

Following a brief introduction, the book's five chapters consider two distinct themes, otter biology and conservation, with an emphasis on the latter. I found chapters 2 and 6, which respectively review the biology of European otters and all other species, to be the most interesting and substantive parts of the book. These chapters are well-organized, telegraphic accounts that appear both thorough and accurate. Chapters 3 through 5 mainly concern population status and the conservation of European otters. Here the authors raise a wealth of issues that are presented and discussed objectively and fairly, despite the fact that their own sympathies often show through. They do an admirable job of weaving together relevant biological facts, historical records, and information from other species or other components of riverine systems in their analysis of why otters have fared well in some areas and poorly in others. The approach may be useful in developing conservation strategies for other wildlife species. However, excessive detail is given on several matters of only local interest for which cause and effect relationships remain uncertain. As is often the case with poorly known populations of wild animals, post factum explanations for the decline of otters usually are rather speculative.

This book is an accounting of facts rather than a synthesis. I was mildly disappointed not to find more comparisons among species, especially since much comparative information is contained in the book. Even though a stronger comparative and synthetic emphasis would have attracted the attention of scientists with broader disciplinary interests, as written this book is an important account of the Lutrinea.

J. A. ESTES
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Institute of Marine Sciences,
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Books Received

Abortion. The Continuing Controversy. Carol C. Collins and Oliver Trager, Eds. Facts on File, New York, 1986. vi, 185 pp., illus. \$24.95. An Editorial on File Book.

Acid Deposition and the Acidification of Soils and Waters. J. O. Reuss and D. W. Johnson. Springer-Verlag, New York, 1986. viii, 119 pp., illus. \$36.

Advances in Cancer Control. Health Care Financing and Research. Lee E. Mortenson, Paul F. Engstrom, and Paul N. Anderson, Eds. Liss, New York, 1986. xx, 480 pp., illus. \$74. Progress in Clinical and Biological Research, vol. 216. From a meeting, Washington, DC, March 1985.

Advances in the Biology of Turbellarians and Related Platyhelminthes. Seth Tyler, Ed. Junk, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xviii, 357 pp., illus. \$112. Developments in Hydrobiology, 32. From a symposium, Fredericton, New Brunswick, Canada, Aug. 1984. Reprinted from *Hydrobiologia*, vol. 132 (1986).

The Age of Manufactures. Industry, Innovation and Work in Britain 1700-1820. Maxine Berg. Oxford University Press, New York, 1986. 378 pp., illus. Paper, \$10.95.

Algebraic Methods in Semantics. Maurice Nivat and John C. Reynolds, Eds. Cambridge University Press, New York, 1985. xvi, 634 pp., illus. \$95. Based on a seminar, Fontainebleau, France, June 1982.

Biological Monitoring of Environmental Contaminants (Plants). M. A. S. Burton. Prepared with the support of the United Nations Environment Programme by the Monitoring and Assessment Research Centre, University of London, London, 1986. xii, 247 pp., illus. Paper, \$30. Executive Summary. ii, 5 pp. A Technical Report (1986). MARC Report, no. 32.

Biotechnology. Potentials and Limitations. S. Silver, Ed. Springer-Verlag, New York, 1986. x, 313 pp., illus. \$31. Life Sciences Research Report, 35. From a workshop, Berlin, March 1985.

Biotechnology and Ecology of Pollen. David L. Mulcahy, Gabriella Bergamini Mulcahy, and Ercole Ottaviano, Eds. Springer-Verlag, New York, 1986. xxiv, 528 pp., illus. \$46. From a conference, Amherst, MA, July 1985.

Brain Edema. Y. Inaba, I. Klatzo, and M. Spatz, Eds. Springer-Verlag, New York, 1986. xx, 682 pp., illus. \$110. From a symposium, Tokyo, Nov. 1984.

The Breadth and Depth of Continuum Mechanics. A Collection of Papers Dedicated to J. L. Ericksen on His Sixtieth Birthday. Invited by C. M. Dafermos, D. D. Joseph, and F. M. Leslie. Springer-Verlag, New York, 1986. xii, 778 pp., illus. Paper, \$63. Reprinted from *Archive for Rational Mechanics and Analysis*, vols. 82-90 (1983-1985).

Building Models for Conservation and Wildlife Management. A. M. Starfield and A. L. Bleloch. Macmillan, New York, and Collier Macmillan, London, 1986. xiv, 253 pp., illus. \$34.95. Biological Resource Management.

The Cactus Primer. Arthur C. Gibson and Park S. Nobel. Harvard University Press, Cambridge, MA, 1986. x, 286 pp., illus. \$39.95.

Chemical Waste. Handling and Treatment. K. R. Müller et al., Eds. Springer-Verlag, New York, 1986. xii, 360 pp., illus. \$76.

The Coccidian Parasites (Protozoa, Apicomplexa) of Artiodactyla. Norman D. Levine and Virginia Ivens. University of Illinois Press, Urbana, 1986. vi, 266 pp., illus. Paper, \$19.95. Illinois Biological Monographs, 55.

Complications of Viral and Mycoplasmal Infections in Rodents to Toxicology Research and Testing. Thomas E. Hamm, Jr., Ed. Hemisphere, New York, 1986. xvi, 191 pp., illus. \$49.95. Chemical Industry Institute of Toxicology Series. From a conference, Raleigh, NC, Feb. 1983.

Computer Graphics and Molecular Modeling. Robert Fletcher and Mark Zoller, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1986. x, 145 pp., illus. Paper, \$29. Current Communications in Molecular Biology. From a meeting, Cold Spring Harbor, NY, Dec. 1985.

Concurrent Programming in Ada. Alan Burns. Cambridge University Press, New York, 1985. xiv, 241 pp., illus. \$27.95. The Ada Companion Series.

Contemporary Classics in the Life Sciences. James T. Barrett, Ed. ISI Press, Philadelphia, 1986. 2 vols. Vol. 1, Cell Biology. xviii, 368 pp. \$39.95. Vol. 2, The Molecules of Life. xviii, 282 pp. \$39.95. Contemporary Classics in Science.

Contrast Analysis. Focused Comparisons in the Analysis of Variance. Robert Rosenthal and Ralph L. Rosnow. Cambridge University Press, New York, 1985. x, 107 pp., illus. \$29.95; paper, \$10.95.

Contribution of Clusters Physics to Materials Science and Technology. From Isolated Clusters to Aggregated Materials. J. Davenas and P. M. Rabette, Eds. Nijhoff, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xvi, 646 pp., illus. \$100. NATO Advanced Science Institutes Series E, no. 104. From an institute, Cap d'Agde, France, June 1982.

Creativity. Genius and Other Myths. Robert Weisberg. Freeman, New York, 1986. xii, 169 pp., illus. \$21.95; paper, \$9.95. A Series of Books in Psychology.

Crops I. Y. P. S. Bajaj, Ed. Springer-Verlag, New York, 1986. xviii, 608 pp., illus. \$125. Biotechnology in Agriculture and Forestry, vol. 2.

Crystal Growth Processes. J. C. Brice. Blackie, Glasgow, and Halsted (Wiley), New York, 1986. x, 298 pp., illus. \$61.95.

Dynamics of Extinction. David K. Elliott, Ed. Wiley-Interscience, New York, 1986. x, 294 pp., illus. \$49.95. From a conference, Flagstaff, AZ, Aug. 1983.

Earth and the Human Future. Essays in Honor of Harrison Brown. Kirk R. Smith, Feridun Fesharaki, and John P. Holdren, Eds. Westview, Boulder, CO, 1986. xii, 258 pp., illus. \$17.85.

East-West Tensions in the Third World. Marshall D. Shulman, Ed. Norton, New York, 1986. x, 243 pp., illus. Paper, \$6.95.

The Ecological Implications of Body Size. Robert Henry Peters. Cambridge University Press, New York, 1986. xii, 329 pp., illus. Paper, \$16.95. Cambridge Studies in Ecology. Reprint, 1983 edition.

Electromagnetism for Engineers. An Introductory Course. P. Hammond. 3rd ed. Pergamon, New York, 1986. xii, 187 pp., illus. \$35; paper, \$10.75. Applied Electricity and Electronics Series.

Embryogenesis in Angiosperms. A Developmental and Experimental Study. V. Raghavan. Cambridge University Press, New York, 1986. xiv, 303 pp., illus. \$39.50. Developmental and Cell Biology Series.

Energy and Resource Quality. The Ecology of the Economic Process. Charles A. S. Hall, Cutler J. Cleveland, and Robert Kaufman. Wiley-Interscience, New York, 1986. xxiv, 577 pp., illus. \$47.50. Environmental Science and Technology.

Energy Use in Rural Kenya. Household Demand and Rural Transformation. Richard Hosiier. Beijer Institute, Stockholm, and Scandinavian Institute of African Studies, Uppsala, Sweden, 1985. xii, 177 pp., illus. SKr 75. Energy, Environment and Development in Africa, 7.

Fertilizer Technology and Use. O. P. Engelstad, Ed. 3rd ed. Soil Science Society of America, Madison, WI, 1985. xx, 633 pp., illus. \$40; members' first copy, \$32.

Fieser and Fieser's Reagents for Organic Synthesis. Vol. 12. Mary Fieser. Wiley-Interscience, New York, 1986. x, 643 pp., illus. \$47.50.

Filters Against Folly. How to Survive Despite Economists, Ecologists, and the Merely Eloquent. Garrett Hardin. Penguin, New York, 1986. x, 240 pp. Paper, \$6.95. Reprint, 1985 edition.

For-Profit Enterprise in Health Care. Committee on Implications of For-Profit Enterprise in Health Care, Institute of Medicine. Bradford H. Gray, Ed. National Academy Press, Washington, DC, 1986. xxiv, 556 pp., illus. \$39.50.

Forensic Science Progress. Vol. 1. H. Mukoyama et al. Springer-Verlag, New York, 1986. x, 172 pp., illus. \$53.

Fossil Arthropods as Living Animals. The Royal Society of Edinburgh, Edinburgh, 1985. ii pp. + 101-399, illus. Paper. \$50. Transactions of the Royal Society of Edinburgh: Earth Sciences, vol. 76, parts 2 and 3. From a symposium, Edinburgh, Oct. 1984.

Foundations for a National Biological Survey. Ke Chung Kim and Lloyd Knutson, Eds. Published in cooperation with Holcomb Research Institute and Illinois Natural History Survey by the Association of Systematics Collections, c/o Museum of Natural History, University of Kansas, Lawrence, 1986. xii, 215 pp., illus. Paper, \$18. Based on a symposium, 1985.

Frontiers in Bioinorganic Chemistry. Antonio V. Xavier, Ed. VCH, Deerfield Beach, FL, 1986. xiv, 736 pp., illus. \$92.50. From a conference, Algarve, Portugal, April 1985.

Fundamentals and Applications of Chemical Sensors. Dennis Schuetzle and Robert Hammerle, Eds. American Chemical Society, Washington, DC, 1986. x, 394 pp., illus. \$74.95. ACS Symposium Series, 309. Based on two symposiums, 1983 and 1984.

Fundamentals of Hot Wire Anemometry. Charles G. Lomas. Cambridge University Press, New York, 1986. xii, 211 pp., illus. \$52.50.

A Genetic Switch. Gene Control and Phage λ. Mark Ptashne. Cell Press, Cambridge, MA, and Blackwell, Palo Alto, CA, 1986. x, 128 pp., illus. Paper, \$16.95.

Ghostwriting and Other Essays. Eugene Garfield. ISI Press, Philadelphia, 1986. xx, 540 pp., illus. \$35. Essays of an Information Scientist, vol. 8: 1985.

Global Resources and International Conflict. Environmental Factors in Strategic Policy and Action. Arthur H. Westing, Ed. Oxford University Press, New York, 1986. xii, 280 pp., \$29.95. Based on a symposium, Stockholm, Oct. 1985.

Group Structure of Gauge Theories. L. O'Rai-fearraigh. Cambridge University Press, New York, 1986. x, 172 pp., illus. \$34.50. Cambridge Monographs on Mathematical Physics.

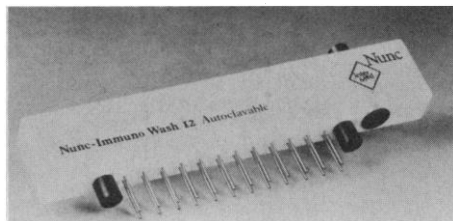
Image and Mind. Stephen Michael Kosslyn. Harvard University Press, Cambridge, MA, 1986. xviii, 500 pp., illus. Paper, \$10.95. Reprint, 1980 edition.

Laser Optoacoustic Spectroscopy. V. P. Zharov and V. S. Letokhov. Springer-Verlag, New York, 1986.

(Continued on page 1336)

Assay Plate Washer

The Nunc-Immuno Wash is designed to wash 96-well plates used in connection with ELISA/EIA and RIA. It may be used for plates with U-shaped wells and for plates with flat-bottomed wells. The Nunc-Immuno Wash is based on a unique double cannulae principle (patent pending) that ensures quick and efficient washing. It is sup-



plied in 8- and 12-channel versions for simultaneous washing of the corresponding number of wells. It only requires connections to a washing solution and to a vacuum; there are no electrical connections. The Nunc-Immuno Wash is autoclavable at 121°C. InterLab. Circle 530.

Flatbed Recorder

Model SS-100F is a single-pen, flatbed recorder with 100-mm calibrated chart width and the convenience of disposable fiber tip pens. The SS-100F uses either roll chart paper or sprocketed 24-cm chart cards for ease of recording and storage of data. Its electrical and mechanical design provide portability and accuracy of ± 0.5 percent and a sharp response of 0.5-second full scale. The SS-100F can easily be moved from one location to another and can even be wall-mounted when bench space is at a premium. In addition, it may be used in the field where no AC power is available if ordered with the 12-V DC input power option. The SS-100F has six chart speeds (2.5, 5, and 10 mm per second or minute) and will measure six standard DC voltage ranges (10 mV, 50 mV, 100 mV, 1 V, and 5 V full scale). The recorder can measure temperature directly when ordered with the optional thermocouple or RTD inputs. PrimeLine. Circle 545.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

Preparative HPLC System

The Prep-350 gradient chromatograph is a dedicated preparative system that handles high-performance columns for large-scale purification, isolation, and separation of biomolecules. With the system, the user may scale up methods from 3- or 5- μ m analytical columns to large-scale preparative columns requiring high flow rates. The system handles up to 100-gram samples and is applicable to biomolecular sample preparation. In the pharmaceutical laboratory, the Prep-350 handles large quantity preparation preceding further development or clinical trials; and in the biotechnology laboratory, it is used for extracting materials from large-volume fermentation broth. The device fully utilizes five separation techniques, including reversed-phase chromatography, fast affinity chromatography, hydrophobic interaction chromatography, ion exchange chromatography, and size exclusion chromatography. An integral six-way fractionator automates the collection of fractions. The Prep-350 system has a flow range of 5 to 350 ml/min for binary gradient operation and up to 700 ml/min for isocratic operation. The pressure rating of 4000 pounds per square inch extends over the full range of available flow rates, and the Prep-350 works with high-performance columns up to 4 inches in diameter for greater sample loading and throughput. The methodology may be transferred from analytical to preparative columns and the user has the choice of selecting fully automatic or manual operation to meet specific applications such as working with very costly or rare materials. Beckman Instruments, Altex Division. Circle 547.

