, flowcytometry, etc.) and molecular biology (Southern and Northern blots, DNA/RNA sequencing, cDNA cloning, expression vectors, etc.) is desirable.

You will work with a Senior Research Scientist to develop and plan experiments in the general area of immunoregulation. Creativity and the ability to work independently will be required. You will be responsible for the development of assay systems related to immunology and molecular biology. You will also be in charge of an independent project and training of other technical staff.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume to the Employment Office,



American Cyanamid Company
Agricultural Research Division
P.O. Box 400
Princeton, New Jersey 08540
An Equal Opportunity Employer M/F/H.

PROFESSOR AND CHAIRMAN MICROBIOLOGY-IMMUNOLOGY

The Northwestern University Medical and Dental Schools invites applications and nominations for the position of Professor and Chairman of the Department of Microbiology-Immunology. Candidates should have outstanding academic credentials in research, teaching, and leadership abilities and an international reputation for academic excellence. The new chairman will have the opportunity for leadership in the continued development of a department which has significant growth potential, especially in the areas of immunology, virology, and pathogenesis. The department is well-equipped for modern research in the broad field of microbiology-immunology. Additional faculty positions and research space and facilities will be available for future growth and development. The department has strong interactions with the Northwestern University Cancer Center. The department has an established doctoral program and its faculty participate in several interdisciplinary doctoral programs. The new chairman will be responsible for promoting excellence in the teaching of medical, dental, and graduate and postdoctoral students and in research and for the administration of the financial resources of the department. Northwestern University has undergone substantial growth and development in the basic biomedical sciences during the past decade which will be continued in the future in both the basic sciences and clinical departments. Candidates should send a curriculum vitae, a brief description of their research, teaching, and administrative experience, and the names of three references by September 30, 1986, to:

Dr. Robert H. Rownd, Chairman
Microbiology-Immunology Search Committee
Department of Molecular Biology
Northwestern University Medical and
Dental Schools
303 East Chicago Avenue
Chicago, Illinois 60611

SR. DIRECTOR — Research —

Genentech, Inc., a leader in the field of biotechnology, has an opening for an individual reporting directly to the Vice President of Research. Responsibilities include administrative functions and working with the research staff and business development staff to establish collaborations and investigating licensing and outlicensing opportunities. Acting in a liaison position, you will interact with Product Development teams and other science-based groups that interface with the Research Division.

The successful candidate will have an M.D. or PhD in addition to an MBA. Individual should have familiarity with biotechnology but feel equally comfortable being involved with the business aspects of Product Development.

Genentech offers an excellent competitive compensation and benefits package commensurate with experience. This is coupled with the opportunity to make a significant contribution to our organization. Please send resume to Human Resources Dept. #4288, Genentech, Inc., 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.



Genentech, Inc.
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Genentech, Inc.

Ph.D. Genetics/ Molecular Biology

Abbott Laboratories' breakthroughs in research and development have won us the undisputed world leadership position in medical diagnostics. The potential of this field is tremendous, a trend which industry experts predict will continue to grow. As our Diagnostics Division aggressively forges ahead, we now seek an individual to provide additional scientific support.

This position will work with an interdisciplinary team in the research and development of nucleic acid probes for the diagnosis of infectious diseases. The qualified candidate will have a Ph.D. in Genetics or Molecular Biology with at least 1-2 years postdoctoral training or equivalent.

Abbott is a \$3.5 billion leader headquartered in an attractive suburban area on the Lake Michigan shoreline 30 miles north of Chicago. In addition to a superior scientific environment, we provide excellent salary and comprehensive benefits including profit sharing and stock retirement plan. For confidential consideration, please send your resume with salary history to: **Sue Hart-Wadley/Corporate Placement, Dept. S-8/1.** Abbott is an Affirmative Action Employer.



M.S. CARDIOVASCULAR PHYSIOLOGIST TOXICOLOGY DIVISION

The LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company, is seeking candidates for a position in the Cardiovascular Physiology Laboratory within the Toxicology Division. Applicants must have a Masters degree in physiology or a related discipline and have experience in the measurement and analysis of hemodynamic parameters in conscious and anesthetized whole animal preparations.

The associate will participate in the design, preparation, execution, and analysis of studies utilizing state-of-the-art instrumentation, and will interact with researchers in the agricultural, pharmaceutical, and medical instrument systems research divisions of the company.

Experience with the programming and use of DEC PDP-11 and VAX laboratory computers for real-time data acquisition and analysis would be highly desirable.

Qualified candidates may send their resume to:



Ms. Lori E. Pivo
Personnel Representative LP991
Eli Lilly and Company
Greenfield Laboratories
P. O. Box 708
Greenfield, Indiana 46140

An Equal Opportunity Employer M/F

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- **Query:** If you have a question, place your address label here and attach this form to your letter.

- **To join or subscribe:** Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)

- **Membership rates** (individual only)
 - \$65 USA □ \$84 Canada □ \$87 Foreign
 - \$125 air-surface delivery via Holland

- **Subscriber rates**
 - \$98 USA □ \$122 Canada □ \$125 Foreign
 - \$163 air-surface delivery via Holland

- Payment enclosed □ Bill me later

Name Please print

Address

City State Zip

SA16R68

ATTACH
LABEL
HERE

ASSISTANT DIRECTOR SCIENTIFIC AND PRODUCT AFFAIRS

An immediate opening exists for an Assistant Director in the Department of Scientific Affairs and Biotechnology Liaison of the Searle Research and Development Division.

The ideal candidate for this staff position will hold the Ph.D. in Pharmacology or the Pharm. D. and will have 5-10 years experience in an academic or industrial setting. A focus toward therapeutics and comparative evaluation of drug products will be required to assist in the identification and screening of license and acquisition candidates. Analytic and technical writing skills are required for this position. Experience in licensing and acquisition activities is a definite plus.

