

Caribbean, or perhaps resemblances between North and South American biotas resulted from a distribution that extended the long way around, via Africa, Europe, and the north shore of the North Atlantic Ocean. No one really knows.

Complicating matters, edentate-like fossils occur in early Cenozoic formations of eastern Asia, western North America, and Europe. Just as armadillos and pangolins once were, these fossils have been referred to the true edentates by their describers. However, others have suggested that these supposed early northern edentates are really just palaeonodons, a diverse fossil group allied more closely to pangolins than to true edentates. Thus, a North American origin of the Edentata from "insectivores" via Cenozoic northern palaeonodons is currently questioned.

Whatever their origin, edentates have always been primarily South American. But in the late Cenozoic, several kinds of each of their major taxonomic divisions colonized southern North America from the south, beginning with several separate sloth invasions even before the Panamanian isthmus completely formed. One kind of sloth nearly reached the Bering Straits by the Pleistocene, but apparently no edentate crossed to Asia by that route in the late Cenozoic. Fossil edentates are known from the Greater Antilles as well as from the two main American continents, but the Antillean edentates are all representatives of a single sloth subdivision, the Megalonychoidea.

This book deals with unquestioned edentates, mainly living ones. It is a very instructive compendium, organized into sections dealing with identification and classification, phylogeny, anatomy and physiology, reproduction, diseases and parasites, and facets of ecology. I found the chapters on phylogeny by George Engelmann and by Wilfried de Jong *et al.* especially thought-provoking, as were Brian McNab's on energetics, population biology, and distribution and Kent Redford's on the food habits of armadillos. Most of the other papers, though fact-filled and interesting, are definitely for the files rather than for impassioned immediate discussion, but they are nonetheless well done. Moreover, the paper by the late Ralph M. Wetzel on the characteristics of the various kinds of armadillos is an especially useful summary. Wetzel's scholarship is inspiring; we shall miss him.

This book has been long in gestation. It therefore unavoidably contains some out-of-date ideas and contradictions, but it is generally well done. It has a good balance of descriptive chapters with think-pieces. The book is well illustrated, both in the individual chapters and also by some wonderful

interspersed drawings by an unidentified artist whose initials are L. R. They add charm and fascination.

MALCOLM C. MCKENNA
*Department of Vertebrate Paleontology,
American Museum of Natural History,
New York, NY 10024*

Some Other Books of Interest

Inorganic Reactions and Methods. J. J. ZUCKERMAN, Ed. Vol. 1, The Formation of Bonds to Hydrogen (Part 1). VCH, Deerfield Beach, FL, 1986. xxvi, 326 pp., illus. \$92.

This volume inaugurates "a closed-end series of books designed to present the state of the art of synthetic inorganic chemistry in an unprecedented manner," that is, according to bond formation and type of reaction rather than by way of elements or classes of compounds. The principles that underlie the form of presentation are explained in detail in a section headed "How to Use This Book" and in the series preface. In brief, the material is arranged according to a decimal scheme ("1.2. The Formation of Hydrogen," "1.2.1. Introduction," "1.2.2. by Reactions of Hydride Ions," "1.2.2.1. with Hydrogen Halides," and so on) and has, according to the editor, been edited in order to "homogenize" the individual contributions and to "provide the highest practicable density of information." Names of people have been confined to the reference lists that conclude each subsection, symbols and formulas are used in preference to element and compound names, and SI equivalents are included for older data. In addition to an editorial advisory board of 11 persons, 26 editorial consultants are listed for the series. Volume 1, which has ten contributors, proceeds from the formation of H₂ to the formation of bonds between hydrogen and elements of group VIB, with the treatment of bonds to hydrogen to be completed in volume 2 of the series. At the end of the volume 90 pages are devoted to author, compound, and subject indexes keyed to section rather than page numbers. The endpapers include abbreviated tables of contents for the 17 further volumes projected.—K.L.

Ionic Currents in Development. RICHARD NUCCITELLI, Ed. Liss, New York, 1986. xxxviii, 375 pp., illus. \$64. Progress in Clinical and Biological Research, vol. 210. From a meeting, Los Angeles, Aug. 1985.

The development of the vibrating probe, a technique for measuring steady or slowly

changing extracellular electric currents, has given rise to "impressive advances" in the study of the role of transcellular ionic currents in development, writes the editor of this volume. The technique, he reports, is now used in some 30 laboratories around the world. The meeting from which this volume stems (a satellite meeting of the 10th international congress of the International Society of Development) brought together many of the investigators using it. Nuccitelli's introduction, which includes a brief history of the study of bioelectrical phenomena, is followed by a "tutorial" on the vibrating probe by Carl Scheffey. The main text of the volume consists of four sections: Technical Advances, divided into subsections on the detection of extracellular currents (five papers) and of intracellular calcium (three papers); Transcellular Ionic Currents and Cell Polarity, dealing with both plant (eight papers) and animal (nine papers) systems; Transembryonic Ionic Currents and Regeneration (four papers); and Galvanotropism and Galvanotaxis in Development (ten papers). The volume concludes with a Roundtable Discussion consisting of two papers, "Ionic currents: an overview" by Lionel F. Jaffe and "Transcellular ion currents in tip-growing organisms: where are they taking us?" by Franklin M. Harold. It also includes a subject index.—K.L.

Books Received

Cholinesterase. Mary Whittaker. Karger, Basel, 1986. x, 132 pp., illus. \$55.50. Monographs in Human Genetics, vol. 11.

A Complete Cosmology. The Cyclic Universe. L. R. Holdridge. Vantage, New York, 1986. xiv, 179 pp., illus. \$11.95.

Computational Methods for Integral Equations. L. M. Delves and J. L. Mohamed. Cambridge University Press, New York, 1985. xii, 376 pp., illus. \$69.50.

Computational Methods for Kinetic Models of Magnetically Confined Plasmas. J. Killeen *et al.* Springer-Verlag, New York, 1986. viii, 199 pp., illus. \$38. Springer Series in Computational Physics.

A Course in Mathematical Physics. 2, Classical Field Theory. Walter Thirring. 2nd ed. Springer-Verlag, New York, 1986. x, 261 pp., illus. \$35. Translated from the German edition (Vienna, 1978) by Evans M. Harrell.

The Dream of Reality. Heinz von Foerster's Constructivism. Lynn Segal. Norton, New York, 1986. xxii, 184 pp., illus. \$22.95. A Norton Professional Book.

Ecology. Paul Colinvaux. Wiley, New York, 1986. x, 725 pp., illus. \$32.95. A successor to the author's *Introduction to Ecology*.

Economic Aspects of Biotechnology. Andrew J. Hacking. Cambridge University Press, New York, 1986. x, 306 pp., illus. \$59.50. Cambridge Studies in Biotechnology, 3.