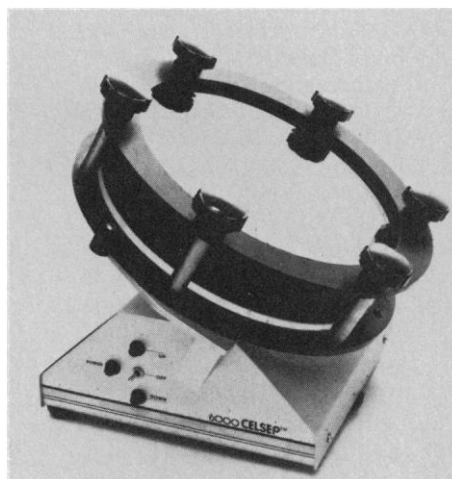
Scanning Laser Microscope

The WSI-1000R is a scanning laser microscope. Using a laser beam focused to a diffraction-limited spot in a confocal microscope configuration, the WSI-1000R obtains higher resolution than an ordinary optical microscope. All functions are computer-controlled, with image analysis and enhancement algorithms included. Image display on a high resolution color monitor is available in false color, gray scale, or γ -deflection line images with or without hidden line elimination. The specimen is moved in a raster scan on precision translation stages under a fixed laser beam. Very large specimens may be used (up to 8 inches in diameter). The WSI-1000R is designed for semiconductor measurement. The low power laser does not damage samples and laser penetration depth may be varied by choos-

ing one of three laser wavelengths. Biological studies include spatially resolved fluorescence, fluorescence lifetimes, and measurements on living cells. The microscope is also useful in forensic science, for porosity studies, and as a wide range densitometer. International Scientific Instruments. Circle 543.

Chamber for Cell Separations

An autoclavable Celsep chamber for users of the Celsep cell separating system has been introduced. This option, which fits the standard Celsep motor base, is designed espe-



cially for users who require sterile conditions. The Celsep fractionates heterogeneous populations of cells into functionally distinct subpopulations. The Celsep system uses the principle of velocity sedimentation combined with chamber reorientation to separate cells at unit gravity. Most heterogeneous cell suspensions, such as human leukocytes, bone marrow cells, and mouse spleen cells, can be separated with high reproducibility. Wescor. Circle 546.

Literature

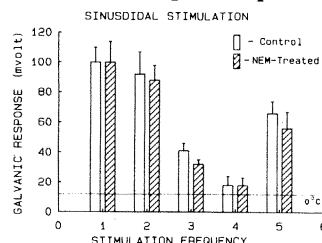
Image Analysis features the Darwin system that comprises five programs: Density Scan, Area, Topographer, Weed Watcher, and Tracker. Colorado Video. Circle 550.

Software Directory lists graphics software packages for HP graphics plotters. There are more than 200 systems listed. Hewlett-Packard. Circle 551.

Constant Temperature Baths characterizes a line of laboratory apparatus. Design specifications and details are included for immersion circulators, a temperature programmer, circulating heating baths, flow and dip coolers, and a temperature-controlled circulating system. Techne. Circle 552.

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(Continued from page 1334)

x, 327 pp., illus. \$69. Springer Series in Optical Sciences, vol. 37.

Learning and Emotion. A Biological Synthesis. vol. 1, Evolutionary Processes. Peter Livesey. Erlbaum, Hillsdale, NJ, 1986. xii, 312 pp., illus. \$32.50.

The Leukotrienes. Their Biological Significance. Priscilla J. Piper, Ed. Raven, New York, 1986. xvi, 219 pp., illus. \$54. A Biological Council Symposium (1985).

Life on Earth. The First Cell How Arisen? Hans Krause. Published by the author, P.O. Box 61, 7000 Stuttgart 41, FRG, 1986. 204 pp., illus. Paper, \$10.

Lisp Lore. A Guide to Programming the Lisp Machine. Hank Bromley. Kluwer, Boston, 1986. xvi, 244 pp., illus. \$42.50.

Lithic Illustration. Drawing Flaked Stone Artifacts for Publication. Lucile R. Addington. University of Chicago Press, Chicago, 1986. xviii, 139 pp., illus. \$34; paper, \$14.95. Prehistoric Archeology and Ecology.

Mast Cell Differentiation and Heterogeneity. A. Dean Befus, John Bienenstock, and Judah A. Denburg, Eds. Raven, New York, 1986. xxii, 426 pp., illus. \$69.50. From a symposium, Vancouver, British Columbia, Feb. 1985.

Mathematics and Physics of Neutron Radiography. A. A. Harms and D. R. Wyman. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xiv, 163 pp., illus. \$39.50. Reidel Texts in the Mathematical Sciences.

Methods of Protein Microcharacterization. A Practical Handbook. John E. Shively, Ed. Humana, Clifton, NJ, 1986. xx, 456 pp., illus. \$64.50. Biological Methods.

Mitochondrial Physiology and Pathology. Gary Fiskum, Ed. Van Nostrand Reinhold, New York, 1986. xvi, 207 pp., illus. \$46.50. Van Nostrand Reinhold Advanced Cell Biology Series.

The Trichomycetes. Fungal Associates of Arthropods. Robert W. Lichtwardt. Springer-Verlag, New York, 1986. xii, 343 pp., illus. \$67.

Women, Feminism and Biology. The Feminist Challenge. Lynda Birke. Methuen, New York, 1986. xii, 210 pp., illus. Paper, \$11.95.

Personnel Placement

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Environmental/Organic Chemist Ph.D. 1980. Experience in pesticide research, biochemistry, environmental fate, toxicology, data analysis, and hazardous waste. Knowledgeable of regulatory process. Excellent skills in communication with laymen/policy makers. Looking for regulatory, administrative, advocacy, or technical interpretation position in government, public interest group, or industry. Salary flexible. Box 157, SCIENCE. X

Scientist-Inventor-Researcher. Ph.D. 1975. Postdoctoral 1978. Patents, publications in diverse fields. Outstanding technical leader. Excellent communication skills, problem-solver. Research team builder and leader. Experience in industry, government and academia directing R&D programs, developing and patenting sophisticated analytical instruments, and developing methods and procedures. Creative, innovative. Seeking challenging research position. Box 159, SCIENCE. X

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Laboratory Technician: M.A. 1985: Physiology/biochemistry. Thesis research: radioassay of NADase activity from endometrium of hormone-treated ovariectomized rats. Seven years of laboratory experience. Seeking full-time position with educational opportunities. Jack Braley, 816 East Cleveland, Ponca City, OK 74601. X

Marine Biologist, 1984. Twelve years of field and laboratory experience in biological oceanography, zooplankton and invertebrate biology, ichthyology, and fish physiology. Special interest in chemical analysis and biological effects of organic contaminants. Teaching experience as assistant professor. Recent supervisor for marine environmental laboratory. Seeks academic position with teaching and research responsibilities. Box 162, SCIENCE. X

Polish Coagulation/Fibrinolysis Technician desires employment in the United States. Author or co-author of 20 original papers. Curriculum vitae, bibliography, and references available on request. Box 164, SCIENCE. X

Toxicologist, D.V.M., Ph.D., D.A.B.T. Many years of research experience in biochemical toxicology of organophosphate compounds, HPLC, cholinergic elements, receptor binding, radioenzymatic assays, high-energy phosphate nucleotides, protein metabolism, and pharmacokinetics. Excellent publications. Seeks academic, industrial, or regulatory position. Available immediately. Box 165, SCIENCE. 9/19, 26

Toxicologist, Ph.D. (M.S. industrial hygiene): Experienced in animal surgery, clinical chemistry, in vitro models, radioisotopes, electrophoresis, and histochemistry. Seeks industrial position. Box 160, SCIENCE. 9/19, 26

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James W. Mackenzie, M.D.
Chairman, Department of Surgery
UMDNJ-Robert Wood Johnson Medical School
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POSITIONS OPEN

ASSISTANT PROFESSOR IN BIOLOGICAL CHEMISTRY JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

The Department of Biological Chemistry at the Johns Hopkins University School of Medicine invites applications for a tenure-track position at the assistant professor level. The department is looking for candidates with a commitment to excellence in research and teaching in biochemistry. Applicants should submit curriculum vitae, list of publications, including representative reprints, three letters of recommendation, and a summary of research plans to:

Dr. Don W. Cleveland
Search Committee Chairperson
Department of Biological Chemistry
The Johns Hopkins University School of Medicine
Baltimore, MD 21205

To ensure full consideration, applications should be received by 15 November 1986. *Equal Opportunity/Affirmative Action Employer.*

University of Washington—The Department of Botany invites applications for a tenure-track position in **PLANT PHYSIOLOGY**, at the **ASSISTANT PROFESSOR** level. Postdoctoral experience is desired. Candidate must establish a vigorous research program. Teaching will include undergraduate botany/biology and plant physiology, and a graduate course in an area such as: plant biochemistry, water relations, mineral nutrition, and photosynthesis. For timely consideration, send curriculum vitae, statement of research goals and graduate teaching interests, and the addresses of three persons from whom we can request references, by 15 November 1986 to: **Dr. R. B. Walker, Department of Botany, University of Washington, Seattle, WA 98195.** *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF INTERNAL MEDICINE position available. Teaching duties in rheumatology, internal medicine, and immunology and have at least 3 years of experience in molecular biology. Responsibilities include laboratory research on molecular aspects of T-cell receptor, clinical responsibilities in rheumatology, and internal medicine. Must have established publication record in rheumatology, immunology, and related fields. Send curriculum vitae with bibliography to: **Dr. Peter E. Lipsky, Director, Harold C. Simmons Arthritis Research Center, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9030.** *An Equal Opportunity Employer.*

Tenure-track **ASSISTANT/ASSOCIATE PROFESSOR IN SOIL BIOCHEMISTRY.** Research areas may include interaction of organic compounds with soil constituents and the degradation and mobilization of organics with their transformation products in the soil environment. Salary commensurate with qualifications and experience. **APPLICATION DEADLINE: 10 October 1986.** Applications to: **Department of Plant and Soil Sciences, French Hall, University of Massachusetts, Amherst, MA 01003.** *The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.*

BIOCHEMIST—Full-time faculty position available in the Department of Orthopaedic Surgery, University of California, Davis, School of Medicine. Qualifications include: Ph.D. or equivalent in biochemistry or a related discipline (such as cell biology); demonstrated competency in the field of connective tissue biochemistry; documented evidence of past research and creative work, and demonstrated ability to obtain significant research grants. Responsibilities include: development of a research program related to skeletal biochemistry; instruction of medical students and residents in the fields of biochemistry related to orthopaedics. A letter outlining research and teaching experience, along with a curriculum vitae, and the names of five references should be directed to: **R. Bruce Martin, Ph.D., Director of Orthopaedic Research, Department of Orthopaedics, TB 150, University of California, Davis, CA 95616.** This position will be open until filled, but not later than 31 December 1986. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT RESEARCH NEUROIMMUNOLOGIST. Department of Neurology, University of California, San Francisco. Candidate required to have at least 2 years of postdoctoral experience. This position requires extensive experience in acetylcholine receptor biochemistry, monoclonal antibody production (including anti-active site antibodies), immunocytochemistry, as well as the application of these techniques to the modification of signal transduction in vitro and in vivo. Candidate must have experience in signal transduction in the nervous system specifically involving protein kinases and a mastery of kinetic measurements. Experience in developmental studies in the nervous system including application of molecular biology techniques to developmental neurobiology is required, specifically, messenger RNA preparation and translation in vivo and in vitro. Duties will include membrane protein purification, production of monoclonal antibodies, immunohistochemistry, and injection of proteins into living cells in culture. Salary range: \$34,600 to \$43,200; level to be commensurate with experience. Please submit complete curriculum vitae, including list of publications and names of three references, by 30 October 1986 to: **Dr. Adrienne S. Gordon, Ernest Gallo Clinic and Research Center, San Francisco General Hospital, Building 1, Room 101, San Francisco, CA 94110.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE/FULL PROFESSOR OF BIOCHEMISTRY

THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE AND HEALTH SCIENCES

Applications are invited for a senior tenure-track position at the associate or full professor rank which will become available by January or July 1987. We are seeking an outstanding scientist and teacher with a creative and productive research program and a proven record of independent extramural support who is looking for a new home in an exciting and dynamic department in downtown Washington.

Letters of application should be received by 30 October and should include applicant's curriculum vitae, and three letters of recommendation addressed to: **Allan L. Goldstein, Ph.D., Professor and Chairman, Department of Biochemistry, The George Washington University, School of Medicine and Health Sciences, 530 Ross Hall, 2300 Eye Street, NW, Washington, DC 20037.**

CLINICAL NUTRITION: The Department of Food Science and Nutrition, University of Minnesota, Twin Cities Campus, is seeking applicants for a full-time, tenure-track faculty position as assistant professor, to hold additional appointment in Department of Medicine, and share existing practice in clinical nutrition. Require M.D. degree, Board-eligible in internal medicine, with nutrition coursework and/or training, appropriate experience in hospital nutrition support and in research, and interest in teaching undergraduate and graduate students. Prefer Board-certified, with M.S. or Ph.D. in nutrition or closely related field in addition to M.D., completion of recognized fellowship program with nutrition component, and demonstrated ability to teach and attract research funding. Appointee to develop independent clinical nutrition research program, teach graduate course, and participate in teaching normal and clinical nutrition to medical and undergraduate students. Salary competitive. Attractive fringe benefit plans. Start immediately or as arranged. Applications evaluated beginning 3 October 1986. Send detailed résumé including at least three references to: **Dr. P. B. Swan, 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.*

EVOKED POTENTIALS SPECIALIST. HARD MONEY position (involving monitoring visual or somatosensory or auditory EVOKED POTENTIALS using NICOLET PATHFINDER II) available for a recent Ph.D. or M.S. (with experience). Research facilities available. SALARY: \$22,200 to \$31,000, plus benefits. Salary and faculty title commensurate with qualification. Send résumé to: **Dr. H. Sapru, Neurosurgery, MSB H-592, New Jersey Medical School, Newark, NJ 07103.** Telephone: 201-456-5876.

POSITIONS OPEN

ASSOCIATE PROFESSOR OF PHYSICS in **Experimental Condensed Matter or Surface Physics**. The Department of Physics at the University of Texas at El Paso has a tenure-track position available and anticipates additional vacancies for September 1987. At this time, the department desires an individual who has a successful research record with the ability to establish and act as leader of a new experimental research group to support a program in the chemistry and physics of materials: condensed matter physics (surface physics) is the preferred area of research. The successful candidate is expected to be involved in selecting and integrating future faculty replacements into the group. Salary is open and will be commensurate with qualifications. The candidate should be available for January or June 1987. Teaching and research experience in the university environment is highly desirable. Send summary of research interests along with a letter of application, credentials, and names and addresses of three references to: **R. E. Bruce, Chairman, Department of Physics, University of Texas at El Paso, El Paso, TX 79968-0515**. Application deadline is 24 October 1986. *The University is an Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY FACULTY POSITION

The Department of Chemistry of the University of South Carolina invites applications for a 12-month, tenure-track appointment as assistant professor of biochemistry. The Biochemistry Section of the department also serves as the biochemistry unit in the School of Medicine. Applicants should have postdoctoral experience, a record of productive research, and a strong commitment to both teaching and research. Research area: open. Start date: spring-summer 1987. Senior candidates with outstanding credentials are invited to apply for a higher level appointment. Previous applicants should update existing files. Send curriculum vitae with summary of research accomplishments and plans, and three letters of recommendation to: **Dr. John W. Baynes, Biochemistry Search Committee, Department of Chemistry, University of South Carolina, Columbia, SC 29208**. Deadline: 31 October 1986. *Equal Opportunity/Affirmative Action Employer.*

NATIONAL INSTITUTE ON AGING NATIONAL INSTITUTES OF HEALTH

The Biomedical Research and Clinical Medicine Program is seeking applicants for the position of Health Scientist Administrator (Biological Sciences) to serve as director for its Nutrition and Metabolism Program. Specific responsibilities include developing and managing a program of basic and clinical research grants and contracts, with major emphasis on development of new scientific initiatives. Applicants should have completed all requirements for an M.D. or Ph.D. (or equivalent doctoral) degree in the biological or allied health sciences. Applicants must have experience which demonstrates ability to work independently in planning and conducting research. The position will be filled through the Civil Service or Commissioned Corps of the U.S. Public Health Service. The grade of the position is a GS-14 with a salary range of \$44,430-\$57,759 depending on the qualifications of the applicant selected. Physicians may be eligible for a bonus of up to \$10,000 above these levels. Benefits include a retirement plan, health and life insurance, sick and annual leave. Duty Station—Bethesda, Maryland. U.S. Citizenship required.