If you are interested in joining a challenging and professional environment that is dedicated to making major contributions in health care, consider Searle. We offer an excellent salary and benefits package including savings plan. For consideration, send your resume to:

Barbara Gardner/#8ND-11
Searle Research & Development
Division of G.D. Searle & Co.
4901 Searle Parkway
Skokie, IL 60077

An Equal Opportunity Employer M/F/H

SEARLE

BS/MS SCIENTISTS

The LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company, is seeking candidates for a position in the Department of Drug Disposition. Applicants must have a bachelor or master degree; practical laboratory experience is desired.

DRUG METABOLISM

The primary responsibilities involve conducting experiments which define the absorption, distribution, metabolism and excretion of new drug substances in animals. Working knowledge of HPLC, GC, and spectroscopic techniques is required. Experimental procedures will include *in vivo* studies, the development of analytical procedures for the analysis of drugs in biological fluids, and the structural elucidation of metabolites.

Qualified applicants should send their resume to:



Mr. Robert F. Dowden
Personnel Representative
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285

An Equal Opportunity Employer M/F

Post Doctoral Position

Monsanto Company, Central Research Laboratories, is offering a Post Doctoral research opportunity in its cell culture and biochemistry department.

The position is for research work on the molecular biology of tumor cell factors which affect endothelial cells. The project involves the characterization of permeability mediators and angiogenesis factors. Such factors are important for the regulation of tumor growth and may also be important in normal processes such as wound healing and inflammation.

Candidates should have a recent Ph.D. in Molecular Biology or a related field and experience using techniques such as cDNA library preparations, *in vitro* translation, and gene cloning. The candidates should also be familiar with the isolation and characterization of micro-amounts of proteins.

Send resume and letter of reference to:
Michael J. Kunst; MONSANTO COMPANY; 800 N. Lindbergh Blvd.; Box 02G; St. Louis, MO 63167. An Equal Opportunity Employer M/F/H/V.

Monsanto

EPIDEMIOLOGIST

The U.S. Environmental Protection Agency (EPA) is seeking candidates for three (3) potential epidemiologist positions. The positions are located in the Health Effects Research Laboratory (HERL), Research Triangle Park, NC. The positions are permanent full-time at the GS 12-15 levels. The salary range is \$31,619 to \$67,940, depending upon qualifications.

HERL has a staff of about 325, over 100 of whom hold doctoral level degrees. The Laboratory has a diverse program under the management of seven Divisions, namely Developmental Biology, Biometry, Experimental Biology, Genetic Toxicology, Inhalation Toxicology, Neurotoxicology, and Toxicology and Microbiology, the latter of which is located in Cincinnati. The program includes *in vitro*, animal, human clinical, and epidemiological research, designed to address issues related to the health effects of air and water chemical pollutants, as well as biopesticides, water-borne microbes, and non-ionizing radiation.

The positions available include **PROGRAM DIRECTOR**, **TEAM LEADER**, and **STAFF EPIDEMIOLOGIST**. The epidemiology program is expanding and is focused on indoor and outdoor air pollutants, as well as water-borne toxic chemicals. The majority of the program is extramural, with HERL scientists playing the major role in program development and direction. These positions, as well as those of other epidemiologists on staff, are within the Biometry Division. The epidemiologists also collaborate with scientists in other Divisions to enable the development of novel approaches to environmental problems.

Successful candidates for all the positions will be expected to have an M.D. or a doctoral degree in a health-related field. U.S. citizenship is required.

Qualifications for the **STAFF EPIDEMIOLOGIST** position include a minimum of one (1) year of post-doctoral experience in epidemiology and evidence of expertise as indicated by publications in the peer-reviewed literature.

Qualifications for the **TEAM LEADER EPIDEMIOLOGY** position include:

1. At least four (4) years of post-doctoral research experience in epidemiology, preferably as related to the effects of chemicals.
2. National recognition in epidemiology as indicated by multiple senior-authored publications in the peer-reviewed literature, and invitations to participate in national meetings or scientific society activities.
3. At least two (2) years of experience in directing/supervising the work of others on epidemiology projects.
4. Ability to develop projects and lead in all phases of the projects.

Qualifications for the **PROGRAM DIRECTOR OF EPIDEMIOLOGY** include:

1. At least five (5) years of post-doctoral research experience in epidemiology, at least two (2) of which are in the epidemiology of chemical toxicants.
2. International recognition in environmental and/or occupational epidemiology as shown by publications in the peer-reviewed literature and invitations to participate in international meetings/panels on environmental and/or occupational epidemiology.
3. Experience in management of scientific staff (including a professional staff) and budgets. At least three (3) years of experience as a supervisor.
4. Proven ability to provide leadership in directing the development and progress of a creative and effective environmental epidemiology research program.

Forward curriculum vitae and names of three (3) references (prior to August 8, 1986) to:

Dr. F. Gordon Hueter, Director, HERL
c/o Cynthia Kelly, PMD (MD-29)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

STAFF FELLOW

(Less than 3 yrs. Professional Research Experience)
Salary Range: \$17,000 to \$34,269

SENIOR STAFF FELLOW

(3-7 yrs. Research Experience)
Salary Range: \$20,688 to \$38,422

The Clinical Oncology Program of the Division of Cancer Treatment, National Cancer Institute, seeks Staff Fellow or Sr. Staff Fellow with credentials in chemical synthesis (organic, organometallic, or coordination chemistry). Candidate must have or will soon complete the Ph.D. degree.

Previous experience in synthesis and/or work with radionuclides is helpful. Position involves synthesis of ligands to bind radionuclides to monoclonal antibodies at the National Institutes of Health, Bethesda, Maryland.