An Invitation to Law and Social Science. Desert, Disputes, and Distribution. Richard Lempert and Joseph Sanders. Longman, New York, 1986. xvi, 528 pp., illus. \$39.50; paper, \$21.95.

Kinetic Theory of Particles and Photons. Theoretical Foundations of Non-LTE Plasma Spectroscopy. Joachim Oxenius. Springer-Verlag, New York, 1986. xii, 353 pp., illus. \$49. Springer Series in Electrophysics, vol. 20.

Kingdom of the Ice Bear. A Portrait of the Arctic. Hugh Miles and Mike Salisbury. Published by arrangement (Continued on page 1105)

Products & Materials

Supercritical Fluid Chromatography

The SPA/SFC is a supercritical fluid sample preparation accessory and chromatograph. The user loads the raw sample into a heat-controlled extraction vessel, pressurizes the unit with dense gas solvent, and collects pure material in a low-pressure separator vessel. The mixture may then be fed on-line to any of several analytical instruments such as a gas chromatograph or a mass spectrometer. The operator may equip the system with the Critical Extraction Monitor, a tunable ultraviolet-visible absorbance monitor with which compounds may be quantified. Milton Roy, Flow Control Division. Circle 538.

Vibration Isolation

EVIS (Electronic Vibration Isolation System) is an active vibration control system. Other systems have used passive processes to control vibrations and thus suffer from two drawbacks: (i) they "soft-mount" the equipment and (ii) they are relatively ineffective against the effects of internal sources of vibration. By contrast, the EVIS electronically senses vibrations within the framework of the equipment and actively "nulls" them. EVIS is applicable to protecting all types of vibration-sensitive equipment, including aligners, inspection systems, and probe stations. They will be available both as retrofit platforms for protecting existing equipment and as frames to be incorporated into new equipment. Newport. Circle 531.

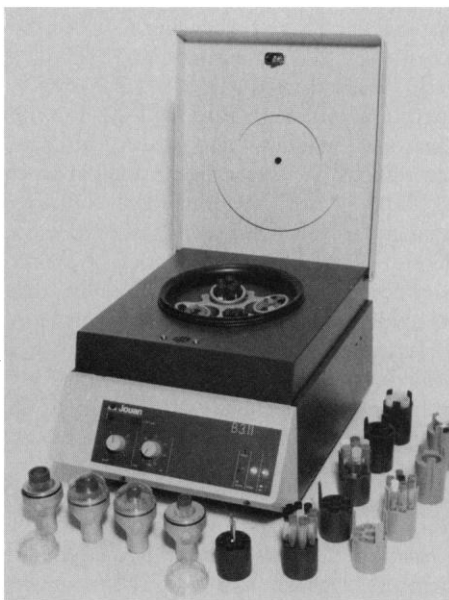
Time-of-Flight Mass Spectrometry

A series of surface analysis instruments is based on the design of an energy focusing time-of-flight mass spectrometer. Time-of-flight provides high mass range for the analysis of all elements and high molecular weight species up to 2000 atomic mass units. The time-of-flight analyzer includes an advanced electrostatic sector which pro-

vides high mass resolution and uniformly high transmission for all masses. Instruments based on the new analyzer include time-of-flight secondary ion mass spectrometer and laser microprobe. Each instrument is equally suited to the industrial laboratory or to research requiring rapid sample handling and high sample throughput. Applications of these techniques are important to a wide range of materials including polymers, semiconductors, metals, minerals, glasses, ceramics, and biological samples. VG Instruments. Circle 539.

Benchtop Centrifuge

Model B311 is a compact benchtop centrifuge. It is designed for laboratories that do not require the high tube-carrying capacities of large benchtop centrifuges. This economical unit can centrifuge up to 48 5-ml tubes at 3200 rpm (1630g). Adaptors are available for the S4 swinging bucket rotor to accommodate tube sizes ranging from microtubes through 180-ml bottles. Special



carriers allow 15-ml and 50-ml conical tubes to be centrifuged. Aerosol containment covers are available to safely centrifuge toxic or pathogenic samples. B311 standard features include closed loop speed control, digital speed readout, dynamic electric braking, and imbalance detection and shutdown system. Jouan. Circle 540.

Objectives

The PL Fluotars comprise a series of flat-field semiapochromatic objectives. These objectives are flat-field corrected for a field of view index of 25 mm. These large flat-

fields of view allow for more efficient specimen scanning and increased image information. In addition to flatness, the PL Fluotar objectives offer superb contrast and neutral color rendition. Increased light transmission characteristics make PL Fluotars suitable for epifluorescence applications. PL Fluotar objectives are also available for phase contrast and interference contrast observation. E. Leitz. Circle 527.

Software for Nuclear Magnetic Resonance Spectrometry

PCNMR is an NMR work station software program for the IBM PC AT. It enables the computer to free the NMR spectrometer from processing spectra. Users may generate spectra and realize superior on-screen multicolor displays. Easily operated with standard DISNMR commands or mouse-driven pull-down menus, the program also provides full peak picking routines along with on-screen and plotted annotation of peaks and normalized integrals. Peak lists may be printed out or plotted directly onto the hard copy. Other features include on-screen directories, semiautomatic phase correction, and an on-screen axis with tick marks. Command stringing is available to make the processing of data in full 32-bit arithmetic both convenient and efficient. IBM Instruments. Circle 541.

Literature

Cell Growth and Molecular Biology Products describes research substances and materials and includes sources, methods of preparation, properties, and potential uses. Collaborative Research. Circle 533.

Optical Tables is a selection guide that specifies over 1300 standard and special optical tables for research applications. Technical Manufacturing. Circle 534.

Laboratory Products presents a line of meters and pH and ion-selective electrodes. Charts list complete specifications. Many accessories are also listed. Orion Research. Circle 535.

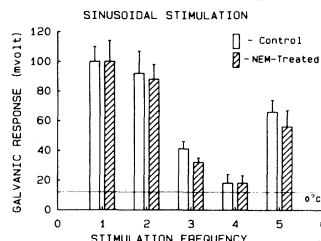
Autosampler Vials features accessories for gas and liquid chromatography. There are a dozen new products among these Type 1 borosilicate glass vessels. Chemical Research Supplies Division, LC. Circle 536.

Ultra Pure Chemicals includes specialty and reagent chemicals for biotechnology and genetic engineering. Certificates of Analysis are included with each shipment. American Research Products. Circle 537.

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.

PUBLICATION QUALITY CHARTS AND GRAPHS

from your IBM PC, XT, AT
and HP or compatible plotter



SIGMA PLOT™ software — \$350.

- Error Bars • Smooth lines,
- Clean diagonals • Movable
- Labels • Log and Semi-log scales
- and more . . .

Load data from Keyboard or disk,
any ASCII or DIF file (including
LOTUS 123)

Call or write today for more
information.