Any applicant not currently employed in the Federal Government as a Health Scientist Administrator will be required to obtain an eligible notice of rating. Submit application (SF-171), curriculum vitae, and bibliography to:

**Ms. Sara Benesch
Personnel Office
National Institute on Aging
Building 31, Room 2B63
National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892**

Applications must be received or postmarked by November 1, 1986. Call Ms. Benesch at (301) 496-5347 for further information.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

BIOCHEMISTS PHARMACEUTICAL RESEARCH

The Warner-Lambert/Parke Davis Pharmaceutical Research Division has an opening for a biochemist in our Pharmacology Department.

This individual will assist in the development and application of biochemical techniques such as receptor binding and neurotransmitter uptake assays to be used in new drug discovery programs. Requires knowledge of pharmacology and biochemistry and training in biochemical techniques related to drug discovery. A willingness to work with laboratory animals is essential. Some knowledge of statistical analysis and computerized data reduction is desirable.

Qualifications: B.S. degree or equivalent with 0 to 5 years of experience or M.S. degree or equivalent with 0 to 3 years of experience.

Qualified applicants should send résumé/curriculum vitae in confidence to:

**S. Hultquist
Human Resources Representative
WARNER-LAMBERT/PARKE DAVIS
Pharmaceutical Research Division
2800 Plymouth Road
Ann Arbor, MI 48105
*Equal Opportunity In Action***

UNIVERSITY OF MARYLAND, Department of Chemistry and Biochemistry invites applications for a tenure-track position in **BIOCHEMISTRY**. Successful candidates must have a strong background in both chemistry and biochemistry, demonstrate the potential to develop an outstanding research program, and participate actively in the Biochemistry Program. Applicants should send curriculum vitae, a detailed description of research plans, and arrange for three letters of recommendation to be sent to: **Professor Debra Dunaway-Mariano, Chairman, Faculty Search Committee, Department of Chemistry and Biochemistry, University of Maryland, College Park (UMCP), MD 20742**. For full consideration, applications should be received by 15 November 1986. *UMCP is an Equal Opportunity/Affirmative Action Employer.*

EXECUTIVE DIRECTOR. Association of Systematics Collections invites applications from professionals holding Ph.D. in systematics and evolutionary biology to serve as its chief executive officer in Washington, DC. Duties include: representing constituency to Congress, federal agencies, and other organizations; program development and implementation; and supervising business operations of office (finances, fund raising, and administrative support for organization). Salary: \$40,000 to \$45,000, plus benefits. Anticipated starting date 15 November 1986. By 15 October 1986, send letter of application, curriculum vitae, and names/telephone numbers of three references to: **ASC, 3rd Floor, 730 11th Street NW, Washington, DC 20001-4584**. *Equal Opportunity Employer.*

AMHERST COLLEGE CHEMISTRY. Amherst College has available a regular **FACULTY POSITION**, to take effect 1 July 1987, for a Ph.D. with a strong background and interest in experimental physical chemistry or chemical physics. The appointment will preferably be at the assistant professor (tenure-track) level, but more senior applicants may be considered. This position represents an excellent professional opportunity for a person committed to both research and teaching at an institution dedicated to undergraduate education. Teaching responsibilities customarily include instruction in departmental courses at both elementary and advanced levels. Involvement in extra-departmental interdisciplinary courses and programs is encouraged. The successful candidate will be expected to develop an active research program in which undergraduates can participate. Applicants should submit a résumé, names of three references, and a brief description of both teaching and research ideas to: **Dr. J. N. Kushick, Department of Chemistry, Amherst College, Amherst, MA 01002**, by 1 November 1986. *Amherst College is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

EASTERN CONNECTICUT STATE UNIVERSITY

GENERAL BIOLOGIST. Tenure-track assistant professor position to begin fall 1987. Candidate will teach a broad range of introductory laboratory and lecture courses, one course in area of expertise, supervise undergraduate research, and maintain a program of professional development. Ph.D. in one of the biological sciences and lecture and laboratory teaching experience at the college level required. Submit résumé, salary history, transcripts, and three letters of reference to: **Dr. Michael Gable, Department of Biology, Eastern Connecticut State University, Willimantic, CT 06226**, by 14 November 1986.

Eastern Connecticut State University is an Equal Opportunity/Affirmative Action Employer.

CHEMISTRY

The University of Maryland University College is seeking faculty to teach chemistry and math, including differential equations, to Malaysian students in Malaysia. College level teaching experience and U.S. citizenship required; Ph.D. and Asian experience preferred. Start October 1986 or January 1987. Twelve-month appointment, possibly renewable. Shorter appointment possible. School allowances cannot be paid. Send curriculum vitae, transcripts, and three letters of reference to: **Dr. Richard Schreck, Director, International Programs, The University of Maryland University College, College Park, MD 20742**. *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR, COAL EXTRACTION AND UTILIZATION RESEARCH CENTER

Applications are invited for the position of director of the Coal Extraction and Utilization Research Center, available on or about 1 January 1987. A doctorate degree is required in science or engineering with recognition in an academic discipline based on scholarship of demonstrated quality. Applicants must demonstrate achievements in grantsmanship, administration, and knowledge of energy and coal-related technologies. Responsibilities include the development and coordination of research activities related to the center's mission with emphasis on securing and managing external funds, developing the center to assist academic units in interactions and effective liaisons with energy and coal-related industries, organizations and agencies, and to coordinate coal-related instructional activities with academic deans. Inquiries should be directed to: **Chair, Search Committee, Office of Research Development and Administration, Southern Illinois University, Carbondale, IL 62901**. Closing date: 17 November 1986. *An Equal Opportunity/Affirmative Action Employer.*

FACULTY OPENINGS AT THE EVERGREEN STATE COLLEGE. Evergreen is a public, liberal arts college emphasizing intensive interdisciplinary study and team teaching. Three openings for 1987 to 1988 academic year: (i) **Organic Chemistry**, potentially renewable position, requiring related background in environmental or biochemical studies or computer instrumentation. Closing date is 1 November. (ii) **Biological or Organic Chemistry**. One year of sabbatical replacement to teach organic chemistry or to team teach in integrated program combining biochemistry with molecular to organism level biology. Closes 1 November. (iii) **Ecologist**. One year position to team teach in intermediate level integrated environmental studies program on terrestrial and marine habitats. Preferred background in ecology, zoology, or botany. Extensive field experience required. Closes 2 October. Minimum degree required for all positions is masters degree; Ph.D. preferred. Salary based upon experience grid; maximum is \$28,000. Closing date is 1 November. To apply send résumé, an essay of educational philosophy, a syllabus exhibiting your approach to teaching, two letters of recommendation from colleagues and two from students, plus teaching evaluations to: **Dean Barbara Smith, The Evergreen State College, Olympia, WA 98505**. Materials must address teaching ability, disciplinary and interdisciplinary competence, collaborative abilities, and ability to work with students of diverse backgrounds. *Evergreen is an Affirmative Action/Equal Employment 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 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

Postdoctoral Scientist Medicinal Chemistry

The Department of Medicinal Chemistry of Smith Kline & French Laboratories is seeking a Postdoctoral Scientist to work in an environment designed to foster innovative research and promote personal and professional growth. Publication of research findings in leading journals and full interaction with the scientific community are strongly encouraged.

Candidates are required to have:

- A Ph.D. in Medicinal or Organic Chemistry with 0 to 2 years postdoctoral experience.
- Practical knowledge of modern spectral and chromatographic techniques.
- Excellent oral and written communication skills.

An interest in synthesis and the relationship between chemical structure and biological activity is essential.

The successful candidate will:

- Participate in the design and synthesis of molecules that modulate polyphosphoinositide metabolism and its biochemical effects.
- Interact closely with scientists of various disciplines involved in the drug discovery process.
- Apply the principles of organic chemistry and molecular modeling to derive structure-activity correlations.

Postdoctoral positions are normally of two years duration.

We are located near Valley Forge, PA in a new state-of-the-art research facility and offer an excellent salary, benefits and relocation package. Please forward your c.v. to George P. Kissell, Jr., Manager, Personnel Relations, SK&F Laboratories, 1590 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

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RESEARCH MANAGER MARINE BIOLOGY/MOLECULAR GENETICS/MICROBIOLOGY

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in cellular and molecular aspects of marine biology including molecular genetics and/or microbiology. The sponsored research is conducted primarily at universities and government or industrial laboratories by leading scientists in the field. This is a Civil Service position at the GM-13, 14 or 15 grade level (\$37,599-\$67,940), depending on qualifications.

The successful candidate will be responsible for designing and implementing new basic research programs in the above areas by identifying new research opportunities and successfully communicating the need for such research to Navy management. The incumbent receives and evaluates proposals and selects for funding those which will contribute to the strongest research program. The incumbent maintains close liaison with investigators, monitoring research results for information of importance to Navy interest and communicating those results to appropriate Navy activities. This position provides the challenge and opportunity to have a creative and significant impact on the direction and quality of research conducted at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have (1) a Ph.D. or equivalent in marine biology, molecular genetics, microbiology or a closely related field and at least one year of professional experience or (2) acquired a minimum of three years of progressively responsible professional experience. Demonstrated research experience with emphasis on marine biology and molecular genetics is preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to:

OFFICE OF THE CHIEF OF NAVAL RESEARCH
Civilian Personnel Division, Code 01242P
ATTN: Announcement #86-82 (S)
800 North Quincy Street
Arlington, VA 22217-5000

Applications will be accepted through 7 November 1986 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

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U.S. CITIZENSHIP REQUIRED

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF ZOOLOGY MICHIGAN STATE UNIVERSITY

The Department of Zoology, Michigan State University invites applications and nominations for the position of professor and chairperson of the department. Candidates should hold a Ph.D. in zoology or a related biological science and demonstrate excellence and leadership in research and teaching; previous administrative experience is desirable. The department seeks an individual who will provide academic leadership, promote a creative environment, and maintain effective working relationships with other units in the university. The department comprises 30 regular faculty engaged in diverse, well-funded research programs, with particular strengths in cell and molecular biology, ecology and evolutionary biology, neurosciences and behavior, and genetics. We maintain active ties with interdepartmental programs, the University Museum, and the Kellogg Biological Station. Applications with a current curriculum vitae, descriptions of research program, career objectives and academic and administrative philosophies, and the names of five (5) references should be submitted by 1 November 1986 to: **Dr. Guy L. Bush, Chair, Chairperson Review and Selection Committee, Department of Zoology, Michigan State University, East Lansing, MI 48824.** An Equal Opportunity/Affirmative Action Employer.

DEAN, SOUTHWESTERN MEDICAL SCHOOL THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS

Applications and nominations are invited for the position of Dean of Southwestern Medical School (SMS). Candidates should have an outstanding record of educational, clinical, and/or research accomplishments, as well as significant administrative experience. Nominations and applications will be received until the position is filled and should be addressed to: **SMS Dean Search Committee, c/o Dr. Kern Wildenthal, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9002.**

An Equal Opportunity Employer

CANCER CENTER DIRECTOR

Applications and nominations for the position of director of the Mary Babb Randolph Cancer Center at West Virginia University are invited. The Cancer Center will have 85,000 net square feet of space and will be constructed adjacent to the new university hospital. West Virginia University is committed to developing a center devoted to excellence in multidisciplinary cancer research, education, patient care, and service.

The director must have demonstrated abilities in scientific program planning, development, administration, research, and education. The director is expected to have the ability to interact with a number of constituencies, including faculty from all segments of the university, health care practitioners and agencies throughout the state, elected state and federal public officials, and the lay public. The director has responsibility for and authority over all cancer center personnel, facilities, core services, equipment and budgets, and reports directly to the Dean of the Medical School on academic program matters.

Deadline: 15 November 1986
To: **Donald Lamm, M.D.,
Department of Urology
Chairman, Cancer Center
Search Committee
West Virginia University
Morgantown, WV 26505**

FOREST WILDLIFE HABITAT SCIENTIST. Assistant or associate professor, 12-month, tenure-track, research. Plan, organize, and conduct a research program on forest-wildlife interactions in managed second growth forests, with emphasis on testing management strategies which produce timber and promote an abundance and diversity of wildlife species. Salary commensurate with capabilities. Send letter of application, transcripts, curriculum vitae, and three letters of reference by 30 November 1986 to: **Dr. Logan Norris, Head, Department of Forest Science, Oregon State University, Corvallis, OR 97331.** An Equal Opportunity/Affirmative Action Employer. Complies with Section 504 Rehabilitation 1973.

POSITIONS OPEN

OHIO EMINENT SCHOLAR IN INDUSTRIAL MICROBIOLOGY THE COLLEGE OF BIOLOGICAL SCIENCES THE OHIO STATE UNIVERSITY (OSU)

The College of Biological Sciences of The Ohio State University seeks applicants for the **ENDOWED PROFESSORSHIP IN INDUSTRIAL MICROBIOLOGY** that has recently been funded by the State of Ohio.

Applicants must be recognized leaders in their research specialty and will be expected to maintain an active research program of industrial importance. Professional contacts/experience with industry will be considered beneficial. The incumbent will be expected to teach graduate students and collaborate with existing faculty in providing an education for undergraduates in the industrial applications of microorganisms. There are no administrative duties associated with this position.

The incumbent will hold a tenured, full professorship in the Department of Microbiology. Ample office and laboratory space will be provided in the modern Biological Sciences Building. Generous funding is available to design and equip the research space and a yearly allocation of funds will be provided for discretionary use by the eminent scholar. The salary for this 9-month position is negotiable and can be supplemented by funds from grants/contracts.

Applications containing curriculum vitae and names of three referees should be sent to:

**Professor John N. Reeve
Chairman, Department of Microbiology
484 West 12 Avenue
The Ohio State University
Columbus, OH 43210**

Enquiries regarding this position, existing programs and faculty in microbiology, and related fields at OSU are encouraged. Letters should be addressed as above, **telephone enquiries to 1-614-422-2301.**

Applications will be considered until the position is filled; however, the search will be limited in the first instance to applications received before 15 November 1986.