For further information, contact:

Dr. Otto A. Gansow, Head
Inorganic & Radioimmune Chemistry Section
Radiation Oncology Branch
Clinical Oncology Program
Division of Cancer Treatment
National Cancer Institute
National Institutes of Health
Building 10, Room B3B69
Bethesda, Maryland 20892
Telephone: (301) 496-5936

AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

The University of Michigan Medical School, Department of Anesthesiology, has a **FACULTY POSITION** available for an applicant with a strong commitment to research in anesthesiology both at the clinical and basic science level. Ph.D. and/or M.D., as well as experience in basic science research as it pertains to anesthesiology. Reply to: **Box 141, SCIENCE. A non-discriminatory, Affirmative Action/Equal Opportunity Employer.**

STANFORD UNIVERSITY DEPARTMENT OF MEDICAL MICROBIOLOGY FACULTY POSITION: MOLECULAR OR IMMUNO- PARASITOLOGIST

The Department of Medical Microbiology in the Stanford University School of Medicine is seeking a faculty member at the level of assistant or associate professor of medical microbiology. Individuals with a research interest in parasitology, preferably with experience in immunoparasitology, or the molecular biology of parasites, holding either a Ph.D. or M.D. degree, are invited to apply.

The successful candidate will join a vigorous faculty of microbiologists and immunologists within the department. It is expected that he/she will also become an active participant in the recently established interdepartmental Division of Geographic Medicine which is in the final stages of formalizing ties with a medical center in a developing country.

Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.

The deadline for submission of applications is 15 September 1986. Interested candidates should send their curriculum vitae, together with one copy of two recent publications, an outline of their future research interests, and names of three references to:

**Lorrain Sargent, Search Secretary
Department of Medical Microbiology
Stanford University School of Medicine
Stanford, California 94305-5402**

FUNGAL MOLECULAR BIOLOGIST

The Department of Plant Pathology, University of California, Davis, invites applications for an 11-month (1-month vacation), tenure-track position, 25 percent teaching, 75 percent research, at the assistant professor level. Responsibilities include research on the genetics, molecular, and cellular biology of filamentous fungi; research related to the molecular basis of pathogen-plant interactions is encouraged. Teaching includes participation in team-taught graduate course in molecular genetics of fungi; supervision/advising students in graduate programs in genetics, biochemistry, microbiology, or plant pathology. Participation in university and public service is expected.

Applicants should have a Ph.D. in a biological science relevant to the assigned area of research and teaching. Postdoctoral experience related to the assigned area of research is desired. Applicants should submit: (i) curriculum vitae, (ii) list of published work and reprints, (iii) a statement of teaching and research interests, and (iv) names and addresses of three references to:

**T. Kosuge
Chairman, Search Committee
Department of Plant Pathology
University of California, Davis, CA 95616
Telephone: 916-752-0318/0300**

Application deadline: 1 October 1986

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

NEUROSCIENTIST—POSTDOCTORAL/RESEARCH ASSOCIATE: Experienced in extracellular recording and microstimulation techniques in mammalian CNS for studies on the neurophysiology of brainstem autonomic neurons and the control of respiration. NIH funding, 4 years. Submit curriculum vitae and names of two references to: **Dr. Richard Davies, Animal Biology, 211E VET/6046, University of Pennsylvania, Philadelphia, PA 19104. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

DEPARTMENT OF BIOCHEMISTRY MICHIGAN STATE UNIVERSITY

The Department of Biochemistry seeks applicants for tenure-track faculty positions at academic ranks commensurate with experience. Applicants are sought from well-trained biochemists with highly productive research records. We encourage applicants from investigators working toward the mechanistic understanding of fundamental questions in protein biochemistry, cellular and molecular biology, and plant biochemistry.

The Department of Biochemistry has a large faculty conducting research in a wide variety of areas including physical biochemistry, enzymology, plant biochemistry, intermediary metabolism, toxicology, immunochimistry, and cellular-, molecular-, developmental, and neurobiology, affording its members both a stimulating scientific atmosphere and good opportunities for research collaboration. The department occupies a modern research building with well-equipped research laboratories, and faculty may be appointed in any of four colleges (Natural Science, Agriculture and Natural Resources, Human Medicine, and Osteopathic Medicine).

Applicants should have demonstrated productivity and evidence of potential for independent research. In order to assure consideration, applications should be received preferably by 1 September 1986. Applicants should have a curriculum vitae, a description of research accomplishments and future interests, and three letters of reference on their behalf sent to: **Dr. Jack Preiss, Chairperson, Department of Biochemistry, Box S, Michigan State University, East Lansing, Michigan, 48824. Michigan State University is an Equal Opportunity/Affirmative Action Employer.**

TRUDEAU INSTITUTE INC. ** SEARCH REOPENED **

Positions are available for qualified **IMMUNOLOGISTS** interested in establishing independent programs in the following areas:

- Basic cellular immunology
- Tumor immunology
- Transplantation immunology
- Immunity to infectious and parasitic diseases

Preference will be given to applicants interested in immunoregulation.

Appointment will be made at the level of **assistant or associate professor**, depending on the amount of postdoctoral experience and publication record. No teaching is required. The successful applicant will be guaranteed from 3 to 5 years of support, depending on the level of appointment, but will be expected to compete for outside funding. Campus housing is available.

The Trudeau Institute is a not-for-profit, pure research institute that specializes in studying the immunology of host defense mechanisms directed against a broad spectrum of diseases. It is located on the shore of Saranac Lake, in the Adirondack mountains, 8 miles from Lake Placid.