JANDEL SCIENTIFIC

MICROCOMPUTER TOOLS FOR THE SCIENTIST

2656 Bridgeway, Sausalito, CA 94965

800-874-1888 (outside CA)

415-331-3022 (inside CA)

Circle No. 45 on Readers' Service Card

(Continued from page 1103)

ment with the British Broadcasting Corporation by the University of Texas Press, Austin, 1986. 223 pp., illus. \$19.95.

Low-Temperature Oxidation. The Role of Vitreous Oxides. Francis P. Fehlner. Wiley-Interscience, New York, 1986. xxvi, 257 pp., illus. \$49.95. The Corrosion Monograph Series.

Maidenhair Ferns in Cultivation. Christopher J. Goudey. Lothian, Melbourne, Australia, 1985 (U.S. distributor, ISBS, Portland, OR). xvi, 336 pp., illus. \$59.95.

Major Topics in Primate and Human Evolution. Bernard Wood, Lawrence Martin, and Peter Andrews, Eds. Cambridge University Press, New York, 1986. x, 364 pp., illus. \$39.50. From a symposium.

Managing Conduct and Data Quality of Toxicology Studies. Sharing Perspectives Expanding Horizons. B. Kristin Hoover et al., Eds. Princeton Scientific, Princeton, NJ, 1986. xii, 352 pp., illus. Paper, \$65. From a conference, Raleigh, NC, Nov. 1985.

Manual of Microbiologic Monitoring of Laboratory Animals. Anton M. Allen and Tatsuji Nomura, Eds. Division of Research Services, National Institutes of Health, Bethesda, MD, 1986 (available from the Superintendent of Documents, Washington, DC). xii, variously paged. Unbound loose leaf sheets, \$3.50. NIH Publication no. 86-2498.

Mathematical and Computational Concepts in Chemistry. Nenad Trinajstić, Ed. Published for the International Union of Pure and Applied Chemistry by Horwood, Chichester, England, and Halsted (Wiley), New York, 1986. x, 365 pp., illus. \$78. Mathematics and Its Applications. From a symposium, Dubrovnik, Croatia, Sept. 1985.

Mathematical Methods in Electrical Engineering. Thomas B. A. Senior. Cambridge University Press, New York, 1986. viii, 272 pp., illus. \$29.95.

Mathematical Methods in Human Geography and Planning. A. G. Wilson and R. J. Bennett. Wiley-Interscience, New York, 1986. xvi, 411 pp., illus. \$52.95. Handbook of Applicable Mathematics. Guidebooks, 7.

Optics and Lasers. Including Fibers and Optical Waveguides. Matt Young. 3rd ed. Springer-Verlag, New

York, 1986. xviii, 279 pp., illus. Paper, \$26. Springer Series in Optical Sciences, vol. 5.

Organic Marine Geochemistry. Mary L. Sohn, Ed. American Chemical Society, Washington, DC, 1986. x, 427 pp., illus. \$74.95. ACS Symposium Series, 305. Based on a symposium, Miami Beach, FL, April 1985.

Organizational Design. The Organizational Audit and Analysis Technology. Kenneth D. Mackenzie. Ablex, Norwood, NJ, 1986. xiv, 292 pp., illus. \$39.95. Communication and Information Science.

Pioneering the Space Frontier. The Report of the National Commission on Space. Bantam, New York, 1986. x, 211 pp., illus. Paper, \$14.95.

Plant Flavonoids in Biology and Medicine. Biochemical, Pharmacological, and Structure-Activity Relationships. Vivian Cody, Elliott Middleton, Jr., and Jeffrey B. Harborne, Eds. Liss, New York, 1986. xxii, 592 pp., illus. \$76. Progress in Clinical and Biological Research, vol. 213. From a symposium, Buffalo, NY, July 1985.

The Pleistocene History of the Middle Thames Valley. Philip L. Gibbard. Cambridge University Press, New York, 1985. viii, 155 pp., illus. \$69.50.

Polymeric Reagents and Catalysts. Warren T. Ford, Ed. American Chemical Society, Washington, DC, 1986. viii, 295 pp., illus. \$54.95. ACS Symposium Series, 308. Based on a symposium, Miami Beach, FL, April 1985.

Population Growth and Social Complexity. An Examination of Settlement and Environment in the Central Maya Lowlands. Anabel Ford. Arizona State University, Tempe, 1986. xvi, 201 pp., illus. Paper, \$12.50. Anthropological Research Papers, no. 35.

Porn Row. Jack McIver Weatherford. Arbor House, New York, 1986. xvi, 248 pp. \$16.95.

A Practical Guide to Behavioral Research. Tools and Techniques. Robert Sommer and Barbara B. Sommer. 2nd ed. Oxford University Press, New York, 1986. viii, 297 pp., illus. Paper, \$15.95.

Private Benefits. Material Assistance in the Private Sector. Michael Sosin. Academic Press, Orlando, FL, 1986. xviii, 195 pp. \$19.95. Institute for Research on Poverty Monograph Series.

The Problems of Evolution. Mark Ridley. Oxford University Press, New York, 1985. viii, 159 pp., illus. \$16.95; paper, \$8.95. AN OPUS Book.

Processes of Recovery from Neural Trauma. G. M. Gilad, A. Gorio, and G. W. Kreutzberg, Eds. Springer-Verlag, New York, 1986. xiv, 369 pp., illus. \$69. Experimental Brain Research Supplementum 13. From a symposium, Israel, June 1984.

Prospects in Cell Biology. A Volume of Reviews to Mark 20 Years of *Journal of Cell Science*. A. V. Grimstone, Henry Harris and R. T. Johnson, Eds. Company of Biologists, Cambridge, England, 1986 (available from Biochemical Society Book Depot, Colchester, England). viii, 458 pp., illus. \$30. *Journal of Cell Science*, Supplement 4.

Structural Analysis Systems. Software-Hardware-Capability-Compatibility-Applications. A. Niku-Lari, Ed. Pergamon, New York, 1986. Vol. 1. xxii, 300 pp., illus. \$50. Vol. 2. xxii, 222 pp., illus. \$50. Vol. 3. xxii, 264 pp., illus. \$50.

Structure and Evolution of Active Galactic Nuclei. G. Giuricin et al., Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xxvi, 772 pp., illus. \$99. Astrophysics and Space Science Library, vol. 121. From a meeting, Trieste, Italy, April 1985.

Sudden Infant Death Syndrome. The Possible Role of "the Fear Paralysis Reflex." Birger Kaada. Norwegian University Press, Stavanger, 1986 (U.S. distributor, Oxford University Press, New York). 56 pp., illus. Paper, \$11.

A Theory of Education. Joseph D. Novak. Cornell University Press, Ithaca, NY, 1986. 295 pp., illus. Paper, \$10.95. Reprint, 1977 edition.

Thermal Analysis. Wesley Wm. Wendlandt. 3rd ed. Wiley-Interscience, New York, 1986. xviii, 814 pp., illus. \$89.95. Chemical Analysis, vol. 19.