The Ohio State University is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITIONS IN ANIMAL VIROLOGY, EUKARYOTIC CELLULAR, AND MOLECULAR BIOLOGY

The Department of Microbiology and Immunology invites applications for several junior and senior, tenure-track positions focusing on significant problems in animal virology and eukaryotic cellular and molecular biology. The department, which is housed in newly renovated space, is in a major growth phase. A large center of excellence grant has resulted in establishment of a Molecular Resource Center within the department, featuring state-of-the-art facilities for: DNA cloning and sequencing, oligonucleotide synthesis, peptide synthesis, hybridoma antibody production, amino acid analysis, protein sequencing, molecular graphics, and flow cytometry. Funds for the initiation of research programs will be available and salaries will be highly competitive. Applications should consist of curriculum vitae, copies of several recent publications, a brief statement of future research goals, and three letters of reference to be sent to: **Dr. Terrance G. Cooper, Department of Microbiology and Immunology, University of Tennessee-Memphis, 858 Madison Avenue, Memphis, TN 38163.** Applications will be received until 10 October 1986 or until the positions are filled thereafter. *The University of Tennessee is an Affirmative Action/Equal Opportunity Employer.*

IMMUNOLOGIST—PROTEIN CHEMIST

Two positions available—assistant professor level in the research series and postdoctoral fellow. Experience in immunology required. Experience in production of monoclonal antibodies and protein chemistry preferred. Duties will include immunochemical characterization of scrapie prion proteins. Appointment depends on prior experience; assistant professor (\$25,000 to \$40,000 per year), postdoctoral (\$15,996 to \$30,000 per year). Send curriculum vitae, copies of publications, and three letters of recommendation to: **Dr. Stanley Prusiner, University of California—San Francisco, HSE 781, San Francisco, CA 94143-0518.** An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

EXECUTIVE DIRECTOR BIOLOGICAL SCIENCES CENTER DESERT RESEARCH INSTITUTE UNIVERSITY OF NEVADA SYSTEM

The Desert Research Institute invites applications and nominations for the position of executive director of the Biological Sciences Center. The Desert Research Institute is a division of the University of Nevada system and is engaged in basic and applied research for government and industry. The Biological Sciences Center (BSC) is one of five research centers of the Institute. The BSC's research activities are currently directed to plant ecology, physiology, and biochemistry, with an emphasis on studies of photosynthetic carbon metabolism, whole leaf gas exchange, and environmental stress responses of photosynthesis. The center is funded by the institute and through research grants and contracts.

The executive director must have the administrative skills and personality required to foster the productivity and creativity of a small group of research scientists. Applicants must hold a doctorate or equivalent degree in a relevant discipline. The successful applicant must have an outstanding record of scientific accomplishment and leadership and possess interdisciplinary experience. The executive director must have the demonstrated ability to attract human and financial resources, must have administrative experience, and must be an articulate and enthusiastic advocate for the center and its activities.

The executive director is responsible to the president of the institute for all aspects of center operations. The institute is headquartered in Reno, with other offices and facilities at Stread, Las Vegas, and Boulder City, NV. The faculty of BSC hold joint appointments with several academic departments at the University of Nevada, Reno. The search committee will begin reviewing applications on 1 November 1986 and will continue until a suitable candidate is identified. Please send curriculum vitae, statement of research interests and administrative experience, supporting information including reprints, and the names and addresses of four references to: **Twyla Harrison, Personnel Officer, Desert Research Institute, P.O. Box 60220, Reno, NV 89506.** *The Desert Research Institute is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION ENDOWED CHAIR IN BIOCHEMICAL RESEARCH UNIVERSITY OF LOUISVILLE

Nominations and applications are invited for the newly established **Preston Polk Joyes Endowed Chair in Biochemical Research** at the University of Louisville, Department of Biochemistry, School of Medicine. Preference will be given to candidates with currently successful programs in biochemistry and molecular biology utilizing recombinant DNA technology. The position will be tenured at the level of professor. Applicants should forward curriculum vitae and the names of at least four references. Nominators need send only a letter of nomination documenting the contributions of the candidate. Address all correspondence to: **Professor David V. Cohn, Chair, Search Committee, Department of Biochemistry, Health Sciences Center, University of Louisville, Louisville, KY 40292.** *Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGY

Two tenure-track positions for molecular biologists working with multicellular animals are available for September 1987. The positions are at the assistant professor level, but appointment at higher ranks is possible for exceptionally qualified individuals. Candidates whose research interests and experience include the utilization of modern techniques in molecular biology to answer fundamental questions in cell biology, developmental biology, evolutionary biology, genetics, neurobiology, or reproductive biology are preferred. Molecular biology at The University of Texas at Austin is an expanding and well-endowed field. Coordinated applications from pairs of individuals are encouraged. Please send curriculum vitae (including biographic information), short summary of research objectives, names of five referees, and selected reprints to: **The Chairman, Department of Zoology, University of Texas at Austin, Austin, TX 78712,** before 1 November 1986.

The University of Texas at Austin is an Equal Opportunity/Affirmative Action Employer.

**1986 - 1987
NATIONAL RESEARCH COUNCIL
DEPARTMENT OF THE ARMY
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Resident Research Associateship Awards are offered on a competitive basis to postdoctoral and senior scientists and engineers of unusual ability in the fields of

**Visual Science
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Programs are open to U.S. citizens only. Initial awards are for one year with the possibility of renewal.

The National Research Council will accept applications postmarked on or before Aug. 15, 1986, or Jan. 15, 1987.

For complete program descriptions and application forms, write to

Dr. Kent A. Kimball

Director, Programs and Plans

U.S. ARMY AEROMEDICAL RESEARCH LABORATORY

P.O. Box 577, Fort Rucker, Alabama 36352-5000

OR

Associateship Programs - JH608-WR2A

National Research Council

2101 Constitution Avenue NW, Washington, DC 20418

**U.S. Department of Energy
OFFICE OF FUSION ENERGY**

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Research Opportunities**

- On fusion energy R&D projects
- At fusion energy centers and DOE laboratories
- For appropriate science and engineering disciplines
- Stipend based on background
- Travel or moving reimbursement

Postdoctoral Research Program

- Up to 2 years of support for recent Ph.D.s

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Program**

- One month to one year of support for university faculty members and DOE/OFE-supported contractor employees

Information and Applications

- Please request materials by program name

Fusion Postdoctoral Research Program or

Fusion Professional Development Program



University Programs Division

Oak Ridge Associated Universities

P.O. Box 117

Oak Ridge, Tennessee 37831-0117

(615) 576-3190

Deadline January 20, 1987

**FACULTY APPOINTMENTS
IN
MOLECULAR BIOLOGY**

The E. A. Doisy Department of Biochemistry at St. Louis University School of Medicine intends to develop a center of excellence in Molecular Biology. Three appointments were made so far, and at least four more tenure track appointments in this area will be made over the next three years. At least one appointment can be made at the Associate or Full Professor level. This represents a major expansion of the interdisciplinary, multi-department Cell and Molecular Biology program at St. Louis University School of Medicine. Applicants should be capable of developing a strong, independent research program employing molecular biological, genetic, and/or biophysical approaches to address fundamental biological questions, and/or studies of the molecular bases of human disease. Excellent start-up funds and salary are available. Send curriculum vitae, description of research plans, and names of three references by January 1, 1987 to:

Dr. William S. Sly

Chairman

Department of Biochemistry

St. Louis University School of Medicine

1402 S. Grand Blvd.

St. Louis, Missouri 63104

*St. Louis University is an Equal Opportunity/
Affirmative Action Employer*

**Regional
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An expansion opportunity has created an opening in the **Rocky Mountain Region** for a Regional Medical Associate, to be headquartered in Phoenix, AZ or Seattle, WA., to combine scientific expertise and marketing skills. Responsibilities are to establish effective relationships within key medical institutions, providing scientific liaison and indepth information essential to appropriate use of SK&F's products. Will also have training responsibility at the Representative, Medical Staff, and Pharmacy levels. 50% travel.

Qualifications include PhD in Pharmacology, Biochemistry, Microbiology or other Life Sciences required. Must possess initiative, strong communication skills, and interest in Marketing.

In addition to an independent work environment where personal and professional growth are a way of life, we offer an outstanding compensation/benefits package geared to today's market. Please send resume and current earnings to:

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**ASSOCIATE
EDITOR
SCIENCE
MAGAZINE**

Editorial position available for a Ph.D. biochemist or molecular biologist with 2 or 3 years of research experience; wide general interest in biological sciences; and publications in the refereed literature. The successful candidate's initial duties will include editing manuscripts for clarity and style. Progress to wide responsibilities in manuscript selection is expected. Previous editorial experience not required. This is a full-time position in our Washington editorial office. Please submit resume with cover letter, including salary requirements, to:

Carolyn Bell

SCIENCE Magazine

1333 H Street, NW

Washington, DC 20005

Equal Opportunity Employer

POSITIONS OPEN

EXPERIMENTAL HEMATOLOGIST

Faculty position with tenure-track at the assistant or associate professor level in the Department of Medical Biology, University of Tennessee Memorial Research Center and Hospital, Knoxville. The candidate must be knowledgeable in the field of erythropoiesis. Applicants should have a Ph.D. or M.D. and at least 2 years of postdoctoral experience. Participation in an ongoing research program and ability to develop an independent research project are expected. This position is available immediately. Send curriculum vitae and a statement of career goals to: **Dr. Robert D. Lange, Department of Medical Biology, University of Tennessee Memorial Research Center, 1924 Alcoa Highway, Knoxville, TN 37920**, by 1 December 1986.

An Equal Opportunity/Affirmative Action Employer.

FACULTY BIOCHEMIST AT THE OHIO STATE UNIVERSITY

The Department of Chemistry seeks to fill a tenure-track position at the assistant professor level to begin July-September 1987 in the area of biochemistry. Outstanding candidates who qualify for a higher level appointment may also be considered. Candidates will be considered regardless of research interests. Demonstrated excellence, and the ability to carry out innovative research are essential. A strong commitment to teaching at both the undergraduate and graduate levels is also required. Applicants should send curriculum vitae (including graduate transcripts, and a list of publications), a statement of research and teaching interests, and three letters of recommendation to: **Dr. Devon W. Meek, Chairman, Department of Chemistry**.

Review of applications will begin 15 October 1986, and the deadline is 8 December 1986. *The Ohio State University is an Equal Opportunity Educator/Employer, which specifically invites and encourages applications from women and minorities.*



The Ohio State University
Department of Chemistry
120 West 18 Avenue
Columbus, OH 43210-1358

FACULTY POSITIONS IN BIOCHEMISTRY

Applications are solicited for three tenure-track positions at the level of assistant professor and one tenure-track associate professorship to be filled during 1986. Although special consideration will be accorded to those with research expertise in mammalian gene expression and regulation, molecular biology, membrane or receptor biochemistry, applicants in all areas will be evaluated. In regard to the assistant professorships, the candidates should have a proven record of productivity and the ability to develop an independent funded research program. The candidates for the Associate Professorship should, in addition, have extramural funding. All applicants should possess a Ph.D. in biochemistry (or related discipline) and should have several years of postdoctoral experience. The successful candidates will be expected to contribute in the departmental teaching programs. Salary will be commensurate with experience. Applicants should submit curriculum vitae, a statement of research interests, three letters of recommendation to:

Dr. Edward Bresnick

Department of Biochemistry
University of Nebraska Medical Center
42nd and Dewey Avenue, Omaha, NE 68105

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

NUTRITION. The Department of Food and Nutrition, Iowa State University, invites applications for a tenure-track assistant professor position. Responsibilities include research, teaching, and advising in the undergraduate and graduate programs. Applicants should have a Ph.D. in nutrition or closely related field and potential to compete for Iowa Biotechnology Program funds. Expertise in nutritional toxicology is preferred. Apply by 15 October 1986, or until position is filled. Available 1 January 1987. Send curriculum vitae, statement of interests and goals, and names of three references to: **Dr. T. J. Runyan, Faculty Search Chair, 107 MacKay Hall, Iowa State University, Ames, IA 50011.**

POSITIONS OPEN

FACULTY POSITIONS IN GENETICS

Three tenure-track research and teaching positions will be filled in the Department of Genetics at North Carolina State University. These are 12-month appointments at the ASSISTANT OR ASSOCIATE PROFESSOR level and they will be filled in the following areas:

ANIMAL DEVELOPMENTAL GENETICS: Specific area of research is open, but preference will be given to candidates using molecular techniques to investigate problems in development and differentiation with *Caenorhabditis*, *Drosophila*, or the mouse.

EXPERIMENTAL POPULATION GENETICS: Specific area of research is open, but preference will be given to individuals using molecular techniques to investigate problems in population genetics and evolution.

Preference is given to individuals with postdoctoral experience. Interested individuals should submit a complete curriculum vitae, three letters of recommendation, reprints of relevant publications, and a cover letter outlining their research interests and teaching experience to:

**Dr. William R. Atchley, Head
Department of Genetics
North Carolina State University
Raleigh, North Carolina 27695-7614
Telephone: 919-737-2292**

Closing date for applications is 1 November 1986.
North Carolina State University is an Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGIST

The Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, invites applications for a tenure-track position at the level of assistant professor. Qualified individuals should have a Ph.D. or M.D. and at least 2 years of postdoctoral research experience in immunology. Individuals with research interests in tumor immunology, macrophage activation, or the regulation of IgE synthesis are particularly encouraged to apply. The successful applicant will be expected to establish a strong independent research program and participate in the teaching of graduate and medical students. Candidates are requested to submit curriculum vitae and the names of three references to: **Dr. Steven B. Mizel, Chairman, Department of Microbiology and Immunology, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27103.** *Wake Forest University is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

MICROBIOLOGIST—MOLECULAR VIROLOGY OR MOLECULAR PATHOGENESIS. Several tenure-track, or tenured faculty positions at all academic levels are now available for individuals (Ph.D. or M.D.) with significant experience and strong promise in research involving either molecular virology or molecular pathogenesis of infectious disease, preferably with a molecular genetics emphasis. Resources are available both in the department and in the recently established Howard Hughes Institute for Molecular Genetics and Medicine (with joint appointments in the department). Send curriculum vitae, a brief statement of research interests, and three letters of reference to:

**Dr. Barry Eisenstein, Chairman
Department of Microbiology and Immunology
The University of Michigan Medical School
6643 Medical Science Building II
Ann Arbor, MI 48109**

Affirmative Action/Equal Opportunity Employer.

NEUROBIOLOGY, RESEARCH ASSOCIATE position available fall 1986 for research involving the development and application of optical methods for investigating the regional properties of neurons. Studies emphasize the use of voltage-sensitive dyes, calcium-indicator dyes, pH indicators, and dyes for demonstrating cell morphology. New imaging technology is employed with applications to neurons in culture, in invertebrate ganglia, and brain slices. Contact: **Dr. William Ross, Department of Physiology, New York Medical College, Valhalla, NY 10595.**

POSITIONS OPEN

HEAD

DIVISION OF MICROBIOLOGY YALE UNIVERSITY SCHOOL OF MEDICINE

Applications and nominations are sought for the position of **Professor and Head** of the Division of Microbiology. The successful candidate will be in charge of programs in microbiology and infectious disease epidemiology for public health, medical, and graduate students. The appointee's responsibilities will also include research, initiation of appointments and promotions, development and presentation of the divisional budget and coordination of research and teaching programs with other units of the medical school and university. Although the research field is open, individuals with a strong background in molecular or cell biology are encouraged to apply. Candidates must have a distinguished record of scholarship and professional achievement as evidenced by publications, grant awards, proven leadership in his or her field, and administrative abilities. Applicants should include complete curriculum vitae and names and addresses of at least five references. Please send applications to:

**Curtis L. Patton, Ph.D., Chairman
Search Committee
Department of Epidemiology
and Public Health
Yale University School of Medicine
60 College Street
New Haven, CT 06510**

An Equal Opportunity/Affirmative Action Employer

LABORATORY ANIMAL VETERINARIAN: The Oregon Regional Primate Research Center has an opening for a veterinarian with expertise in non-human primate medicine and colony management. Requirements include a D.V.M. or equivalent degree and postdoctoral training or experience in laboratory animal medicine. ACLAM Board certification is preferred, but Board-eligible individuals will be considered. The successful candidate will provide leadership in managing the center's AAALAC-accredited animal resources facility in accordance with federal regulations and guidelines for animal welfare, be responsible for clinical veterinary care and preventive medicine services for non-human primates and other laboratory animals, consult with faculty and staff involved in research, select and supervise animal care technicians, and serve as a member of the Institutional Animal Care and Use Committee. Participation in the center's research mission as an independent or collaborative investigator is encouraged and preference will be given to candidates with documented research training and achievement. Salary is commensurate with background and experience. The closing date for applications is 1 November 1986, or until a suitable candidate is found. A curriculum vitae, brief statement of professional goals and availability, salary requirements, and the names, addresses, and telephone numbers of three references should be directed to: **Dr. Michael K. Axthelm, Chairman, Search Committee, Division of Primate Medicine, Oregon Regional Primate Research Center, 505 NW 185th Avenue, Beaverton, OR 97006; telephone: 1-503-645-1141, extension 279.**

The Oregon Regional Primate Research Center is an Equal Opportunity/Affirmative Action Employer.