Send curriculum vitae and the names of three references to:

**Robert J. North, Ph.D., Director
Trudeau Institute Inc.
P.O. Box 59
Saranac Lake, NY 12983**

POSTDOCTORAL ASSOCIATE required for project concerned with development of a subunit vaccine. A parasitologist with experience in immunology, biochemistry or molecular genetics an advantage. Work involves identification and cloning of protective parasite antigens of coccidia (*Eimeria*) with monoclonal and polyclonal antisera. Closing date for applications 30 September 1986. Apply: **Dr. P. L. Long, Department of Poultry Science, University of Georgia, Athens, GA 30602.**

POSTDOCTORAL POSITION in biochemistry available immediately in New York City area to investigate the effects of toxic metal and selenium compounds on DNA replication and transcription. Send curriculum vitae and names of three references to: **Dr. Gerald D. Frenkel, Department of Biological Sciences, Rutgers University, 101 Warren Street, Newark, NJ 07102. Rutgers University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

MAMMALOGIST. Applications are invited for the position of **assistant curator** in the Division of Mammals at Field Museum of Natural History. The career-track position chiefly involves research and curatorial responsibilities, but may entail occasional participation in the museum's public programs. Applicants must have Ph.D., with primary interest in, and commitment to, systematic mammalogy in the broadest sense, as well as to the curation and growth of a cosmopolitan collection. Numerous opportunities exist for involvement in graduate education. Preference will be given to candidates with the ability to perform innovative specimen-based research and develop an active field program. Salary is commensurate with experience. Send application, including curriculum vitae, statement of research experience and goals, reprints, and letters of recommendation from three referees before 15 November 1986 to: **Hymen Marx, Chairman, Search Committee, Division of Amphibians and Reptiles, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605.**

An Equal Opportunity Employer

NUTRITION SCIENCE. The Department of Food Science and Nutrition, University of Minnesota, seeks applicants for full-time, tenure-track assistant professor, to develop independent research program in nutrition science related to intermediary metabolism of macronutrients, teach courses, and advise graduate and undergraduate students. Some support for research provided, but ability to attract external funding essential for success. Salary competitive, with attractive fringe benefits. Start 1 January 1987, or as arranged. Must have Ph.D. in nutritional biochemistry or related area. Postdoctoral experience helpful, but not required. Department occupies own building complex on Twin Cities campus of the university, with strong research and teaching programs in both food science and nutrition, and active cooperation with medicine, biochemistry, animal science, and other units. Apply by 15 September 1986, with detailed résumé and names of at least three references to: **Dr. E. F. Caldwell, Head, Department of Food Science and Nutrition, University of Minnesota, 1334 Eckles Avenue, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer, and specifically invites and encourages applications from women and minorities.**

POSTDOCTORAL POSITION available in the laboratory of **Dr. Robert E. Lanford** for molecular investigation of an endogenous human retrovirus isolated from human teratocarcinoma cells. The investigation encompasses sequence analysis of the retroviral genome, the effect of teratocarcinoma cell differentiation on retroviral expression, and possible expression of retrovirus sequences in human tumors. Candidates should have a background in recombinant DNA techniques including: cloning, DNA sequencing, and mRNA isolation and analysis. Send curriculum vitae and names of three references to: **Personnel Manager, Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, Texas 78284.**

An Equal Opportunity Employer, M/F.

POSTDOCTORAL POSITIONS. Protein chemists/mechanistic enzymologists interested in structure/function of regulated enzymes involved in hepatic lipid metabolism or plant carbon assimilation. Biochemical studies will include site-directed modification and sequence determination of regulatory and active site peptides. Annual appointment is renewable (5 years possible) and includes full fringe benefits package. Send curriculum vitae and names of three references to: **Dr. H. M. Miziorko, Biochemistry Department, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226. Equal Opportunity/Affirmative Action Employer, M/F/H.**

POSTDOCTORAL POSITIONS in application of recombinant DNA technology to bacterial, fungal, higher plants, and animal systems. Previous experience desirable, but not essential. Send curriculum vitae and names of three references to: **Dr. P. E. Kolattukudy, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340. Equal Opportunity/Affirmative Action Employer.**



American Red Cross

BIOMEDICAL RESEARCH + DEVELOPMENT

Outstanding scientists are sought to fill two open positions in our Biochemistry Laboratory. These individuals are expected to pursue independent research within the broad area of the chemistry and molecular biology of human plasma proteins. Peptide synthesis, microsequencing, and the application of recombinant DNA technology to problems of protein structure and function are of particular interest. Candidates must be able to establish (or have already established) a program which can attract grant support. Send C.V., bibliography, and the phone numbers of three references to:

Kenneth Ingham, Ph.D.
American Red Cross
Biochemistry Laboratory
9312 Old Georgetown Road
Bethesda, MD 20814

An Equal Opportunity Employer
M/F/V/H

Analytical Biochemist Drug Metabolism



An equal opportunity employer

The Drug Metabolism Department of Pfizer Central Research is seeking a PhD scientist, with or without postdoctoral experience, who has expertise in the isolation, identification and analysis of xenobiotics.

Your responsibilities will include the design, implementation and interpretation of disposition studies to support the discovery and development of new animal health products. Additionally, you will coordinate this work with project team members through effective oral and written communications.

While expertise in contemporary analytical methods for residues of organic compounds is required, knowledge of pharmacokinetics and xenobiotic metabolism is desirable.

Excellent equipment and support systems are available in our new facilities. If you are interested and qualified for this position, which offers a sound professional and career opportunity, please send a resume and description of research accomplishments to: Mr. Charles P. Norris, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.

SCIENTIST

Advanced degree or equivalent in life science, health physics, radiation ecology or similar field required. Must have valid drivers license. Training or experience conducting floral and fauna studies, health physics or radiation ecology, radiotelemetry, environmental toxicology desired. Will conduct directed research projects monitoring of vertebrate populations, flora and fauna studies of waste repository and preparing synthesis reports of findings. Base location will be Santa Barbara, California.