Thermodynamic and Transport Properties of Coal Liquids. Constantine Tsionopoulos, John L. Heidman, and Shuen-Cheng Hwang. Wiley, New York, 1986. xx, 214 pp., illus. \$49.95. Exxon Monographs.

Thyroid Hormone Metabolism. Georg Hennemann, Ed. Dekker, New York, 1986. xvi, 627 pp., illus. \$95. Basic and Clinical Endocrinology, 8.

The Vital Force. A Study of Bioenergetics. Franklin M. Harold. Freeman, New York, 1986. xx, 577 pp., illus. \$37.95.

VLSI Technology. Fundamentals and Applications. Y. Tarui, Ed. Springer-Verlag, New York, 1986. xiv, 450 pp., illus. \$69. Springer Series in Electrophysics, vol. 12. Translated from the Japanese edition (Tokyo, 1981).

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

LINE CLASSIFIED ADVERTISING DEADLINES:
26 September issue (mailed 19 September): **5 September**
3 October issue (mailed 26 September): **12 September**
10 October issue (mailed 3 October): **19 September**
17 October issue (mailed 10 October): **26 September**

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

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

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

SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005
Telephone: 202-326-6555

Send copy for all **Fractional Display** ads, 1/6 page and larger, and all **Marketplace** ads to:

Scherago Associates, Inc.
1515 Broadway
New York, NY 10036
Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

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

POSITIONS WANTED

Aquatic Ecologist/Administrator, Ph.D. Twenty-five years of experience in teaching, research, government, business management, and environmental consulting. Desires challenging industrial/academic position, preferably at administrative/graduate level. Box 156, SCIENCE. 9/5, 12, 19, 26; 10/3

Computer Programmer available for special projects in Baltimore-Washington area. Eighteen years of experience supporting physical and life science research. Real-time experiments, one-of-a-kind-instrument handlers, graphics. Lucid assembly and FORTRAN 77 programming. George Hovey, 3704 Ednor Road, Baltimore, MD 21218. Telephone: 301-243-3269. 9/5, 12, 19, 26

Entomologist/Agroecologist (Ph.D. Entomology). Six years of experience in field research and teaching in biological control, agroecology, and pest management. Interest in sustainable agriculture. Seeks research, teaching, or consulting position in academia/industry. R. L. Bugg, 233 Hatchville Road, East Falmouth, MA 02536. 9/5, 12

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. 9/5, 12, 19

POSITIONS WANTED

M.D., Ph.D. Many years of research experience, directing metabolic and genetic laboratory. Teaching, publications, and patient care. Seeks position in Genetics and Pediatric Department. Board-certified, training in biochemistry and pediatrics. Prefer medical school affiliation. Box 154, SCIENCE. 9/5, 12

POSITIONS OPEN

YALE UNIVERSITY DEPARTMENT OF MOLECULAR BIOPHYSICS AND BIOCHEMISTRY ASSISTANT PROFESSORS

Applications are invited for assistant professorships in the areas of biophysics and biochemistry related to macromolecular structure and function, with particular emphasis on: macromolecular crystallography, resonance or optical spectroscopy applied to macromolecular structure and dynamics, theory of macromolecular interactions, bioenergetics, enzymology, and approaches to protein design. Candidates should submit curriculum vitae, a summary of research interests, and should request that three letters of reference be sent to: **Katharine Schrader, Secretary of the Search Committee, Department of Molecular Biophysics and Biochemistry, Yale School of Medicine, 333 Cedar Street, P.O. Box 3333, New Haven, CT 06510.** Applications must be received by 31 October 1986.

Yale University is an Equal Opportunity Employer and invites applications from all qualified individuals.

ASSISTANT PROFESSOR: THE DANA-FARBER CANCER INSTITUTE is seeking an assistant professor for its Division of Tumor Immunology. The primary responsibility for this position will be the conduct of research on the molecular biology/genetics of differentiation in lymphoid cells, and candidates should have a record of accomplishment in this area as reflected in publications and expertise in the use of transgenic mice as a model system. Additional responsibilities may include formal lectures and supervision of students and postdoctoral fellows. A joint appointment will be held in an appropriate department of Harvard Medical School. Interested candidates should send their curriculum vitae, a description of their proposed research program, and the names of their references to: **Dr. Stuart Schlossman, DANA-FARBER CANCER INSTITUTE, 44 Binney Street, Boston, MA 02115.** An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OR INSTRUCTOR IN PHYSIOLOGY. Ph.D. in physiology required. Primarily teaching endocrine, reproductive, and neurophysiology to first-year medical students. Assist in conducting weekly laboratories. Should have primary interest in teaching. Research encouraged. Hospital on campus. Department of three Ph.D. members. Start 5 January or sooner. Send curriculum vitae and letter, plus names, addresses, and telephone numbers of at least three professional references to: **Dr. E. H. Whitten, Associate Dean, University of Health Sciences, College of Osteopathic Medicine, 2105 Independence Boulevard, Kansas City, MO 64124.** Telephone: 816-283-2402.

ASSISTANT PROFESSOR, vertebrate evolutionary biologist. Applications are invited for a tenure-track position commencing August 1987. Salary will be \$22,000 to \$26,000 for 9 months. Applicants should have a strong background in vertebrate biology and take an evolutionary approach in their research. The successful applicant will teach courses including comparative vertebrate anatomy, and an advanced course in his/her specialty, establish an active research program, and interact with other faculty in the ecology and evolution section. A Ph.D. degree is required. The Department of Biology has 34 full-time faculty, 14 in the ecology and evolution section, and offers B.S., M.S., and Ph.D. degrees. Applicants should submit curriculum vitae, research plan, and three letters of recommendation to: **Ecology and Evolution Search Committee, Department of Biology, University of South Florida, Tampa, FL 33620.** Closing date for applications is 31 October 1986. *The University of South Florida is an Equal Opportunity/Affirmative Action Employer and applications from women and minorities are encouraged.*

POSITIONS OPEN

ASSISTANT PROFESSOR (Non-Tenured). Person sought with Ph.D. in biochemistry and molecular biology to study phosphorylation/dephosphorylation of link-protein in cartilage with use of monoclonal antibody and recombinant DNA technique. Extensive collaborative arrangements. Excellent salary. Apply with curriculum vitae and three references to: **Dr. E. R. Schwartz, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.**

To expand our strength in microbial pathogenesis, **The Department of Microbiology, University of Minnesota Medical School** is extending our search for an **ASSISTANT PROFESSOR** investigating the **molecular pathogenesis of virus infections** (12-month, tenure-track appointment). Candidates must have an M.D., Ph.D., D.V.M., or D.Sci. degree with two more years of postdoctoral research experience. This position offers an exciting opportunity to participate in the renaissance of a distinguished research-oriented department. The successful candidate will be expected to obtain extramural research funding, teach, and direct graduate students. Please send a brief description of research interests and plans, curriculum vitae, and three letters of recommendation to: **Peter G. Plagemann, Chair, Virology Search Committee, Department of Microbiology, University of Minnesota Medical School, 420 Delaware Street SE, Box 196 Mayo, Minneapolis, MN 55455.** Closing date for receipt of applications is 30 November 1986. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