NEUROBIOLOGIST

The Department of Zoology, University of Georgia, invites applications and nominations for a tenure-track faculty position at the rank of **assistant, associate or full professor**. We encourage applications from candidates with productive research records working in fundamental areas of molecular neurobiology, such as developmental biology, peptide neuroendocrinology, neuroimmunology, and receptor molecular biology.

Rank and salary will be commensurate with previous experience; starting date is negotiable. The successful candidate will be expected to develop an extramurally funded research program and to teach in the area of speciality.

Candidates should possess a Ph.D. or equivalent degree. Applicants should submit curriculum vitae and a statement of research accomplishments and future interests, and arrange to have four letters of reference sent directly to: **Dr. Gordhan L. Patel, Head, Department of Zoology, University of Georgia, Athens, GA 30602.** Applications must be postmarked by 15 January 1987 to be considered. *An Equal Opportunity/Affirmative Action Employer.*

SENIOR TOXICOLOGIST Ophthalmic Devices

Alcon Laboratories is a \$400 million multi-national pharmaceutical company and a recognized industry leader in ophthalmic research. Due to continued growth, we are seeking an achievement-oriented Senior Toxicologist with the ability to make significant contributions within our Research & Development Division.

The successful candidate will:

- Design, supervise and analyze preclinical safety studies for surgical, ophthalmic devices and ophthalmic drugs
- Prepare technical reports and toxicology segments of government submissions
- Perform basic research for development of improved techniques for assessing drug/biomedical device safety

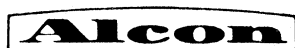
Qualifications include:

- PhD in Toxicology or DVM with related experience
- 0-3 years' experience in conducting preclinical safety evaluations
- Highly developed written and verbal communication skills

We offer an excellent opportunity for professional growth and recognition within a stimulating research environment. In addition, we offer a competitive salary, a comprehensive benefits package and a desirable Ft. Worth location with recreational, cultural and economic advantages indigenous to the Sunbelt. For immediate consideration, please send resume, in strict confidence, to: **Sherry H. Rightmer, Employment Supervisor, Alcon Laboratories, Inc., P.O. Box 6600, Ft. Worth, TX 76115.**

Equal Opportunity Employer, M/F/V/H

Principals Only, Please



Postdoctoral Scientist Neuroendocrinology of Growth Hormone

Smith Kline & French Laboratories, a leader in pharmaceutical research and technology, is seeking a Postdoctoral Scientist to join an interdisciplinary research program in neuroendocrinologic investigations of growth hormone release. The successful candidate will join a multidisciplinary team whose goal is to evaluate the synthesis, mechanism and site of action of neuropeptides which release growth hormone.

Candidates are required to have a Ph.D. in a relevant area (Endocrinology, Pharmacology) with 0-2 years of postdoctoral experience. Preference will be given to candidates having a strong background in neuroendocrine research at the cellular/receptor/molecular level and relevant publications in major scientific journals.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and a full interaction with the scientific community. Our postdoctoral positions are normally of two years duration.

Smith Kline & French Laboratories is located in suburban Philadelphia, Pennsylvania. We offer an excellent compensation and benefits package and an attractive relocation policy. For confidential consideration, send your C.V. and names of three references to Mr. Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1564 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

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NATIONAL INSTITUTE OF ALCOHOL ABUSE AND ALCOHOLISM ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

The National Institute of Alcohol Abuse and Alcoholism (NIAAA) invites applications and nominations for the position of **Chief, Laboratory of Physiologic and Pharmacologic Studies (LPPS), Division of Intramural Clinical and Biological Research**. The Chief, LPPS, will conduct his or her own research studies and provide direction and supervision to investigators studying the physiologic, pharmacologic, pathologic and behavioral correlates of alcohol and related drug ingestion. The Chief also serves as the focal point in the Federal sector, the scientific community and the public for these activities.

This position can be filled by a biologist, chemist, immunologist, pharmacologist, physician or neurophysiologist. It is a Civil Service position at the Grade 15 level with a salary range of from \$52,262 to \$67,939 a year (for physicians \$68,700). Physicians may also be eligible for Physician's Comparability Allowance up to \$10,000 a year.

Candidates must meet educational and experience requirements as defined by the U.S. Office of Personnel Management. Further information about this position and qualification requirements may be obtained by contacting Ms. Kathleen Hanratty at (301) 443-5407. An Application for Federal Employment (SF-171), accompanied by a curriculum vitae and bibliography should be submitted to:

Ms. Kathleen Hanratty
Division of Intramural Clinical and Biological Research
National Institutes of Health—Building 10, Room 3C103
9000 Rockville Pike
Bethesda, Maryland 20892

*Applications must be postmarked no later than October 31, 1986.
U.S. Citizenship Required.*

NIAAA is an Equal Opportunity Employer.

Ph. D.—Anesthesiology (Surgery) and Pharmacology

The section of anesthesiology (Department of Surgery) is recruiting a Ph.D. assistant professor with a background in neurosciences, i.e., neuropharmacology, neurotoxicology, neurobiology or neurochemistry to coordinate and develop the basic research laboratory under the direction of the Director of Clinical Investigation in Anesthesiology. This individual will have a combined appointment in anesthesiology and pharmacology.

Duties will include supervision and instruction of residents and fellows in basic science areas and supervision of graduate students and post doctoral fellows from time to time. This person would be expected to develop a strong collaborative basic research program to complement and expand the major research focus of the section, continuous intra-spinal drug infusion and related pharmacology and toxicology, in conjunction with the neuroscience disciplines at Dartmouth. Valuable skills include RIA, immunocytochemistry, receptor binding, neural tissue and cell culture, HPLC, and pharmacokinetic modeling. This person would be expected to become self-supporting through extramural and/or collaborative sources within 24-30 months.

Dartmouth Medical School is an equal opportunity employer. Submit all inquiries and applications (C.V. and three letters of reference) to D.W. Coombs, M.D., Neuroscience Search Committee, Dartmouth-Hitchcock Medical Center, Hanover, NH 03756.



DARTMOUTH HITCHCOCK MEDICAL CENTER
Hanover, New Hampshire

TOXICOLOGY OPPORTUNITIES

The ICAIR group of Life Systems, Inc., is a leader in interdisciplinary environmental health studies. Our contract base continues to expand creating the following career opportunities for highly motivated scientists at our Beachwood, OH and Arlington, VA locations. Both positions require an appropriate Ph.D. and 8-16 years related experience.

TOXICOLOGIST (Beachwood, OH) - focusing on pesticides and other organic chemicals, your work will also encompass the metabolism and human health effects of various environmental chemicals. You will plan and perform non-laboratory environmental health effects assessments, write criteria documents, perform risk assessments and participate in planning environmental health projects. Quantitative risk assessment experience a plus.

TOXICOLOGIST/TECHNICAL MANAGER (Arlington, VA) - requires the performance of technical responsibilities listed in position above, plus managing daily work activities of the other health professionals at this location. To qualify you must be a strong leader possessing customer and staff relations/development skills and the ability to manage programs and implement work plans without daily supervision. You will focus on improving product quality levels, customer relations, staff development activities and executing management-directed projects. Must possess minimum of two years direct supervisory experience.

These positions provide the opportunity for you to contribute technical expertise and insight across a broad spectrum of company activities in the environmental Health Sciences, and to become key members in ICAIR's continued growth. We can offer you an excellent salary + baseline benefits (including relocation) + flexible (your option) benefits + challenging assignments + respect for good work + good locations. For confidential consideration send your C.V. to our Manager, Recruitment at:

ICAIR

Life Systems, Inc.

24755 Highpoint Road
Beachwood, Ohio 44122

An Equal Opportunity Employer M/F/H/V

Microbial Physiology/Genetics

Smith Kline & French Laboratories, a leader in pharmaceutical research, is seeking additional senior and junior staff to expand its current research programs in fermentation, microbial genetics and recombinant DNA technology. These programs are aimed at developing novel therapeutic agents.

The Biological Process Sciences Department is recruiting for several outstanding senior scientists with Ph.D.'s in Biochemical Engineering, Microbiology, Biochemistry or equivalent and expertise in fermentation technology, microbial physiology, microbial genetics and/or molecular biology. Positions are also available for outstanding junior scientists with B.S./M.S. in the above disciplines.

Excellent opportunities exist for innovative interdisciplinary research in our new and superbly equipped Research and Development Center in suburban Philadelphia near Valley Forge, Pennsylvania.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please forward your C.V. and names of three references to: Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1578 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

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RESEARCH TRIANGLE UNIVERSITIES PLANT MOLECULAR BIOLOGY Graduate and Postdoctoral Fellowships

Duke University, North Carolina State University at Raleigh, and the University of North Carolina at Chapel Hill together with the North Carolina Biotechnology Center have formed a Consortium to advance studies in plant molecular biology. With support from CIBA-GEIGY, R.J. Reynolds Industries, and the Biotechnology Center, the Consortium will provide a limited number of graduate and postdoctoral fellowships in 1987 for study and research in plant molecular biology at the three Triangle universities. Candidates must be U.S. citizens. Each fellow must be based in a plant molecular biology laboratory at one of the universities, but will participate in activities involving faculty and students at all institutions. The goal of the Consortium is to enhance the community of plant molecular biologists among universities and participating companies. Graduate and postdoctoral fellows appointed in 1984, 1985, and 1986 are already in place.

The graduate student stipend is \$10,000 plus tuition, with an allowance for supplies and travel. The award is renewable for an additional two years. The postdoctoral stipend is \$21,500, subject to university policies, with an allowance for supplies and travel, renewable for an additional year.

Predocdoctoral candidates must apply directly to the departments and graduate schools of their choice; and must notify them of their interest in the Plant Molecular Biology Program. The student must send a copy of his/her application to the North Carolina Biotechnology Center and include: (1) a brief statement of research and career interests; (2) the departments of NC universities receiving applications; (3) transcripts and GRE scores; and (4) three letters of reference. For 3 and 4, a copy of a letter in which he or she requests the appropriate university to send these materials directly to the North Carolina Biotechnology Center is acceptable. Acceptance at one or more of the three universities is a prerequisite of the Fellowship Program.

Postdoctoral applications must be submitted by February 1 and should follow the format of NIH postdoctoral applications, complete with detailed research plan, and three letters of reference. Postdoctoral candidates must identify a suitable faculty sponsor at one of the three universities and develop a mutually acceptable research program with that sponsor. The applicant is responsible for the sponsor's submission of a statement to the North Carolina Biotechnology Center of what the sponsor will commit to the program. All materials must be received at the North Carolina Biotechnology Center by February 1, 1987. Award announcements will be made by March 15, 1987.



**NORTH CAROLINA
BIOTECHNOLOGY CENTER**

Box 13547 • RESEARCH TRIANGLE PARK, NC • 27709

RESEARCH ASSOCIATE EXPERIMENTAL HEMATOLOGY

Amgen is a leading biotechnology company developing innovative therapeutic, diagnostic, and specialty chemical products. Rapid progress in the development of product candidates and our commitment to innovation necessitates the addition of a select number of highly qualified staff who possess a record of research excellence.

Interested candidates should have a B.S. or M.S. degree in a related field and experience in bone marrow cultures and tissue culture.

Amgen offers an attractive compensation and benefits package and a dynamic and stimulating environment. Qualified candidates are requested to forward a resume and the names of three references to: Recruitment, Dept. 62, AMGEN, 1900 Oak Terrace Lane, Thousand Oaks, CA 91320.

AMGen

An Equal Opportunity Employer

DIRECTOR

Pesticide Research Center Michigan State University (MSU)

The Pesticide Research Center is a multidisciplinary center with a mission to develop and extend knowledge of optimum pest control strategies that will improve plant quality and human and animal safety. This is a high level strategic administrative position. The director is responsible for 8 faculty positions which include the Coordinators for Electron Optics, Analytical Laboratory, Integrated Pest Management Program, Pesticide Education Program and four specialist positions, and for the operating dollars for the research and extension programs.

S/he will interact regularly with appropriate department chairs and report directly to the Deans of the College of Agriculture and Natural Resources and the College of Natural Science. His/her principal job will be to lead scientists in all aspects of pest management and environmental protection, including, but not limited to, environmental effects of chemicals and alternative pest control strategies. There are 15 to 20 basic scientists associated with the programs as members of the center. Currently the disciplines represented in the center are animal science, entomology, botany and plant pathology, horticulture, crop and soil sciences, microbiology and public health and fisheries and wildlife. The director's responsibilities are to coordinate individual scientific efforts into a synergistic, unified, problem-solving team of scientists.

Qualifications: A Ph.D. in an appropriate relevant field to pest management and environmental protection. Demonstrated accomplishments in research and education programs required. Personal communication skills required since the director will serve as chief spokesperson in the pest management area for MSU. Demonstrated interest and potential for management is essential. Proven successful administrative experience is desirable. The successful candidate will maintain a research program but will be expected to put goals and objectives of the center above his/her individual interests. **Rank:** Tenured full professor in appropriate academic department. Salary commensurate with qualifications and experience. Position available on January 1, 1987. Application deadline is October 15, 1986.

Application and/or Nomination Procedure: Both nominations and applications are encouraged. Letters of nomination should include a brief statement of the nominee's background and qualifications. Applications should include cover letter and detailed curriculum vitae. All information should be sent to: Dr. Karen L. Klomprens, Chairperson, Search Committee, Pesticide Research Center, Michigan State University, E. Lansing, MI 48824. Phone: (517) 355-1302. **MSU is an Affirmative Action/Equal Opportunity Institution.**

U.S. DEPARTMENT OF ENERGY
OFFICE OF HEALTH AND ENVIRONMENTAL RESEARCH



Alexander Hollaender

D I S T I N G U I S H E D

Postdoctoral Fellowship Program

Research Opportunities in the Areas of
Life, Biomedical, and Environmental Sciences

- Research in OHER-sponsored programs
- Tenable at various national laboratories
- Stipends in excess of \$30,000
- Doctoral degree within past 2 years
- U.S. citizens or PRA eligible

Information and applications **Hollaender Postdoctoral Fellowships**
University Programs Division
Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, TN 37831-0117
(615) 576-3190

Deadline
January 20, 1987



National Research
Council Canada

Conseil national
de recherches Canada

Biotechnology Research Institute (Montreal)

The Biotechnology Research Institute, a division of the National Research Council of Canada, is located in Montreal. It will employ approximately 240 people and will host up to 200 researchers from industries, universities and other research organizations. This new research institute pursues generic research, both basic and applied, aimed at finding solutions to general problems related to industrial development of biotechnology.

1. Prokaryotic Genetics Group (RB-86-66-Sc)

Several positions are available in this group for candidates with at least 2 years of postdoctoral experience and a Ph.D. in Molecular Biology or a related discipline. Those with extensive experience in the genetics and molecular biology of *Bacillus*, *Pseudomonads* and other industrial microorganisms are particularly encouraged to apply. Applicants should have an interest in heterologous gene expression and novel synthetic and degradative pathways. One of the positions is at the level of group leader and requires additional in-depth knowledge of the subject area and several years of experience in successful applied research and technology transfer.

2. Leader of the Mammalian Cell Genetics Group (RB-86-65-Sc)

The Group Leader will be responsible for developing and coordinating the research activities of the group which are directed to the development of systems for analysis and expression of genes in mammalian cells. Applicants should have a Ph.D. in Molecular Biology or in a related discipline and 5 to 10 years of postdoctoral research experience in the molecular biology and genetics of mammalian cells. Demonstrated ability to provide leadership to a group of scientists and aptitude to communicate well with extramural collaborators and clients are essential.