Refer to opening #86-23

Qualified candidates send resume to:



EG&G Energy Measurements, Inc.
Attn: Technical Recruiting
130 Robin Hill Road
Goleta, California 93117

U.S. Citizenship Required
An Equal Opportunity Employer

MOLECULAR BIOLOGIST/ BACTERIAL PHYSIOLOGIST

GENEX CORPORATION is seeking a Ph.D. with experience in *Bacillus subtilis* molecular biology or bacterial protein secretion to join a leading group working to develop *B. subtilis* host/vector systems for the production and secretion of proteins. This position offers an exciting opportunity to contribute to the development of the next generation of bacterial systems for recombinant gene expression.

A minimum of 2 years post-doctoral experience is preferred, although exceptional candidates with less experience will be considered. Training in molecular biology, biochemistry, or bacteriology is required, plus demonstrated expertise in recombinant DNA techniques, protein biochemistry, and bacterial genetics or physiology. The level and salary of the position will be determined based on background and experience.

GENEX provides an outstanding research environment, excellent facilities and a strong commitment to the publication of scientific results. A curriculum vitae, together with a brief description of your scientific background and the names of three professional references should be submitted to:



Dept. MB
16020 Industrial Drive
Gaithersburg, MD 20877
An Equal Opportunity Employer

POSITIONS OPEN

MOLECULAR BIOLOGISTS, IMMUNOLOGIST, AND CHEMIST

SOUTH DAKOTA STATE UNIVERSITY in an increased emphasis on basic research, is looking for outstanding candidates with a track record in extramural funding to conduct vigorous research programs and participate in graduate training in the following fields:

One or two **MOLECULAR BIOLOGISTS** who may relate to one or more of several subdisciplines,

One **IMMUNOLOGIST** experienced in contemporary techniques, and

One **CHEMIST** with extensive industrial experience for conducting research and fostering innovative links with industry.

These tenure-track positions require a Ph.D. or equivalent degree and may be filled at any of the professorial levels. Primary emphasis is on research with minor teaching responsibilities in advanced level courses. Salary negotiable.

Brookings is an east central South Dakota community with easy access to the university and recreational pursuits, including lakes and a sunny four-season climate. The community is recognized for its high quality of life, excellent schools, and extensive parks/recreational activities in a crime-safe environment.

If these positions match your abilities and career goals, we invite you to explore our expanded research ventures. Candidates should submit résumé, description of research interests and capabilities together with the names of four references to: **Dr. C. P. Sword, Director of Research, South Dakota State University, Brookings, South Dakota 57006. Telephone: 605-688-4181.** Deadline for application is 15 September 1986, or until positions are filled.

South Dakota State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION is available immediately for studies on bases of an autoimmune vitiligo and associated immunologic and endocrinologic defects in an avian model. Background in immunobiology, endocrinology, or pigment cell biology desired. Starting salary \$18,000, plus fringe benefits. Closing date: 1 October 1986. Send résumé and three references to: **Dr. J. R. Smyth, Jr., Department of Veterinary and Animal Sciences, University of Massachusetts, Amherst, MA 01003. An Affirmative Action/Equal Opportunity Employer.**

POSTGRADUATE RESEARCH ASSOCIATE position available for an individual interested in studying the organization and composition of the membranes of malaria-infected red cells. Preference will be given to recent Ph.D.'s with background in lipid extraction and analysis and/or membrane protein biochemistry. Send curriculum vitae, letters of reference, and description of research interests to: **Professor Irwin W. Sherman, Department of Biology, University of California, Riverside, CA 92521.**

POSTDOCTORAL RESEARCH ASSOCIATE. Biochemistry of contractile proteins, including characterization of cardiac subfragment-1 in normal and disease animal models. Send résumé to: **Dr. Leonard Stein, Division of Cardiology, HSC T-17, Room 020, State University of New York (SUNY)—Stony Brook, Stony Brook, NY 11794.**

SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK number 158.

UNIVERSITY OF NEBRASKA MEDICAL CENTER (UNMC) MOLECULAR BIOLOGY LABORATORY

POSTDOCTORAL RESEARCH ASSOCIATE for research on isolation and molecular characterization of a novel human retrovirus from South America, including the determination of relationship of this virus to AIDS-RV and other human retroviruses. Participate in ongoing studies of AIDS and AIDS retrovirus biology, EBV, and oncogenes is encouraged. Training and/or strong background in virology and molecular biology including gene cloning and sequencing required. Curriculum vitae or inquiries to: **David J. Volsky, Ph.D., UNMC, Department of Pathology and Microbiology, 42nd and Dewey, Omaha, NE 68105. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH SCIENTIST/ PLANT MOLECULAR BIOLOGY

The Molecular Biology Department of Zoecon Research Institute is seeking candidates for its postdoctoral associates program. The areas of research projects in plant molecular biology. The areas of research include fundamental aspects of: gene regulation, developmental biology, cell biology, genetic transformation, tissue and cell culture, plant virology, and plant physiology.

Zoecon Research Institute, a subsidiary of Sandoz Crop Protection Corporation, has been a leader in innovative biological research for over 18 years. Our research laboratories are located in Palo Alto, California, in close proximity to Stanford University. Research by postdoctoral associates is conducted in an open academic-like environment, which strongly encourages publication and interaction with other scientists throughout the world.

Applications for the postdoctoral associates program can be made by sending your curriculum vitae to: **Dr. Dan Hess, Director of Plant Sciences, Zoecon Research Institute, 975 California Avenue, Palo Alto, CA 94304. We are an Equal Opportunity Employer.**

PROFESSOR, MARINE FISHERIES

The Fisheries Research Institute, School of Fisheries, University of Washington, invites applications for a tenure-track position available January 1987 at the **assistant, associate, or full professor** level, depending on qualifications. The appointment is intended to enhance the institute's non-salmonid marine fisheries research program and will involve teaching and research, as well as interaction with industry and with state, federal, and international organizations as appropriate. The successful candidate will be expected to (i) develop and lead an active research program in marine fisheries, helping to provide a stable source of funding for addressing fundamental research problems relating to production and management of marine fisheries; (ii) provide leadership in enhancing the institute's role as a link between basic research in fisheries science, the fisheries management community, and industry; (iii) teach a course in area of expertise; and (iv) advise students pursuing graduate degrees in the marine fisheries area.