SEARCH EXTENDED

ASSISTANT PROFESSOR: ORGANIC CHEMISTRY, tenure-track, starting August 1987. Ph.D. required; subsequent postdoctoral experience preferred. Must establish a vigorous program of research in any field of organic chemistry. Commitment to excellence in undergraduate and graduate teaching is essential. Apply with complete résumé, undergraduate and graduate transcripts, a description of research plans, and three letters of recommendation by 17 October (or until a suitable candidate applies thereafter) to: **Professor Raymond Funk, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Department of Biochemistry is seeking a scientist with training in biochemical or molecular biological approaches to ion channels and/or pumps. Areas of interest include, but are not limited to, ion channel protein structure and the interactions of small molecules with ion channels in biological membranes. Excellent physical resources include computational and computer graphics facilities (including E&S PS340 work stations), high-field NMR spectrometers, and so forth. This is an independent faculty position, though the successful candidate would be expected to develop interactions with an established multi-investigator research group with interests in cardiovascular electrophysiology and pharmacology. Candidates should submit curriculum vitae and a description of research interests and have three letters of recommendation sent to: **Dr. James V. Staros, Department of Biochemistry, Vanderbilt University, School of Medicine, Nashville, TN 37232.** *Vanderbilt University is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY-UNIVERSITY OF WASHINGTON. Applicants for this tenure-track position should have demonstrated the ability to develop a strong and creative research program in modern biochemistry, including aspects of cell, developmental, and neurobiology. Candidates should be interested in and capable of teaching biochemistry at the undergraduate and graduate levels. Submit curriculum vitae, representative papers, a succinct statement of research interests, and have three letters of recommendation sent to: **Search Committee, Department of Biochemistry, University of Washington, Seattle, WA 98195.** Application deadline: 31 October 1986. *The University of Washington is committed to Equal Opportunity through Affirmative Action in Employment, and we are especially eager to identify women and minority persons with appropriate qualifications.*

POSITIONS OPEN

A position is available for an **ASSISTANT PROFESSOR** in the Department of Ophthalmology at the Kresge Eye Institute, Wayne State University, School of Medicine. Duties include substantial involvement in the teaching of medical students, residents and other Ophthalmic Personnel, and supervision of teaching and research projects. Other duties involve organizing and supervising clinical and basic research in neuro-ophthalmology/ocular-motor physiology, and supervising the Prototype Instrument Laboratory in the Kresge Eye Institute, along with preparation of research data for scholarly publications and presentation at scientific meetings. The candidate should be a research ophthalmologist with a medical degree and an ophthalmology residency with experience in bioengineering and ophthalmological mechanical drawing. Salary will be commensurate with qualifications. Applicants should respond, in writing to:

Robert S. Jampel, M.D., Ph.D.
Professor and Chairman
Department of Ophthalmology
Kresge Eye Institute
Wayne State University
3994 John R
Detroit, MI 48201
Telephone: 313-577-1320
Equal Opportunity Employer

ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology of the East Carolina University School of Medicine invites applications for a tenure-track position at the assistant professor level. Research areas of interest to the department include toxicology, immunopharmacology, cardiovascular, neuropharmacology, and drug metabolism. Applicants should have either the Ph.D., M.D., or the combination and 2 years of postdoctoral experience and be committed to developing and/or maintaining an active, independent research program. Applicants are requested to submit curriculum vitae and the names of three references by 15 October 1986 to: **Dr. W. R. Wooles, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27834.**

Yale University, The Department of Chemistry, invites applications for several positions at the **ASSISTANT PROFESSOR LEVEL**, effective academic year 1987. We seek bright teacher-scholars who show promise for developing outstanding research programs in organic chemistry (especially bioorganic), inorganic chemistry (especially bioinorganic), and experimental and theoretical physical chemistry.

Applicants should send curriculum vitae, a statement of research interests and plans, and should arrange for the submission of three letters of recommendation. All materials should be received by 15 November 1987. Send application to: **Professor Stuart Schreiber, Chairman, Faculty Search Committee, Department of Chemistry, Yale University, 225 Prospect Street, P.O. Box 6666, New Haven, CT 06511.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY. Although previously advertised positions have been filled, several new tenure-track faculty positions are available for individuals with postdoctoral experience. Candidates with research interests in cellular biochemistry and metabolism, receptor structure and function, hormone action and transmembrane signaling, eukaryotic molecular biology, and neurochemistry are particularly encouraged to apply, but candidates will be considered in all areas. Applicants will be expected to perform independent research, obtain extramural funding, and participate in the teaching of biochemistry to graduate and professional students. Modern laboratory space, core equipment, and competitive salary will be provided to the successful candidate. Applicants should send curriculum vitae, outline of research plans, three letters of reference, and most significant reprints by 1 November 1986 to:

John N. Fain, Ph.D.
Van Vleet Professor and Chairman
Department of Biochemistry, College of Medicine
University of Tennessee, Memphis
800 Madison Avenue, Memphis, TN 38163
Attention: Cheryl M. Colson

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

POSITIONS OPEN

UNIVERSITY OF MIAMI ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology at the University of Miami School of Medicine invites qualified Ph.D. and/or M.D. scientists to apply for a tenure-track assistant professorship. The department is particularly interested in candidates with an established record of imaginative research utilizing new genetic, immunological, and/or neuropharmacological techniques to study major regulatory membrane proteins.

A curriculum vitae, representative reprints, statement of future research direction, and names and addresses of three references should be sent to: **Dr. J. D. Potter, Chairman, Department of Pharmacology, University of Miami, P.O. Box 016189, Miami, FL 33101. Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSORS OF PSYCHOLOGY (TENURE-TRACK)

The Department of Psychology at Oregon State University, Corvallis, is seeking at least three individuals to replace retiring faculty. These tenure-track appointments will be made at the level of assistant professor starting 16 September 1987. While candidates with an earned doctorate from any specialty area in psychology will be considered, those with demonstrated teaching and research expertise in the following areas will be given priority: social, developmental, motivation, emotion, personality, and measurement.