Benefits are fully competitive and salary will be commensurate with qualifications and experience. Please send detailed curriculum vitae, to the address shown below, quoting the appropriate reference number.

Biotechnology, Research Institute, c/o The Manager, Employment Office, National Research Council of Canada, Ottawa, Canada, K1A 0R6.

Canada

POSITIONS OPEN

INORGANIC CHEMIST

Inorganic chemists are invited to apply for a tenure-track faculty position in the Department of Chemistry, Washington University, St. Louis, Missouri. While preference will be given to applicants at the assistant or associate professor level, candidates with distinguished research and teaching accomplishments will be considered for appointment at any level. Liberal research funds will be made available to the successful applicant. Applicants are requested to submit by 15 November 1986, curriculum vitae and a moderately detailed statement of research interests and professional objectives, and to arrange to have three letters of reference sent to: Professor Peter P. Gaspar, Chairman, Search Committee, Department of Chemistry, Washington University, St. Louis, MO 63130.

Washington University is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR BIOLOGIST

The Department of Zoology, University of Toronto, invites applications for a tenure-track position at the associate professor level in the field of molecular biology. The applicant must have an established record of teaching and research experience. The applicant will be expected to initiate a vigorous and innovative research program, supervise graduate students, and participate in undergraduate teaching. The department is committed to develop a center of excellence in this area. Well-equipped facilities will be made available. Preference will be given to applicants with interest and expertise in recombinant DNA technology. Salary will be commensurate with experience (salary range: \$33,200 to \$59,600). Candidates should send applications with full curriculum vitae, a statement of research interests and goals, and the names and addresses of three referees to:

Professor A. M. Zimmerman
Chairman, Search Committee
Department of Zoology
University of Toronto
Toronto, Ontario,
Canada
M5S 1A1

The closing date for receipt of applications is 1 February 1987. Effective date for appointment is 1 July 1987.

All qualified, interested individuals are strongly encouraged to apply, and in accordance with Canadian immigration regulations, this advertisement is directed in the first instance to Canadian citizens and permanent residents. The University of Toronto encourages both women and men to apply for this position.

MOLECULAR GENETICIST —PORTLAND, OREGON

A tenure-track assistant professorship is available for a person with at least 2 years of postdoctoral experience and research interests in the area of gene regulation of eukaryotic cells or viruses. Candidates should be committed to developing and maintaining a strong, funded research program and actively participating in undergraduate and graduate teaching. A growing research environment provides excellent opportunities for collaboration with scientists in this university and in nearby medical and graduate research institutions. Position to be filled by 16 September 1987. Please submit curriculum vitae, three letters of recommendation, and description of academic interests and future research plans before 31 October 1986 to: Dr. Robert L. Millette, Search Committee Chairman, Department of Biology, Portland State University, P.O. Box 751, Portland, OR 97207. *Portland State University is an Equal Opportunity/Affirmative Action Employer; qualified minorities, women are encouraged to apply.*

PH.D. OR POSTDOCTORAL VIROLOGIST, ENTRY LEVEL. Strong background in immunology and biochemistry. Evaluation of cell, tissue, or whole animal response to viral infection; virus/host interactions; therapeutic interventions. Experience with respiratory viruses and whole animal systems desirable. Send résumé and publication list to: Dr. T. J. Logan, Manager, Ph.D. Recruiting, Virologist Position, The Procter and Gamble Company, P.O. Box 39175, Cincinnati, OH 45247. U.S. citizen or permanent resident visa only. *An Equal Opportunity Employer.*

POSITIONS OPEN

NEUROBIOLOGIST

The Department of Neurobiology and Physiology at Northwestern University is recruiting for a faculty position in cellular/molecular/developmental neurobiology at the rank of assistant or associate professor. Preference will be given to applicants who work on the neurobiology of chemoreceptors, auditory or other mechanoreceptors, or in neuroendocrinology.

The Department of Neurobiology and Physiology has strong, well-funded groups in sensory neurobiology and in neuroendocrinology, both representing multidisciplinary approaches to these areas of neuroscience. Two NIH training programs are centered in the department. There is an undergraduate major leading to a B.A., a B.A./M.S. honors program for exceptional undergraduates, and a strong Ph.D. program.

Interested persons should submit curriculum vitae, a statement of research interests, and the names of three persons who can provide references to: Chairman, Search Committee, Department of Neurobiology and Physiology, Northwestern University, Evanston, IL 60201. Applications must be received no later than 10 December 1986.

OCCUPATIONAL MEDICINE: The Center for Environmental and Occupational Health of the University of Kansas Medical Center (KUMC) is seeking an associate director for occupational medicine. The candidate should be Board-certified in occupational medicine and will participate in establishing teaching, patient care, and research programs in our new center. Salary and departmental appointment will depend on the training and experience of the candidate. Applications are desired before 1 October, but will be accepted until the position is filled. Applicants should submit their curriculum vitae, bibliography, and references to: John Doull, M.D., Ph.D., Director, KUMC-EOHC, University of Kansas Medical Center, Kansas City, KS 66103. *KUMC is an Affirmative Action/Equal Opportunity Employer.*

OCEANOGRAPHY

Applications are invited for a STAFF SCIENTIST position to teach Introduction to Oceanography in an innovative undergraduate program, Sea Semester. Courses consist of 6 weeks of intensive classroom instruction followed by 6 weeks of teaching on board R/V *Westward* in the waters between the Caribbean and Newfoundland. Successful candidate will teach two courses per year, spending about 15 weeks per year at sea. Ph.D. in marine science required.

Starting date: June 1987. Salary commensurate with qualifications and experience. Résumé and three letters of recommendation by 1 November to: Dean of Sea Semester, Sea Education Association, P.O. Box 6, Woods Hole, MA 02543.

An Equal Opportunity Employer

PHARMACOLOGY: An assistant or associate faculty position is available in the Department of Pharmacology at Ponce School of Medicine. Candidates must have a Ph.D. in pharmacology, a strong commitment to teaching medical students, and the potential to establish an independent research program. Candidates with research interests in neuropharmacology, cardiovascular pharmacology, or toxicology are encouraged to apply. However, candidates will be considered in other areas. Interested individuals should forward curriculum vitae, names of three references, and a brief statement of research plans to: Dr. Arthur L. Hupka, Professor and Chairman, Department of Pharmacology, Ponce School of Medicine, P.O. Box 7004, Ponce, Puerto Rico 00732. *Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATION IN NEUROIMMUNOLOGY is available to study the immunological mechanism of viral and autoimmune diseases of the CNS. Candidates should have experience in immunological techniques such as T-cell and B-cell cloning and a background in recombinant DNA techniques. Send curriculum vitae and three references to: Dr. S. Sriram, Department of Neurology, C450 Given Building, University of Vermont College of Medicine, Burlington, VT 05401. *The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

PHYSICAL SCIENTIST (AEROSOL)

U.S. Army, Dugway Proving Ground, UT is accepting applications for a physical scientist GS-1301-12 starting at \$31,619 per annum. A successful candidate should have a bachelor's or higher degree in physical science with 3 years' professional experience to include a background in aerosol physics or aerosol engineering, with a specific understanding of the physical parameters that influence particle dynamics in the airborne state. Dugway Proving Ground is a major range and test facility with unique capabilities for testing chemical warfare and biological defense systems. Dugway is on a 4-day work week. Monday thru Thursday from 7:00 a.m. to 5:30 p.m. Interested applicants should telephone: 801-522-2181 for application packets. *An Equal Opportunity/Affirmative Action Employer.*

PLANT ECOLOGIST. The Illinois Natural History Survey, a division of the Illinois Department of Energy and Natural Resources located on the campus of the University of Illinois at Urbana-Champaign, invites applications for a terrestrial plant ecologist at the assistant scientist level. This is a permanent position available now. Ph.D. required, additional research experience preferred. Research should combine field work with experimental approaches and have resource management implications for Illinois. Community level ecologist working in plant competition, plant/animal relationships, or plant/soil interactions. Submit a letter of application, a detailed résumé, transcripts, and have three letters of recommendation sent directly to: Dr. Kenneth R. Robertson, Section of Botany and Plant Pathology, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820. Telephone: 217-333-6886. Applications accepted until 24 October 1986, or until a suitable candidate is found. *An Equal Opportunity/Affirmative Action Employer.*

PLANT GENETICIST/BREEDER

The Department of Horticulture and Forestry—Rutgers University is seeking a plant geneticist/breeder to conduct basic research in the genetics of tree fruit crops with emphasis on peach, in conjunction with the development of a conventional breeding program dedicated to cultivar improvement and release. A Ph.D. in plant genetics or a closely related field is required. The position is tenure-track (70 percent research, 30 percent teaching) and will include instruction at the graduate level in a course within the candidate's specialized area of expertise. Applicants should submit curriculum vitae, transcripts, statement of research and teaching interests, and have three confidential letters of recommendation sent to: Dr. Thomas Gianfagna, Search Committee Chairman, Horticulture and Forestry Department, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903, by 15 November 1986. *Rutgers University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW ION TRANSPORT

Postdoctoral position available immediately for Ph.D. or M.D. to collaborate on studies of ion transport by epithelial cells. Current interest centers on the properties and functional significance of ion channels. Work in progress utilizes single-channel recording, fluctuation analysis, and macroscopic currents to study the regulation of membrane conductance. Applicants should forward curriculum vitae and the names of two references to: David C. Dawson, Ph.D., Department of Physiology, University of Michigan Medical School, 6811 Medical Sciences II, Ann Arbor, MI 48109. *The University of Michigan is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN IMMUNOLOGY available immediately for molecular studies of retroviral determinants recognized by mouse cytotoxic T lymphocytes. Ongoing projects include identification of viral peptides that serve as epitopes for CTL recognition, construction of expression vectors for normal and mutated viral genes, and cloning and analysis of antiviral CTL populations. [(See *J. Exp. Med.* 146, 211, 1986)]. Background in immunology and/or molecular biology preferred. Send curriculum vitae and names of three references to: Dr. Frank Lilly, Department of Genetics, Albert Einstein College of Medicine, Bronx, NY 10461. *An Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Scientist Immunology

The Immunology and Anti-infectives Therapy Department of Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking a Postdoctoral Scientist to participate in a Lymphokine Biology research program in an environment designed to foster creative innovative research and to promote personal and professional growth.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and a full interaction with the scientific community. Our postdoctoral appointments are normally of 2 years duration.

The successful candidate will conceive, plan and conduct experiments towards understanding the receptors, transmembrane signaling events, and cell biochemistry associated with the actions of cytokines on their target cells. This includes the molecular characterization of cytokine receptors, and the study of the regulation and expression of cytokine receptors in relation to disease.

Candidates are required to have:

- a Ph.D. in Immunology, Cell Biology, or Biochemistry, with 0-3 years postdoctoral experience.
- experience with ligand-receptor binding assays and membrane signal transduction mechanisms.
- a good publication record.
- clear and concise communication skills.
- the ability to interact with multidisciplinary research team.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your C.V. and names of three references to Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1574 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

Senior Research Associates

Since our founding in 1983, we have established ourselves as a pioneer in the development of pediatric vaccines that combat childhood infectious diseases.

Two positions are currently available for professionals with an MS in Chemistry. The first position deals with peptide synthesis, HPLC and amino acid sequencing. A minimum of two years experience in biochemistry is required. The second position requires at least two years experience in one or more of the following: biochemistry, cloning, expression, synthesis of oligonucleotides or DNA sequencing.

Our Rochester, NY location ranks high in quality-of-life surveys, and the area's medical research resources are first-rate. We offer competitive salaries and excellent career prospects in a company poised for growth.

Please send confidential curriculum vitae along with a letter indicating position of interest to: Praxis Biologics, Human Resources Department, 300 East River Road, Rochester, NY 14623.

PRAXIS
BIOLOGICS

An Equal Opportunity Employer.

Career Opportunities for Life Scientists

Procter & Gamble has a number of entry-level staff positions available for Ph.D. and postdoctoral life scientists, to be filled between now and September 1987.

Disciplines include Toxicology, Pharmacology, Biochemistry, Cell Biology, Virology, Immunology, Pathology, Pharmacy, Microbiology, Molecular Biology, and Protein Chemistry.

Between September 29 and November 1, 1986, we will interview candidates on campus for these positions. If you are interested in an industrial career and have training in these areas, please contact your placement or department office for our recruiting date, and sign up for an interview. All our recruiters are Ph.D. scientists who are prepared to discuss these openings in detail with you.

If we are not visiting your campus, you can receive full and impartial consideration for these positions by sending your resume and publication list to:

Dr. Ted J. Logan
Manager, Ph.D. Recruiting
1986-87 Openings
The Procter & Gamble Company
Miami Valley Laboratories
P.O. Box 39175
Cincinnati, Ohio 45247

All applicants must be U.S. citizens or hold a permanent resident visa. No agency referrals. Procter & Gamble is an equal opportunity employer.

Procter & Gamble

BIOLOGY ASSISTANT

The Pathology and Toxicology Research group of The Upjohn Company is seeking a highly motivated biologist to assist a veterinary pathologist with drug safety and toxicity studies in lab animals and with basic research. Qualified applicants should have a B.S. or M.S. and research experience in biochemical toxicology and/or tissue culture procedures. Experience with GLP compliance and personal computers is 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 19964-A when calling.



A Century
of Caring
1886-1986

An Equal Employment Opportunity Employer M/F

Senior Investigator Developmental Toxicology

Smith Kline & French Laboratories, a leader in pharmaceutical research is seeking an established scientist to provide leadership and expertise in Developmental Toxicology. The successful candidate will join a multidisciplinary department which conducts preclinical evaluation of drugs for reproductive and developmental toxicology. This includes the development of new *in vivo* and *in vitro* methods and the conduct of routine studies to meet regulatory requirements for preclinical testing of drugs.

Candidates are required to have a Ph.D. in a relevant area (Developmental Biology, Teratology, Developmental Toxicology) with 3-4 years of experience beyond the Ph.D. A proven record of basic research and previous experience in conducting routine developmental toxicology studies (Segment II, FDA) is required. Preference will be given to candidates with excellent verbal/written communication skills and supervisory experience.

Smith Kline & French Laboratories is located in suburban Philadelphia, Pennsylvania. We offer an excellent compensation and benefits package and an attractive relocation policy as well as a work environment that offers considerable opportunity for personal and professional growth. For confidential consideration, send your C.V. and names of three references to Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1576 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

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PhD Molecular Biologists and Biochemists

Merck Sharp & Dohme Research Laboratories' expanding long-term commitment to molecular biology has created a number of exceptional career opportunities. We are currently seeking several Molecular Biologists and Biochemists who will participate in multidisciplinary programs dealing with the molecular cloning, expression and analysis of a variety of eukaryotic and prokaryotic proteins. Projects will be collaborative efforts whose goals are the identification, isolation, and characterization of proteins of therapeutic, pharmacologic, or process development interest.

Collaborations with several research departments will offer the opportunity for high visibility and career growth. We encourage broad interactions with the scientific community through collaborations, publications, and presentations at major scientific conferences.

Senior Research Fellow— These positions require a Ph.D. in the Biological Sciences or the equivalent with at least 3 years of postdoctoral research experience involving cDNA cloning, expression vectorology, serology, and protein purification. Breadth of training and a publication record which demonstrates creativity and independence are more important than the specific areas of expertise. Experience in directing other scientists, a high degree of self-motivation, demonstrated communication skills, and the ability to work as part of a large team are essential.