The position is to be supported from a combination of state and research funds. Candidates must have a Ph.D. degree or equivalent in fisheries science or related field, a strong quantitative background and demonstrated research and publication experience.

Applicants will provide curriculum vitae, a statement of research interests, reprints of three publications, and names and addresses of four references. Submit application materials by 15 September 1986 to: **Chairman, Marine Fisheries Professor Search Committee, School of Fisheries, WH-10, University of Washington, Seattle, WA 98195.**

The University of Washington is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

RESEARCH ASSOCIATE. Immediate position available to set up and direct laboratory for immunohistochemistry of the lower urinary tract. Laboratory to become an integral part of ongoing, multidisciplinary, basic, and clinical investigation into lower urinary tract function and dysfunction. Successful candidate must be either recent Ph.D. or M.S. with several years of experience in standard H&E, as well as immunohistology. Electron microscopy experience helpful. Salary commensurate with experience. Send curriculum vitae and name, address, and telephone number of three references to: **Dr. Michael R. Ruggieri, University of Pennsylvania, Division of Urology, 5 Silverstein/H.U.P., 3400 Spruce Street, Philadelphia, PA 19104.**

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RESEARCH/MANAGEMENT POSITION. Specialist in NMR instrumentation and techniques, Ph.D. level, sought to manage the operation and development of a new in vivo NMR Research Center. Imaging and spectroscopy instrumentation to include 2T whole-body, 2T 45-cm, and 4.7T 40-cm systems and computer facilities. Research opportunities. Send résumé, publication list, and references to: **Dr. Cherie L. Fisk, Office of Research Services, Building 1, Room 13, National Institutes of Health, Bethesda, MD 20892.**

POSITIONS OPEN

PROFESSOR, SALMONID FISHERIES

The Fisheries Research Institute, School of Fisheries, University of Washington, invites applications for a tenure-track position available January 1987 at the **assistant, associate, or full professor** level, depending on qualifications. The position is to be supported from a combination of state and research funds. The candidate must have a Ph.D. in fisheries science or related field, with demonstrated research and publications experience in salmonid fisheries production and management. The successful candidate will be expected to (i) continue and expand the institute's active grant and contract research in this field, helping to provide a stable source of funding to address fundamental research problems relating to the production and management of salmonid fisheries; (ii) provide leadership in enhancing the institute's role as a link between basic research in fisheries science, the fisheries management community, and industry; (iii) teach a course each year in salmonid fisheries biology and management; and (iv) advise students pursuing graduate degrees in the salmonid fisheries area. Applicants should send curriculum vitae, a statement of research interests, reprints of three publications, and names and addresses of four references by 15 September 1986 to: **Chairman, Salmonid Fisheries Professor Search Committee, Fisheries Research Institute, WH-10, University of Washington, Seattle, WA 98195.**

The University of Washington is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.



PROJECT ASSOCIATE NATIONAL RESEARCH COUNCIL BOARD ON AGRICULTURE

GENETICS, PLANT, OR ANIMAL BREEDING. A project associate is sought for a new, 3-year study on managing total global genetic resources for agriculture. This senior staff officer position will be associate to an NRC senior fellow who will direct the study. Duties will include assisting in overall planning for the study; overseeing data collection, analysis, and interpretation; planning meetings and coordinating study activities with the committee chairman and members; preparing background papers and drafting the committee's report. Minimum requirements are a Ph.D. or equivalent level of training and experience, plus an additional 5 years of experience beyond the doctorate level in an area of genetics or plant or animal breeding. Also required are a general knowledge of molecular genetics and demonstrated experience in science writing. Knowledge of agricultural research institutions, worldwide genetic collections, and agricultural policy is desirable. Send letter of application, curriculum vitae, and names of three references to: **Position number 320.031S, National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE. Position available for M.D. and/or Ph.D. to participate in an ongoing study of lipid metabolism in retinitis pigmentosa. Must have thorough understanding of lipoprotein metabolism. Salary competitive. Please send curriculum vitae and names of three references to: **Robert E. Anderson, Ph.D., M.D., Cullen Eye Institute, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE—(Theoretical condensed matter physics). To conduct general basic theoretical research on optics of matter: Raman scattering and other linear and non-linear electromagnetic properties of solids with particular emphasis on many-body effects, wave propagation and scattering; surface optics including surface polaritons effects of large random roughness and disorder. Ph.D. physics/major in solid state theory. Four years of experience required. Forty hours, 5 days per week. Salary: \$27,600 per year. D.O.T. code 023.061.014. Mail résumé to: **New York State job service order number NY8023328, 97-45 Queens Boulevard, Rego Park, NY 11374.**

SENIOR MEDICAL WRITER

An opportunity exists for an experienced medical writer at Warner-Lambert/Parke-Davis. This position is in the Department of Medical Writing. Responsibilities include preparation of research reports of clinical trials, Investigator's Brochures, regulatory summary documents, and oral presentations and manuscripts. Minimum requirements include a Master's degree in a biological science and at least 3 years experience as a medical writer. In addition, excellent verbal communication and interpersonal skills are necessary. Interested, qualified candidates should submit curriculum vitae and a sample writing to:

Ms. Laura Alberts
Human Resources Representative
Pharmaceutical Research Division
2800 Plymouth Road
Ann Arbor, MI 48105