The Department of Psychology offers an undergraduate degree and participates in the university multidisciplinary master's degree program. New faculty will be expected to provide quality instruction and advising to our undergraduate majors and develop a research program in their specialty area. Complete application including a letter of application, curriculum vitae, three letters of reference, copies of recent publications, and evidence of teaching effectiveness must be received by 1 February 1987. Send materials to: **William P. Smotherman, Personnel Committee Chair, Department of Psychology, Oregon State University, Corvallis, OR 97331. Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with section 504 of the Rehabilitation Act of 1973.**

OPEN RANK FACULTY POSITION. The Department of Chemistry anticipates filling an open rank, tenure-track faculty position in organic chemistry. Applicants for this position must be committed to excellence in research and teaching. Junior level candidates must have a minimum of a Ph.D. in chemistry. Postdoctoral experience, while desirable, is not essential. Senior level candidates must demonstrate a consistently excellent record of scientific achievement and a pattern of active participation in the scientific community. The person selected will be expected to provide a strong impetus in enhancing the research and teaching programs of the department. The candidate's thesis or subsequent experience should have involved an area of modern organic chemistry. All else being equal, the area of specialization should complement those of current faculty.

Junior level candidates should send a complete curriculum vitae which includes a description of future research plans, a documented summary of past accomplishments, and arrange to have at least three letters of recommendation sent to: **Chairman, Search Committee, Department of Chemistry, State University of New York at Buffalo, Buffalo, NY 14214.** The deadline for application is 1 October 1986.

The Department of Chemistry is particularly interested in considering the applications of women, ethnic minorities, or handicapped persons. The State University of New York is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT RESEARCH SCIENTIST (four positions): M.S. in energy science and 3 years of experience. Study of energy sources and utilization methods pertaining to coal combustor design, pressurized fluidized bed coal burning techniques, and pollution control equipment. Forty hours per week (7:30 a.m. to 4:00 p.m.). Salary: \$26,170 per year. Job order number 0602301. D.O.T. code 008061022. Résumé to: **New York State Job Service, 344 Fulton Avenue, Hempstead, NY 11550.**

5 SEPTEMBER 1986

Senior Research Opportunities In Drug Disposition

RORER, a worldwide ethical pharmaceutical company, has immediate openings for a Mass Spectroscopist and Pharmacokineticist in the Drug Disposition Department of its growing research operation located in suburban Philadelphia.

Mass Spectroscopist- This individual will be responsible for the operation and maintenance of a Finnigan 4000 GC/MS system with 4500 source, PPINICI, HPLC interface and Inco's data system. Additional responsibilities will include the development of procedures, analysis of samples, collaboration on interpretation of data, and structure elucidation of drugs and drug metabolites in biological fluids.

The successful candidate will possess an MS or PhD with experience in the operation of a mass spectrometer as well as excellent oral and written communication skills. The individual should be knowledgeable in chromatography and mass spectrometry and capable of solving problems independently.

Pharmacokineticist- This individual will be responsible for assisting in the design and evaluation of pharmacokinetic aspects of both human and animal Drug Disposition studies and assist in matters relating to pharmacokinetics and associated computer programs.

The successful candidate will possess a PhD and 2 to 5 years postdoctoral or industrial experience in Drug Disposition—Pharmacokinetics. Experience in pharmacokinetics and bioavailability studies in humans including the use of pharmacokinetic models and familiarity with computer technology would be a decided asset. Excellent oral and written communications skills are also required.

If your background and experience match our requirements we would like to hear from you. We offer the opportunity for professional growth, a competitive salary, comprehensive benefits package, and a pleasant work environment. Please submit your resume to: **Steven P. Hochberg, Manager Staffing & Compensation, Dept. 101**

RORER CENTRAL RESEARCH

500 Virginia Drive, Ft. Washington, PA 19034

Equal Opportunity Employer, M/F



Postdoctoral Positions in Molecular Neurobiology and Geriatrics



What will you
discover
when you join Lederle?

At Lederle Laboratories, we're committed to innovation and discovery. To help us in this effort, we are looking for three postdoctoral candidates to join our Medical Research Division's Molecular Neurobiology group, established to make use of modern biotechnology for basic research and the search for new drugs in the area of Central Nervous System research. Terms will begin after September 1, 1986.

Members of this group have varied interests in numerous genes and gene products and have set up programs on interrelationships of the immune and nervous system, neurotropic factors, ion channels, intracellular calcium ion disposition, and neurotransmitter receptors. In collaboration with the CNS Geriatric Research group, a new program has been initiated on the molecular basis of CNS degeneration associated with aging, Alzheimer's and other diseases.

To qualify, postdoctoral candidates must have a strong background in biochemistry and one or more of the following areas: molecular biology (gene cloning, sequencing and expression) or isolation and characterization of peptides and proteins (HPLC and affinity chromatography). Prior postdoctoral experience is acceptable but not necessary.

At Lederle, you'll find a stimulating, highly professional research environment in beautiful Rockland County, just 30 miles from New York City. For immediate consideration, forward your resume and three references to: **Mrs. N. Levine, American Cyanamid Company, Lederle Laboratories, Pearl River, NY 10965.** An Equal Opportunity Employer m/f.



Dedicated People
Dedicated to People
Since 1906

POSITIONS OPEN

ASSISTANT PROFESSORSHIPS. The Department of Chemistry seeks to fill faculty openings in analytical, inorganic, and physical chemistry. Applicants for these tenure-track positions must be committed to excellence in research and teaching. The successful candidates will teach in service and majors courses at the undergraduate level, and in their particular specialty area at the graduate level. All appointees will conduct research in their particular areas of specialization. The successful candidates will have a minimum of a Ph.D. in chemistry. Postdoctoral experience, while desirable, is not essential. (i) **ANALYTICAL CHEMISTRY**—It is preferred that the candidate's Ph.D. and/or postdoctoral experience, and research interests, be in some form of chemical separation, or hybrid thereof, such as chromatography-mass spectroscopy, or in some other area of spectroscopy. Consideration will also be given to others whose research interests complement those of the present faculty in the analytical area. (ii) **INORGANIC CHEMISTRY**—The candidate's doctoral thesis work, or subsequent postdoctoral experience, should have involved an area of modern inorganic chemistry. Strong preference will be accorded to candidates whose research complements rather than duplicates that currently present in the department. (iii) **PHYSICAL CHEMISTRY**—Either the candidate's doctoral thesis work, or subsequent postdoctoral experience, should have involved an area of modern physical chemistry. Strong preference will be given to candidates with interests in solid state physical chemistry and/or chemical physics.

Candidates should send a complete curriculum vitae which includes a description of future research plans, a documented summary of past accomplishments, and arrange to have at least three letters of recommendation sent to: **Chairman, Search Committee, Department of Chemistry, State University of New York at Buffalo, Buffalo, NY 14214.** The deadline for application is 1 October 1986. *The State University of New York is an Affirmative Action/Equal Opportunity Employer.*

CARDIAC ELECTROPHYSIOLOGY

A postdoctoral position is available to study membrane properties, hormonal action, and development in isolated Purkinje myocytes and Purkinje strands. Voltage and patch-clamp recording techniques are employed. Send résumés to: **Dr. I. Cohen, Department of Physiology and Biophysics-HSC, State University of New York (SUNY)—Stony Brook, Stony Brook, NY 11794.**

SUNY—Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK number 195-B.