Postdoctoral Scientists— These positions require a Ph.D. in the Biological Sciences or the equivalent with 0-2 years of postdoctoral research experience involving cDNA cloning, DNA sequencing, protein purification and analysis, and the growth of prokaryotic and eukaryotic cells. A high degree of self-motivation, the ability to work as part of a large team, and technical innovation are essential.

An attractive salary and benefits program accompany these positions at our modern and spacious laboratories located at our largest research facility in **Rahway, New Jersey**. In confidence, please send your resume, three professional references whom we may contact, and salary requirements to: **Assistant Personnel Manager, MERCK SHARP & DOHME RESEARCH LABORATORIES, West Point, PA 19486.** EEO/AA/VH/Employer.



MERCK & CO., INC



LAB TECHNICIAN TERATOLOGIST

Hazleton Laboratories America is looking for several Teratology Technicians to work on both rodent and non-rodent species safety evaluation studies. Candidates should have 1-2 years of hands-on specimen evaluation experience. Hazleton Laboratories offers a comprehensive benefits package which includes individual and family medical/dental insurances along with an educational assistance program. An MS program in Environmental Toxicology is also offered on-site. Qualified applicants should send resume to:

**Hazleton Laboratories America, Inc.
9200 Lessburg Pike
Vienna, Virginia 22180**

EOE M/F

SENIOR RESEARCH SCIENTISTS

Connective Tissue and Pulmonary Research

Eli Lilly and Company

The LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company is seeking doctoral level applicants in the Department of Connective Tissue and Pulmonary Research to join an expanding research program housed in a newly occupied \$60 million 300,000 sq. ft. Biomedical Research Facility.

In keeping with our long-standing commitment to research excellence it is our intent to attract scientists with post-doctoral experience and demonstrated research accomplishments. Senior Research Scientists would be expected to develop their own research programs that would complement the endeavors of other scientists. Opportunities are present for collaboration with pharmacologists, biochemists, cell biologists, molecular biologists, immunologists, pathologists and medicinal chemists. The Lilly Research Laboratories has also recently instituted a program for post-doctoral scientists.

Senior Research Scientists will be expected to publish experimental studies related to basic and developmental research in peer reviewed journals and present research findings at appropriate scientific meetings.

The specific research areas and the requirements for each follow:

Pulmonary Pharmacologist/ Physiologist

Senior Scientist with a Ph.D. in Pharmacology or Physiology to participate in the

development of novel therapeutic agents that exert their effects via interaction with constituents of the arachidonic acid cascade. Experience with a variety of *in vitro* smooth muscle techniques and *in vivo* assessment of pulmonary function is desirable.

Osteoarthritis Research Scientist

Senior Scientist with a Ph.D. in Pharmacology/Cell Biology/Biochemistry to participate in a research program directed towards understanding of osteoarthritic disease mechanisms, development of *in vitro* and *in vivo* animal models of the disease and the development of agents for therapeutic intervention. The potential for scientific leadership or administrative responsibilities exists for persons with appropriate experience.

Phospholipid Research Cell Biologist/Biochemist

Senior Scientists with a Ph.D. in Pharmacology/Cell Biology/Biochemistry to participate in a research program directed towards understanding the roles of cellular phospholipids in the generation of disease associated mediators (e.g. leukotrienes, thromboxanes, prostaglandins, and platelet activating factor) and the development of novel inhibitors of the generation of these mediators. Experience with whole cell phospholipase assays is desirable. Disease targets include asthma, allergy and arthritis (inflammation).

Qualified candidates should send their curriculum vitae with an indication of the position they are interested in to:

John W. Crooks
Manager, College Relations (CT/PR)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285



Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL

A postdoctoral/research associate position is available immediately to conduct research on gene transfer into mammalian embryos and the regulation of gene expression in transgenic animals. Experience in molecular biology and mammalian embryology is desirable. Applicants should send curriculum vitae, description of research interests, and the names of at least three references to: **Dr. Robert E. Hammer, Howard Hughes Medical Institute, University of Texas Southwestern Medical School, 5323 Harry Hines Boulevard, Dallas, TX 75235.**

POSTDOCTORAL POSITION is available immediately to study the control of membrane currents in excitable cells. The present areas of investigation in this laboratory focus on (i) the control exerted by intracellular factors (Ca ions, pH, and phosphorylation) on channels in snail neurons and (ii) the genetic control of membrane currents (especially Ca current) in *Drosophila* neurons. Suction-pipet voltage-clamp techniques that allow analysis of whole-cell and single-channel currents are used. Candidates with backgrounds in electrophysiology, behavioral genetics, or biochemistry are desired. NIH funding for this position is assured through November 1988. Please send a letter of interest, curriculum vitae, and names of references to: **Lou Byerly, Neurobiology Section, Department of Biological Sciences, University of Southern California, Los Angeles, CA 90089-0371.**

POSTDOCTORAL POSITION available immediately for studies on gene regulation by cyclic nucleotides during brain cell development and myelination. Gene activation, transcription, and protein synthesis and turnover will be studied. Experience with molecular genetics, tissue culture, immunochemistry, and biochemistry are desirable. Send curriculum vitae and the names of three references to: **Dr. F. Arthur McMorris, The Wistar Institute, 36th and Spruce Streets, Philadelphia, PA 19104.**

POSTDOCTORAL POSITIONS

MOLECULAR BASIS OF CELL MOTILITY. Areas currently under study include structure/function relationships in non-muscle myosins, regulatory role of myosin phosphorylation in enzymatic activity and filament formation, in situ functions of myosin isozymes, molecular biology of myosin isozymes, mechanism of actin polymerization, and the regulatory functions of actin-binding proteins. Experience in protein chemistry or enzymology preferred. Salary will range from \$19,000 to \$22,000 per annum. Send curriculum vitae and three letters of references to: **Dr. Edward D. Korn, Laboratory of Cell Biology, National Heart, Lung, and Blood Institute, NIH, PHS, DHHS, Building 3, Room B1-22, Bethesda, MD 20892.**

NIH Is An Equal Opportunity Employer

POSTDOCTORAL POSITIONS IN RETROVIRUSES, ONCOGENES

Openings in the spring and fall of 1987. Use of molecular, cell biology, and whole animal approaches to study the roles of viral and host genes in pathogenesis. Work with avian leukosis viruses and human AIDS viruses. Interested candidates should send curriculum vitae and arrange for three letters of reference to be sent to: **Dr. Harriet Robinson, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

*An Equal Opportunity/Affirmative Action Employer,
M/F/H*

POSTDOCTORAL POSITION available in chemical carcinogenesis. Projects include development of monoclonal antibodies to carcinogen-DNA adducts, ELISA, and immunofluorescence. Send curriculum vitae and names of three references to: **Dr. R. M. Santella, Institute of Cancer Research, Columbia University, 650 West 168 Street, New York, NY 10032.**

*Columbia University is an Affirmative
Action/Equal Opportunity Employer*

POSITIONS OPEN

POSTDOCTORAL POSITIONS available immediately for research into the molecular biology of gene regulation and developmental timing in *Dictyostelium discoideum* or the molecular biology of genetic transposition and high frequency phenotypic switching in *Candida albicans*. Send curriculum vitae and names of two references to: **Dr. David R. Soll, Department of Biology, University of Iowa, Iowa City, IA 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION: available to study mechanism of heavy metal ion binding to algae [(see *Environ. Sci. Technol.* 20, 206 (1986); 20, 627 (1986)]. Send curriculum vitae and names of three references to: **Dr. Dennis W. Darnall, Arts and Sciences Research Center, P.O. Box RC, New Mexico State University, Las Cruces, NM 88003.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Two postdoctoral positions are available to study molecular properties of the acetylcholine receptor. Molecular biological and biophysical techniques are being used to probe the relationship between ligand binding and ion permeability in reconstituted membranes and oocyte expression systems. Techniques currently used include: site-directed mutagenesis, chemical modifications, rapid chemical kinetics, fluorescence and electron spin resonance spectroscopy, and membrane reconstitution. A Ph.D. in biochemistry, molecular biology, chemistry, or biophysics is preferred. Salary level will start \$18,000 and is funded by NIH grants. Applicants should send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Mark McNamee, Department of Biochemistry and Biophysics, University of California, Davis, CA 95616; telephone: 916-752-6418. The University of California is an Equal Opportunity/Affirmative Action Employer.**



International Institute of Tropical Agriculture

Deputy Director General-Research

IITA invites applications from qualified candidates for the senior position of Deputy Director General-Research.

IITA is an international agriculture research and training center with programs in farming systems of the humid and subhumid tropical zones and crop improvement of certain designated cereals, grain legumes, and roots and tubers. It is one of the major links in a worldwide consortium of 13 centers organized by the World Bank, F.A.O., and the United Nations Development Program.

With headquarters in Ibadan, Nigeria, the Institute has outreach programs in many countries of sub-Saharan Africa. IITA scientists from 45 nations work in partnership with national agricultural agencies, especially in Africa, to raise the productivity and income of family farmers and, thereby, to increase food production in less developed countries.

The Deputy Director General-Research has direct responsibility for IITA's five research programs, as well as research support units (genetic resources, virology, analytical services, biometrics, and farm management). As a member of the top executive team, the incumbent participates fully in the management of the Institute and in strategic planning. The person will report directly to the Director General, along with the Deputy Director General-Management and the Deputy Director General for Special Projects.

The individual must hold a doctoral degree in agricultural sciences and have substantial experience and success in agricultural research and research management. Experience in Africa is desirable. Candidates must have excellent command of English, and knowledge of French is advantageous.

Applicants possessing these qualifications are requested to send their curriculum vitae and the names of references to Ms. Maureen Larkin, Secretary to the Search Committee, L.W. Lambourn & Co., Ltd., 26 Dingwall Road, Croydon CR9 3EE, England.

Good Chemistry.

Syntex began with research in steroid hormones — today our work focuses on a dozen different therapeutic areas and we're providing high quality health care and medical diagnostic products worldwide. Consider these excellent opportunities to join us as we push ahead to ensure a future of good chemistry.

Organic Radiochemist

You'll synthesize compounds labeled with Carbon-14 and/or tritium and work with cold metabolite and FRS standards. Requires a BS/MS degree and at least 3 years' experience in radiochemistry; a background in organic synthesis, HPLC, TLC, column chromatography, and vacuum line work; and good written and verbal communications skills. Strong candidates will also be able to contribute to the design of syntheses and to the development of new labeling methodology, particularly at the microscale.

Pharmaceutical Development Chemist

You'll research and develop new solid drug products and oral controlled release systems, including the study of powder rheology, compression, mixing, drying and milling. You will also develop and explore innovative systems for controlled release and development of in vivo/in vitro models. Requires a BS/MS degree and previous research and development experience in pharmaceutical solid dosage forms, including mathematical modeling, computer programming and physical sciences.

Syntex offers a competitive salary and comprehensive benefits package. To apply, please send your resume to Syntex, Professional Staffing, Dept. JB/SCI, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.



Good Opportunities.

Innovation through advanced scientific research and development has enabled Abbott Laboratories to become the world leader in the expanding field of medical diagnostics. Our success has made diagnostics the fastest growing segment of our \$3.5 billion corporation, and has now created the following opportunities:

Ph.D. IMMUNOLOGIST

Qualified candidates will have a minimum of 2-3 years postdoctoral/professional experience and a background in the development of polyclonal and monoclonal antibodies; purification and characterization of antibodies; microbial whole cell and component antigens; and analytical immunological methods. **Dept. A.**

Ph.D. BIOCHEMIST

Qualified candidates will have a minimum of 2-3 years postdoctoral/professional experience, and a background in the purification and analyses of microbial cellular components; microbial physiology; and protein and enzyme chemistry. **Dept. B.**

Ph.D./M.S. BIOCHEMIST

Functioning in a multidisciplinary setting, this position will develop novel immunoassays for microbial detection. Candidates should possess a background in protein chemistry as well as knowledge of enzyme interactions with solid phase matrices. **Dept. C.**

In addition to our superior scientific environment, we offer excellent salaries and full benefits including stock purchase plan and profit sharing. Abbott is headquartered in an attractive suburban setting just 30 miles north of Chicago on the Lake Michigan shoreline. For confidential consideration, please send your resume with salary history, indicating appropriate department, to: **Abbott Laboratories, Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer.

ABBOTT
ABBOTT PARK IL 60064
"HEALTH CARE WORLDWIDE"

POSITIONS OPEN

POSTDOCTORAL POSITION BIOLOGICAL INDICATORS OF MARINE POLLUTION PUGET SOUND INSTITUTE UNIVERSITY OF WASHINGTON

Research Associate (postdoctoral) position in marine toxicology. Person will work with scientists at the U.S. Environmental Protection Agency's Manchester, Washington, laboratory on the development of biological relationships to marine chemical contamination. Term of appointment is 1 year, with the option to renew for a second year. Starting date is January 1987 or later. Send curriculum vitae and a list of three references to: **Marsha L. Landolt, Puget Sound Institute, HA-40, University of Washington, Seattle, WA 98195.** Closing date: 30 November 1986.

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION

Available immediately for Ph.D. to study the structure and function of transcriptional regulatory proteins in *Kluyveromyces* and *Saccharomyces*. Must have experience in genetic engineering or protein chemistry. Salary: \$17,000. Send résumé and names of three references to: **Lewis Bosworth, Placement Officer, 800 Rose Street, University of Kentucky Medical Center, Lexington, KY 40536-0084.**

Equal Opportunity Employer

POSTDOCTORAL

Postdoctoral positions are currently available for training in studies related to synaptic functioning in the mammalian central nervous system. Approaches stressed are those in which the fourteen participating faculty members in four departments are engaged in research at the cellular and molecular levels, as well as anatomical and physiological at the systemic level. The participating faculty represent a wide range of expertise in techniques, including molecular biologist, biochemical, immunological, electrophysiological and structural, and utilize a wide variety of tissue preparations, ranging from tissue extracts, to tissue culture, and to intact animals. Clinical research training, especially related to the basal ganglia and Parkinson's disease, is also available. The Robert Wood Johnson Medical School is located in New Brunswick and Piscataway, New Jersey, on the campus of Rutgers University, between New York and Philadelphia. Please send curriculum vitae and three letters of recommendation to: **Dr. David Egger, Acting Chairman, Department of Anatomy, University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.** *An Equal Opportunity/Affirmative Action Employer, M/F/H/V.*

POSTDOCTORAL POSITION to study (i) structure and function of the receptor for tumor necrosis factor and (ii) transmembrane signaling through receptors for insulin and growth hormone. Experience in membrane biochemistry and protein purification desirable. Send curriculum vitae and names of three references to: **Dr. David B. Donner, Sloan-Kettering Institute, 1275 York Avenue, New York, NY 10021.**

POSTDOCTORAL POSITION

POSTDOCTORAL RESEARCHER in plant lipid metabolism. Emphasis on triglyceride synthesis and its relation to phospholipid metabolism. Radioisotope methodology, organelle fractionation, enzyme assays, and related techniques will be utilized. Experience in cell biology and basic biochemical methods is required. Contact: **T. S. Moore, Department of Botany, 508 Life Sciences Building, Louisiana State University, Baton Rouge, LA 70803-1705.** *LSU is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available to study molecular basis of muscle contraction using modern electron microscopic techniques (ultra-rapid freezing, cryosectioning, and so forth). Experience in electron microscopy and/or muscle biology or physiology desirable. Send curriculum vitae and names of three references to: **Dr. Roger W. Craig, Department of Anatomy, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01605.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE: work on cloning and developmental regulation of mammary and milk protein genes. Ph.D. with experience in cell culture, protein chemistry, and recombinant DNA methods desirable. Will perform gene cloning and characterization, in vitro translation, and protein synthesis studies for target proteins regulated in established mammary cell cultures. Salary to \$25,008 per year, begin immediately, for 2 years. Send curriculum vitae and names of three references to: **Dr. Floyd L. Schanbacher, Laboratories of Molecular and Developmental Biology, Department of Dairy Science, Ohio Agricultural Research and Development Center, The Ohio State University, Wooster, OH 44691.** Telephone: 216-263-3803. *An Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE in plant pathology/biochemistry to investigate molecular mechanisms of plant viral cross protection. Experience in plant virology and molecular biology desirable.