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DIRECTOR OF MEDICAL WRITING

The Warner-Lambert Pharmaceutical Research Division is seeking a highly motivated, experienced medical communicator to direct the Medical Writing Department within clinical research on a worldwide basis. Responsibilities include generation of research reports of all clinical trials conducted by the company worldwide, and all necessary summary documents for IND's, CSA's, NDA's and MAA's. In addition, this individual must be experienced in the development of labelling for new products and preparation of manuscripts to meet both scientific and marketing needs. Coordination of these activities on a worldwide basis is essential. The qualified candidate will have at least 10 years of relevant experience in the pharmaceutical industry, outstanding verbal and written communication skills, and outstanding interpersonal skills. Significant management/administrative experience is also required. Qualified applicants should submit their curriculum vitae along with salary history to:

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POSITIONS OPEN

RESEARCH ASSOCIATE IN PLANT MOLECULAR GENETICS: Ph.D. in molecular or plant genetics with working knowledge of contemporary techniques. Research to focus on developing methods for understanding the genetic bases for trait performance in southern pines. Salary up to \$25,000 per year. Send résumé, transcripts, and names of three references to: **Dr. R.J. Newton, Forest Science Department, Texas A&M University, College Station, Texas 77843-2135.** *An Equal Opportunity/Affirmative Action Employer.*

THE U.S. GEOLOGICAL SURVEY (USGS), GEOLOGIC DIVISION, BRANCH OF PALEONTOLOGY AND STRATIGRAPHY, announces a vacancy for **research geologist** in Quaternary palynology and paleoclimatology. Duties include paleoclimatic and paleoenvironmental investigations and original research involving Quaternary pollen, spores, and acid-resistant algae, and plant macrofossil remains from lake sediments and packrat middens within and surrounding the Great Basin region. The position will be located in Denver, Colorado. Applicants should have Ph.D. in geology or equivalent experience and must be U.S. citizens. Anticipate that the position will be at the GS-12 through 15 (\$31,000 to \$52,000) level. For further information, contact: **J. Platt Bradbury, U.S. Geological Survey, Denver Federal Center, Mail Stop 919, Box 25046, Denver, Colorado 80225; telephone: 303-236-5666.** Application must include Standard Form 171 (SF-171), Application for Federal Employment, available from above address or any Federal Personnel Office. Application must be received by: **J. P. Bradbury by 15 September 1986.** *The USGS is an Equal Opportunity Employer.*

SCIENTIST. Genentech, Inc., a leader in the field of biotechnology, has an opening in our medicinal analytical chemistry group for a scientist to develop new analytical methods for use within Genentech. These methods will be evaluated by testing with current separation problems. The successful candidate will have a Ph.D. in analytical chemistry or any other relevant degree and at least 2 years of postdoctoral research applying chromatography theory and development of chromatographic separations.

Genentech offers competitive salaries and comprehensive benefits. Please send résumé to: **Human Resource Department 0370, Genentech, Inc., 460 Point San Bruno Boulevard, South San Francisco, CA 94080.** *An Equal Opportunity Employer.*

SENIOR MOLECULAR GENETICIST DEPARTMENT OF BIOLOGY THE JOHNS HOPKINS UNIVERSITY

The Johns Hopkins University is seeking applicants for professor of molecular genetics in the Department of Biology. Candidates must be independent investigators and possess an excellent and sustained scholarly record in research. Applicants working in all areas of molecular genetics, from prokaryotic to mammalian genetics, will be considered regardless of specific expertise. Applicants should submit a letter describing their research interests and background, current curriculum vitae, and names and addresses of four references to: **Dr. Philip E. Hartman, Chairman, Molecular Genetics Search Committee, Department of Biology, The Johns Hopkins University, Charles and 34th Streets, Baltimore, MD 21218.** The closing date is 15 September 1986. *The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

SOIL MICROBE ECOLOGIST. Assistant scientist to investigate nonchemical strategies for reducing crop losses caused by soilborne pathogens, including bacteria, fungi, and nematodes. Ph.D. in a biological science. Applicant should have a strong background in plant pathology and botany, microbiology, soil science, quantitative methods, a good understanding of population dynamics of organisms competing in the wild, and must have a proven ability to measure and interpret biological phenomena in the field. Send curriculum vitae, undergraduate and graduate transcripts, and three letters of reference before 15 September 1986 to: **Dr. Donald E. Aylor, Chief, Department of Plant Pathology and Ecology, The Connecticut Agricultural Experiment Station, Box 1106, New Haven, Connecticut 06504.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The Physiology Department at the **Armed Forces Radiobiology Research Institute (AFRRI)** is seeking candidates for **STAFF RESEARCH POSITIONS.** We will consider applicants in both **NEUROBIOLOGY** (with interests in neuronal, glial, or CNS function) and **CELL PHYSIOLOGY** (with interests in ion channels in nonneuronal cells). Candidates should have a strong publication record and have demonstrated the potential for independent research. The Physiology Department studies the physiological and biophysical mechanisms of radiation insult to cellular, organ, or whole animal systems. This neurobiology position, available immediately, is a 4-year term civil service position, with a salary range of \$30,000 to \$40,000. (Reference MSVA 73/86.) The cell physiology position will be available in September 1986, is a 1-year appointment renewable up to 4 years, salary range is \$26,000 to \$34,000. (Reference AFRRI 19/86.) A position for a research biologist/research physiologist to assist in experiments on epithelial tissue is also available. This position is available immediately, is a 1-year appointment renewable up to 4 years, salary range is \$17,000 to \$28,000. (Reference AFRRI 18/86.) To apply for these civil service positions, send curriculum vitae and/or SF-171, and reprints of representative research to: **Armed Forces Radiobiology Research Institute, Civilian Personnel Office, Bethesda, Maryland 20814-5145,** by 3 September 1986. Indicate announcement MSVA 73/86, AFRRI 18/86, or AFRRI 19/86. Direct inquiries to: **Dr. David Livengood, Department Chairman, telephone 202-295-1212; or Joann Kelleher, Personnel Management Specialist, telephone 202-295-1426.** U.S. citizenship is required. *The AFRRI is an Equal Opportunity Employer.*