CELL AND MOLECULAR BIOLOGY GROUP DEPARTMENT OF BIOLOGY WEST VIRGINIA UNIVERSITY (WVU)

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level, available 16 August 1987, pending final budgetary approval. Special consideration will be given to candidates who are studying the regulation of cell growth and/or development and who are using contemporary molecular techniques. The successful applicant will be expected to participate enthusiastically and effectively in teaching undergraduate and graduate students, and to establish a strong, independent research program. Please submit curriculum vitae, a brief description of current and future research interests, and the names and telephone numbers of three individuals who are willing to provide letters of evaluation to: **Dr. Richard P. Sutter, P.O. Box 6057, Biology Department, West Virginia University, Morgantown, WV 26506-6057.** Application deadline: 1 November 1986, or until position is filled. *WVU is an Equal Opportunity Employer.*

PENNSYLVANIA CHAIRMAN, DEPARTMENT OF OPHTHALMOLOGY. The University of Pennsylvania School of Medicine has an opening for the position of **PROFESSOR AND CHAIRMAN** of the Department of Ophthalmology. Applicants must be certified by the American Board of Ophthalmology and have demonstrated qualifications in the administration of a large program in research, education, and patient care. *The university is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.* Interested applicants should send curriculum vitae to: **George E. Ruff, M.D., Chairman Ophthalmology Search Committee, 334 Piersol Building, Hospital of the University of Pennsylvania, Philadelphia, PA 19104.**

POSITIONS OPEN

Applications are invited for the position of **CHAIR OF THE DEPARTMENT OF BIOCHEMISTRY, UNIVERSITY OF MISSOURI—COLUMBIA.** The department has university-wide responsibilities for undergraduate, graduate, and professional education in biochemistry, and has multifaceted research programs that relate to agriculture, medicine and the life sciences, and contribute to an interdisciplinary program in molecular biology. The successful candidate will be expected to provide leadership in all phases of the mission of the department and to cooperate with a vigorous administration to advance biochemistry toward eminent status. Candidates should be recognized as leaders in biochemical research, and have strong credentials in teaching and administration. Applications should include curriculum vitae and the names of three references. Nominations are also requested. Submit by 15 September 1986 to: **Dr. Warren L. Zahler, Chair, Search Committee, Department of Biochemistry, M121 Medical Sciences Building, University of Missouri—Columbia, Columbia, MO 65212.** *The University of Missouri is an Equal Opportunity/Affirmative Action Employer*

CHEMICAL BIOLOGY AND PHARMACOGNOSY FACULTY POSITIONS

The Department of Chemical Biology and Pharmacognosy of the College of Pharmacy at Rutgers—The State University of New Jersey invites applications for positions at the level of **assistant, associate and full professors.** Areas of particular interest include molecular and cellular aspects of carcinogenesis, cellular differentiation, chemoprevention of cancer, regulation of molecular biology of the cytochrome P-450 enzymes, normal body substrates for the cytochrome P-450 enzymes, mechanisms of toxicity of xenobiotics, high resolution mass spectrometry, natural product chemistry, and mechanisms of action of natural products. Send curriculum vitae to: **Dr. Allan Conney, Department of Chemical Biology and Pharmacognosy, College of Pharmacy, Rutgers—The State University of New Jersey, P.O. Box 789, Piscataway, New Jersey 08854.** *An Equal Opportunity/Affirmative Action Employer.*

DEAN OF THE FACULTY TRINITY COLLEGE HARTFORD, CONNECTICUT

Applications and nominations are invited for the position of dean of the faculty; appointment to begin 1 July 1987. The dean is the chief academic officer of the college and is responsible for overseeing and developing its academic programs and its faculty.

Qualifications: Ph.D. or equivalent; scholarly achievement in the liberal arts or sciences; experience as an academic administrator and as a teacher.

The dean, the senior officer responsible for the instructional budget, reports directly to the president, supervises department and program chairpersons in their recruitment and review of faculty, and directs the offices of the associate academic dean and the associate administrative dean.

The salary will be commensurate with the candidate's experience and qualifications. Tenure will normally accompany this appointment. All applications will be acknowledged. A decision on the appointment is expected by 15 January 1987.

Applications should be sent by 15 October 1986 to:

**Professor David A. Robbins
Chair, Dean of the Faculty Search Committee
Department of Mathematics
Trinity College
Hartford, CT 06106**

Applicants should also arrange to have four letters of reference sent to the above address by the deadline noted. *Women and minorities are encouraged to apply.*

An Equal Opportunity/Affirmative Action Employer

EVOLUTIONARY BIOLOGIST

The Department of Zoology of the University of Maryland seeks outstanding applicants for a tenure-track position of evolutionary biologist. Rank is open. Send curriculum vitae, statement of research interests, reprints, and names and addresses of three references to: **Evolutionary Biology Search Committee, Department of Zoology, University of Maryland, College Park, MD 20742,** by 15 November 1986.

An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHAIRPERSON, DEPARTMENT OF PSYCHOLOGY: The University of Health Sciences/The Chicago Medical School is searching for a chairperson for the Department of Psychology. The department offers a Ph.D. in clinical psychology in the scientist-practitioner model with emphasis in neuropsychology and behavioral medicine. The program has provisional APA accreditation. We are seeking an individual with a strong research record compatible with the department's emphasis, who can provide leadership for our clinical and research program, and who can oversee our strong collaborative efforts with the university's Department of Psychiatry, affiliated hospitals, and basic science graduate programs. Address inquiries and send curriculum vitae to:

**Michael Alan Taylor, M.D., Chairman
Search Committee for Chair
Department of Psychology
University of Health Sciences
The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064**

*UHS/The Chicago Medical School is an
Equal Opportunity Employer*

DIRECTOR CLINICAL CYTOGENETICS LABORATORY. The Department of Pathology, Los Angeles County/University of Southern California (LAC/USC) Medical Center, Los Angeles, CA, seeks a director for its Clinical Cytogenetics Laboratory. Qualifications include a Ph.D. in cytogenetics or a related discipline and 2 years of experience in clinical cytogenetics. Experience in cancer cytogenetics is desirable. Ability to conduct an active research program and participation in the teaching activities of the Department of Pathology is expected. Academic appointment in the USC School of Medicine will be at a rate commensurate with qualifications. Applicants should send an updated curriculum vitae and at least three references to: **Edward T. Wong, M.D., Professor and Vice-Chairman of Pathology and Associate Director of Laboratories and Pathology, LAC/USC Medical Center, Room 2900GH, 1200 North State Street, Los Angeles, CA 90033-1084.** Inquiries may be directed to telephone: 213-226-7151.