Submit curriculum vitae, transcripts, three letters of reference, and a statement of research goals to: **Dr. John L. Sherwood, Plant Pathology Department, Oklahoma State University, Stillwater, OK 74078-0285,** by 15 October 1986 for full consideration.

Oklahoma State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITION

Ph.D. in chemistry, (bio)physics, or biochemistry to study molecular dynamics of proteins with emphasis on one or more of the following problems: solvation, dynamics of proteins in crystals, equilibria and dynamics of conformation change, and protein-small molecule interactions. Facilities include a computer/computer graphics system consisting of two Masscomp-500 machines, raster graphics, and E&S P350 color vector graphics. Long simulations are done off-site on a Cray-II supercomputer. Send curriculum vitae and two letters of recommendation to: **Dr. Jan Hermans, Department of Biochemistry, University of North Carolina, Chapel Hill, NC 27514.** *Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATES BIOLOGY AND BIOCHEMISTRY

The College of Biological Sciences, University of Minnesota, has a limited number of non-faculty openings for scientists who have completed the Ph.D. and some postdoctoral training and who wish to continue independent research careers. While such research associates may work in collaboration with faculty, they will be expected to obtain independent funding, including stipend, prior to appointment. Appointments must be renewed annually, but may be continued indefinitely, depending on funding, facilities, and evaluation of contribution.

Participating units are the Departments of Biochemistry, Botany, Ecology and Behavioral Biology, Genetics and Cell Biology, Microbiology, the Bell Museum of Natural History, the Gray Freshwater Biological Institute, and the Biological Process Technology Institute. Availability of positions in each unit will depend on space, facilities, research interests, and success in obtaining external funding.

Apply to: **The Research Associate Program, College of Biological Sciences, University of Minnesota, 220 BioScience Center, 1445 Gortner Avenue, St. Paul, MN 55108.** Provide curriculum vitae and list of publications, a one to two page statement of research plans, a list of facilities and equipment required, and three letters of recommendation. Indicate the unit or faculty member with which affiliation is desired.

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

RESEARCH FELLOW AMERICAN RED CROSS

Research position available for Ph.D. in microbiology/immunology to work on developing assays for detection of retroviruses. Experience in virology and tissue culture is required. Salary: \$19,000 to \$26,000, depending on experience. Please send résumé and references to: **Dr. Nrapendra Nath, American Red Cross, Biomedical Research and Development Laboratories, 9312 Old Georgetown Road, Bethesda, MD 20814.**

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE JOB ORDER NUMBER 656238

Participate in high priority army and navy supported synthetic program on High Energy High Density Materials. Develop methods for introducing nitro groups as substituents on highly strained cubane nucleus in hope of developing explosives superior to any in our present arsenal. Must have knowledge in synthesis of small, highly strained ring systems and GLC, HPLC, TLC, PMR, CMR, UV, IR, MS, and x-ray. Familiarity with photochemistry required. Also, willingness to work with highly explosive materials. Ph.D. in organic chemistry. Forty hours per week, 8 a.m. to 4:30 p.m. Salary: \$24,000 per year. CONTACT: **LOUISIANA DEPARTMENT OF EMPLOYMENT SECURITY, 617 St. Charles Avenue, New Orleans, LA 70130.**

The Department of Biology, Georgia State University, anticipates TWO POSTDOCTORAL POSITIONS available immediately, to study the hypothalamic function of CNS peptides. The Laboratory for Neuroendocrinology and Behavior emphasizes an interdisciplinary approach combining techniques which range from molecular biology to behavioral analysis. Ongoing projects include investigation of the hypothalamic control of circadian rhythms, communicative behavior, and pituitary function. Experience with RIA, chromatography, and/or methods for assessment of peptide gene expression is desirable. Salary is competitive and commensurate with experience. Send curriculum vitae, reprints, and the names, addresses, and telephone numbers of three references to: **Dr. H. Elliott Albers, Laboratory of Neuroendocrinology and Behavior, Department of Biology, Georgia State University, Atlanta, GA 30303.** Deadline for receipt of application is 15 October 1986. *Georgia State University, a unit of the University System of Georgia, is an Equal Educational Opportunity Institution and is an Equal Opportunity/Affirmative Action Employer in compliance with title IX and other civil rights laws.*

We have TWO OPENINGS AT THE POSTDOCTORAL LEVEL to join our group studying the high resolution structure of polio and related viruses. In addition to continuing characterization of the recently solved structure of the Mahoney strain of type 1 poliovirus, we have initiated crystallographic studies of the Sabin (attenuated vaccine) strains of type 1 and type 3 poliovirus, the Lansing (mouse-adapted) strain of type 2 poliovirus, and of Theiler's murine encephalomyelitis virus, and have begun characterizing assembly intermediates and altered conformational states of poliovirus. Applicants with experience in macromolecular crystallography or in a relevant field of virology are encouraged to apply. Applicants should send curriculum vitae and names of three references to: **Dr. James Hogle, Department of Molecular Biology, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.**

RADIOBIOLOGIST—The Division of Radiobiology, Department of Radiology, Stanford University School of Medicine. Applications are invited from established radio- or chemobiologists for the position of research associate. Candidates should have 3 years of postdoctoral experience in studying the effects of radiation and/or drugs in vitro and in vivo. Experience with multicellular spheroids and a good knowledge of mammalian physiology would be an advantage. Salary range: \$29,000 plus, depending on experience.

Application with curriculum vitae and the names and addresses of three references should be sent to:

Dr. D. G. Hirst, Division of Radiology, Department of Radiology, Stanford Medical Center, Stanford, CA 94305

Stanford University is an Equal Opportunity Employer and welcomes applications from women and minority candidates.

RESEARCH BIOCHEMIST. A Johns Hopkins School of Medicine appointment is available for a qualified Ph.D. biochemist interested in collaborating in research on gallstone pathogenesis and prevention. A background in related research is preferred, but not required. Applicants are requested to send their curriculum vitae to: **Dr. Henry A. Pitt, Vice-Chairman, Department of Surgery, Ballock 688, Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, MD 21205.**



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POSITIONS OPEN

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Perform research on the regulation of hemopoiesis. Assist in the training of Ph.D. and postdoctoral students. Assist in the administration of a large research laboratory. Ph.D. in biochemistry of development. Fifteen years of experience as biochemist. Thirty-five hours per week; salary \$42,336 per annum. Job Order: 8000017. DOT Code: 041.061.026. **MAIL RESUME TO:** Bronx Job Service, 349 East 149 Street, Bronx, NY 10451.

RESEARCH ASSOCIATES

Two positions for Ph.D. with strong background in biochemistry to work on either of the following two projects: (i) induction mechanisms of specific forms of cytochrome P-450 and (ii) mechanisms of carcinogen metabolism and carcinogenesis. Candidates with outstanding qualifications may be appointed at the rank of research assistant professor. Available immediately. Send curriculum vitae to: **Dr. C. S. Yang, Department of Biochemistry, University of Medicine and Dentistry of New Jersey—New Jersey Medical School, 185 South Orange Avenue, Newark, NJ 07103-2757.** An Equal Opportunity/Affirmative Action Employer, M/F/H/V.

RESEARCH ASSOCIATE. Position available under 3-year NIH-sponsored research program investigating molecular basis of attenuation of human hepatitis A virus. Ph.D. or equivalent, with experience in molecular biology. Experience in cDNA cloning, DNA transfection assays, and/or DNA sequencing would be helpful. Salary range: \$19,000 to \$23,000 per year. Respond by 10 October to: **S. M. Lemon, M.D., Division of Infectious Diseases, 547 Burnett-Womack Building, University of North Carolina, School of Medicine, Chapel Hill, NC 27514.** Telephone: 919-966-2536. Include curriculum vitae and names of three references. *UNC-CH is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH SCIENTIST/MEMBRANE PROTEINS. Ph.D. in biochemistry interested in structure-function relations in membrane ATPases needed to determine the primary structure of functional domains in the Ca,Mg-ATPase of sarcoplasmic reticulum. Experience in organic synthesis and HPLC desirable. Appointment for 2 to 3 years. Starting salary \$22,000. Send résumé and names of three references to: **Dr. Norman Briggs, Department of Physiology and Biophysics, Box 551, Medical College of Virginia, Richmond, VA 23298.** An Equal Opportunity/Affirmative Action Employer.

SCIENCE AND SOCIETY/HISTORY OF SCIENCE to teach at Sarah Lawrence College from September 1987. Candidate should have expertise in political, economic, and social issues arising out of developments in modern science and technology, and ability and interest in developing a teaching program to deal with those issues in an undergraduate environment. Requirements: successful teaching experience, strong commitment to undergraduate teaching, and Ph.D. or equivalent commitment to scholarship. At Sarah Lawrence, a small liberal arts college near New York City, faculty teach in seminar classes and individual tutorials. One- or three-year, full-time appointment. Send curriculum vitae, references, outlines of two proposed courses with reading lists, and description of research interests to: **Science and Society Search Committee, c/o Janet Held, Sarah Lawrence College, Bronxville, NY 10708;** deadline 15 November 1986. *Equal Opportunity Employer.*

SENIOR SCIENTIST/PROGRAM DIRECTOR

Internationally recognized, university-affiliated institute specializing in bioanalytical research has unique opening for senior scientist/program director to assist director with research and institute administration. Challenges include supervision of research staff, assistance with preparing written reports and publications, and aiding director in institute development. Qualifications: Ph.D. in chemistry or biochemistry. Strong communication skills required. Salary will be competitive. Send résumé to: **Professor Barry L. Karger, Barnett Institute of Chemical Analysis, 341 Mugar Hall, Northeastern University, Boston, MA 02115.** *Northeastern is an Equal Opportunity/Affirmative Action, Title IX university.*

POSITIONS OPEN

RESEARCH ASSOCIATE: For studies in the molecular biology of human hemoglobinopathies and thalassemias. Ph.D. degree with experience in molecular genetics, gene cloning, DNA sequencing, and plasmid and phage technology. Salary: \$25,000, plus. Send résumé to: **Dr. Ronald F. Rieder, State University of New York Health Science Center, 450 Clarkson Avenue, Brooklyn, NY 11203.** An Equal Opportunity/Affirmative Action Employer.

Environmental Monitoring and Services, Inc. (EMSI) invites applications for a permanent position: **TOXICOLOGIST** with Ph.D. in toxicology (or closely related science) and two or more years' experience. The successful candidate will be expected to develop as a scientist and contributor on toxic substance contracts, human inhalation research, and the development of new business opportunities. Preference will be given to candidates with experience in risk assessment, biostatistics, waste management, business development, or air and/or water quality studies.

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TRAINING PROGRAM

POSTDOCTORAL TRAINING IN NEUROIMMUNOLOGY

A 2-year training program has been established at the University of Pittsburgh by the Departments of Psychiatry, Immunopathology, and Psychology to prepare postdoctoral students with previous training in immunology or psychology for a career in research and teaching in psychoneuroimmunology. Funding is available for qualified applicants. Send curriculum vitae and two referees to:

Bruce S. Rabin, M.D., Ph.D.
Room 5725
One Children's Place
Pittsburgh, PA 15213-3417

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP available for studies of spontaneous and age-related hypertension. Our program emphasizes research of mechanisms of endocrinological and nutritional influences on the development of hypertension in rodent models. Areas of interest include tissue metabolism of calcium, vascular smooth muscle contractility, and tissue macromolecule synthesis. Applicants should send curriculum vitae with the names of three references to: **Gary L. Wright, Ph.D., Department of Physiology, School of Medicine, Marshall University, Huntington, WV 25704-2901.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP: EICOSANOID BIOSYNTHESIS/MITOGENESIS

A postdoctoral position is available within the National Institute of Environmental Health Sciences (NIEHS), to study arachidonic acid release and its subsequent metabolism in cultured cells in response to growth hormones such as EGF. The involvement of arachidonic acid hydroperoxides and peroxidases in the mitogenic responses will be investigated. Position is located in the Laboratory of Molecular Biophysics under the direction of **Dr. Thomas Eling, NIEHS.** Send curriculum vitae and three letters of reference to: **Bruce Wiggins, NIEHS Personnel Office, Code: HN-V2K, P.O. Box 12233 (MD-01), Research Triangle Park, NC 27709;** telephone: 919-541-3317. *An Equal Opportunity Employer.*

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN MARICULTURE: Two positions available immediately, a third in January 1987, for research in the development of hatchery rearing technology and in the nutrition of new species of marine mollusks, crustacea, or finfishes. Appointment for one year, renewable for second year at stipend of \$22,000, plus personal allowance. Send letter of application, résumé, and names of three references to: **Dr. John H. Ryther, Harbor Branch Oceanographic Institution, 5600 Old Dixie Highway, Fort Pierce, FL 33450.**

CONFERENCE

NATIONAL INSTITUTES OF HEALTH CONFERENCE ON MECHANISMS OF PHYSICAL AND EMOTIONAL STRESS. To be held 6, 7, and 8 November 1986 at National Institutes of Health. Main topics include basic mechanisms of the stress response, stress and the immune system, adaptation to physical stress, stress and development, and emotional stress and psychiatric illness. For further information, contact: **George P. Chrousos, Building 10, Room 10N262;** telephone: 301-496-4686 or **Philip W. Gold, Building 10, Room 3S239;** telephone: 301-496-6884. **National Institutes of Health, Bethesda, MD 20892.**

PROGRAM

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A large amount of the experimental work is performed by young scientists who produce ideas, technology and results. These scientists do not have many opportunities to talk to each other since normally they participate in general meetings involving all of the scientific community.

Therefore, Ares-Serono Symposia has decided to introduce a biannual appointment for the young scientist. The scientific committee, scientific secretaries and invited speakers will all be researchers under the age of 35. Of course, participants from all age groups will be welcome. The first biannual meeting has been organized with the Postgraduate School in Endocrinology of the University of Florence and recent advances in endocrinology will be discussed.

The Symposium "Endocrinology Under 35" will be held in Florence, Italy, May 23-25, 1988.

For suggestions on the topics and information, please contact:
Mario Maggi, M.D.
Endocrinology Unit
Department of Clinical Physiopathology
University of Florence
Viale Morgagni, 85
50134 Florence, Italy
Tel. (55) 411177

Main Topics

- Research horizons on steroid hormones, peptide and amine hormones
- Endocrine rhythms
- Immunoendocrinology
- Hormones and cancer



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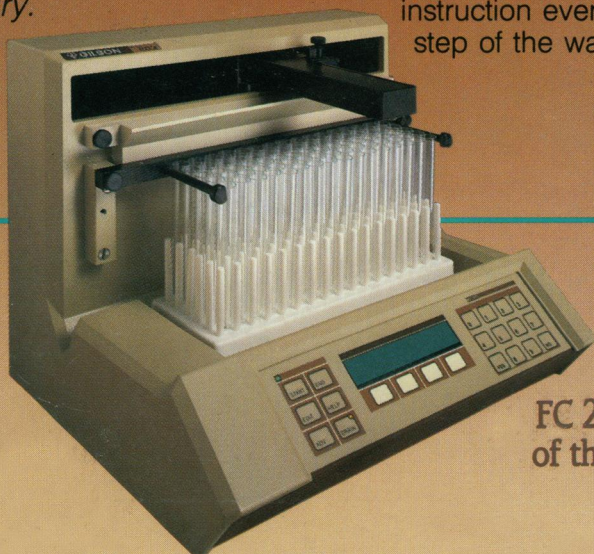
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