TUMOR CELL BIOLOGIST AND DEVELOPMENTAL BIOLOGIST

The Department of Urology at Northwestern University Medical School has two openings at the Ph.D. level (preferably with postdoctoral experience) at the rank of research associate. The candidate for the tumor cell biologist must be knowledgeable in procedures to monitor in vivo and in vitro tumor cell invasion and metastasis. This person will work in the Cancer Center at the Medical School. The candidate for the developmental biologist should have a background in renal morphogenesis and urogenital embryology. This person will work at the Children's Memorial Hospital. Application including curriculum vitae and names of three references should be sent to: **Dr. John T. Grayhack, Professor and Chairman, Department of Urology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Illinois 60611.** *Northwestern University is an Equal Opportunity/Affirmative Action Employer.*

TWO RESEARCH ASSOCIATE POSITIONS, Ph.D. in basic biomedical sciences, minimum of 3 years of postdoctorate experience in matrix protein isolation, purification, antibody production, or molecular biology; to participate in group research effort on tumor metastasis, wound healing, and diabetic complications. Salary range \$19,896 to \$22,000. Contact: **L. T. Furcht, Box 609 UMHC, 420 Delaware Street S.E., Minneapolis, MN 55455,** by 31 August 1986.

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

VETERINARY ONCOLOGIST. To aid in the clinical evaluation of animal tumor patients for entry into experimental protocols of radiation combined with other modalities. The person selected will be expected to develop quantitative methods for histopathologic analysis of animal tumors. Applicants must hold a D.V.M. and a Ph.D. in pathology. Training in radiation biology is desirable. The individual selected will also collaborate with scientists studying response of normal tissues to radiation. The major responsibility will be to describe the pathogenesis of radiation injury. The position will be a special appointment (nontenure-track) assistant professor at \$28,000 annual salary. Please send curriculum vitae and three letters of recommendation to: **Dr. Edward L. Gillette, Comparative Oncology Unit, Colorado State University, Fort Collins, Colorado 80523.** Applications must be received by 19 September 1986. *CSU is an Equal Employment Opportunity/Affirmative Action Employer.* Office: 314 Student Services Building.

POSITIONS OPEN

TOXICOLOGIST/HEALTH EFFECTS SCIENTIST

TRC, a rapidly growing, dynamic environmental engineering and consulting firm, is seeking to expand its environmental health staff in our headquarters in Connecticut. Operating nationwide, we have been identifying, defining, and solving environmental health problems for industry and government for over 30 years.

TRC has an immediate opening for a toxicologist/health effects scientist to assist in the evaluation of environmental and exposure data and in the preparation of risk assessments. Educational background should include a M.S. in toxicology or the health sciences and a strong undergraduate training in chemistry. Experience in dealing with water and air quality criteria is desirable. Good writing and communication skills are a requirement. Benefits provided. Send résumés to: **Susan Linger, TRC-ECL, 800 Connecticut Boulevard, East Hartford, CT 06108.**

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ANNOUNCEMENT

ELS-I DATABASE

The U.S. Environmental Protection Agency announces the availability of data from the National Surface Water Survey—Eastern Lake Survey.* The Eastern Lake Survey was a synoptic, autumn survey of 1798 lakes in the Northeast, Upper Midwest, and Southeast regions of the United States suspected to contain large numbers of low alkalinity lakes. The database includes lake and watershed physical characteristics, in situ measurements, and analytical laboratory results. The complete data set is available on a standard 9-track computer tape, or a subset of key variables is available on a 1.2 MB PC-DOS 5-1/4" floppy disk. A description of the data set, list of available formats, and order forms can be obtained by sending a postcard to:

**Chief, Air Branch
U.S. Environmental Protection Agency
Environmental Research Laboratory
200 SW 35th Street
Corvallis, OR 97333**

All requests must be received before 30 September 1986. Thereafter, the National Technical Information Service (NTIS) will distribute these tapes with an additional handling fee.

*R. A. Linthurst, D. H. Landers, J. M. Eilers, D. F. Brakke, W. S. Overton, E. P. Meier, and R. E. Crowe. Characteristics of Lakes in the Eastern United States. Volume I: *Population Descriptions and Physico-Chemical Relationships.* EPA-600/4-86-0071, U.S. Environmental Protection Agency, Washington, DC, 1986.

SYMPOSIUM

SYMPOSIUM ON ATMOSPHERIC METHANE: Formation and fluxes from the biosphere/geosphere. Hosted by the Division of Geochemistry, American Chemical Society (ACS), during 5 through 10 April 1987 meeting in Denver. Sessions include: atmospheric methane, fluxes, biogeochemistry of formation and oxidation, and isotopes. Abstract deadline is 5 November 1986 (ACS format). For information and abstract submission contact: **Dr. Ron Oremland, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, CA 94025.** Telephone: 415-323-8111, extension 2343.

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ASSOCIATE / ASST. SCIENTIST—requires BS or MS in the biological sciences, and related work experience. Working knowledge of recombinant DNA and tissue culture techniques preferred.

ASSOCIATE / ASST. SCIENTIST—requires BS or MS in a biological science and related work experience. Working knowledge of protein analysis and microbiological techniques preferred.

☐ **Immunologists/Cell Biologists**
with 0-4 years' of relevant experience.

SENIOR SCIENTIST—requires Ph.D. and experience developing immunochemical and immunobiological assays needed to study lymphokines and immune regulation, lymphocyte differentiation and proliferation. Experience in tumor immunology/ oncology, receptor structure/function relationships, and model systems preferred.

ASSOCIATE / ASST. SCIENTIST—requires BS or MS and experience in tissue culture methodology, and immunochemical and immunobiological techniques.

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