Equal Opportunity Employer, M/F

DIRECTOR OF CLINICAL RESEARCH LABORATORY

**College of Physicians and Surgeons of
Columbia University
Center for Clinical Research**

Development of specialized tests, especially those utilizing immunoassay techniques. Requirements: Ph.D. in biochemistry, pathology, or related field; familiarity with immunoassay conduct and design. Background in immunology and monoclonal antibody development preferred. Position will have a faculty appointment and excellent opportunity for growth. Salary commensurate with experience. Send curriculum vitae to:

**Sylvia Bailey
Administrative Director
Center for Clinical Research PH4-124
630 West 168 Street
New York, NY 10032**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

The Walther Medical Research Institute and the Indiana University School of Medicine (IUSM) seek candidates for the **DIRECTOR OF THE WALTHER ONCOLOGY CENTER.** This newly established research facility will be located on the campus of the IUSM and professional personnel will have full-time IUSM faculty appointments. The director will have overall responsibility for the basic research and teaching functions of the center and for coordinating its activities with those of the clinical and other oncology research units on campus.

Applicants must have an M.D. and/or Ph.D. degree, an accomplished record in molecular/cellular biology research, and some experience in research administration. Send curriculum vitae, references and brief description of area of research concentration to: **Ting-Kai Li, M.D., Co-chairman of the Search and Screen Committee, Dean's Office, 1120 South Drive, Indianapolis, IN 46223.** *Indiana University is an Equal Opportunity/Affirmative Action Educator Employer and Contractor, M/F.*

★ **RUTGERS** ★
THE STATE UNIVERSITY OF NEW JERSEY
CHAIR, DEPARTMENT OF
BIOLOGICAL SCIENCES

We are searching for a distinguished scientist to lead the Department of Biological Sciences during a period of major commitment by the University to expand research activities in all aspects of the life sciences. The Chair also will be appointed Director of the Bureau of Biological Research, a multidisciplinary unit of 48 scientists with a substantial annual endowment and resources to support research initiatives. Sufficient administrative support will be provided so that the Chair can lead the Department and the Bureau while still maintaining an active research program.

The Department of Biological Sciences currently has over 50 faculty members with research strengths in cell and developmental biology, ecology and evolution, physiology, and neurobiology. In the next few years, approximately 10 faculty positions will be filled and the new Chair will have a major role in these hirings.

The development of the Department of Biological Sciences is being paralleled by major expansions at the Medical School, the Waksman Institute, ecological research units, and the Center for Advanced Biotechnology and Medicine (a major joint initiative established by the University, the Medical School, the Waksman Institute, the State, and local industry). The new Chair will have the opportunity to integrate the Department's growth with these other major programs in the life sciences.

Considering the multifaceted nature of the position, we are looking for an individual of vision and broad perspective to lead a group of scientists who work at many levels of biological organization. We seek nominations or applications from persons with a distinguished record of research, administrative experience, and a commitment to lead a large department active in teaching and research. Applications should include full personal and professional details. Strict confidentiality will be maintained when requested. Further information can be obtained from:

Professor Kenneth J. Breslauer
Chair, Search Committee
Wright and Rieman Laboratories
Rutgers University
P. O. Box 939
Piscataway, NJ 08854
Tel: (201) 932-3956

We would prefer applications by November 15, 1986. Rutgers University is an affirmative action/equal opportunity employer.

DIRECTOR GENERAL

IRRIGATION MANAGEMENT RESEARCH AND TRAINING SRI LANKA BASED

The International Irrigation Management Institute (IIMI), a not-for-profit organization dedicated to research and training for improved irrigation management is seeking a Director General as its chief scientific and executive officer. IIMI's activities are multi-disciplinary and international with extended field programs in several countries including Sri Lanka.

Responsibilities include leadership in conceptualizing, formulating, and implementing the Institute's scientific and training programs under the general direction of the Board of Governors; continuing international recruitment of a world-class multi-disciplinary professional staff; supervision of professional and service staff; development and negotiation for field programs in collaborating countries; maintaining diplomatic and policy relationships with the host country; development, operation, and maintenance of the central facilities at Digana near Kandy; supervision of general administrative functions; preparation of supporting documentation and recommendations for action of the Board of Governors and the supporting donors.

Minimum qualifications include a doctorate in engineering or the agricultural or social sciences related to irrigation; established scholarly reputation in own discipline; five years of productive multi-disciplinary experience as principal or senior associate in research/investigation of irrigation systems at least partly in developing countries; experience in information dissemination, preparation of documentation and successful negotiation with high-ranking national officials, and management of a medium-sized research or training organization. The basic language used by IIMI is English. Multilingual capability, particularly French would be helpful. Excellent salary and benefit package. Must be available Summer 1987. Send resume including salary history to:

Dean F. Peterson, Chairman, IIMI Search Committee
Utah State University, Logan, UT, U.S.A. 84322-4105

INTERNATIONAL IRRIGATION MANAGEMENT INSTITUTE
An equal opportunity employer

M.S. **CARDIOVASCULAR PHYSIOLOGIST** **TOXICOLOGY DIVISION**

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

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

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

Qualified candidates may send their resume to:



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

An Equal Opportunity Employer M/F

IMMUNOINFLAMMATORY DISEASE RESEARCH OPPORTUNITIES

In Drug Discovery

G.D. Searle's Research & Development Division has immediate openings for creative individuals wanting to join a progressive leader in the worldwide pharmaceutical industry.

• **Research Investigator #902-7**

Required Ph.D. in physiology of the respiratory system, knowledge of immunology of the lung, experience in measuring pulmonary functions in laboratory animals. This individual will participate in the development of innovative models of pulmonary diseases with immunological components, assist in the design, execution and analysis of pharmacological studies using these models to identify novel leads for treatment of acute and chronic immunoinflammatory diseases.

• **Research Biologist #903-5**

Required MS in biology, immunology or pharmacology with knowledge of allergy and inflammatory etiology. This individual will develop and validate in vivo and in vitro pharmacological methods aimed at the identification of chemical leads in the allergy/inflammation research program.

If you are seeking a challenging and rewarding environment, continuous professional growth with excellent benefits, please forward your resume, including salary requirements, to:

Barbara Gardner
Searle Research & Development
Division of G.D. Searle & Co.
4901 Skokie Parkway
Skokie, IL 60077

An Equal Opportunity Employer M/F/H

SEARLE

CELL BIOLOGIST

Clearly The Best

Allergan, the world leader in eye and skin care, is currently seeking a Cell Biologist for our Irvine, California headquarters. In this challenging position, you will plan, supervise and conduct research in a multi-disciplinary team environment.

In addition to excellent interpersonal skills, the ideal candidate will have a Ph.D. and a minimum of 2 years post-doctoral experience in cell biology or biochemistry with emphasis on experience with primary cell culture, established lines, growth factors and/or signal transduction mechanisms. Flow cytometry and/or gene probing experience a plus.

Allergan offers excellent salaries and benefits. Please forward your resume and salary requirements to: **Allergan Pharmaceuticals, Human Resources Dept. JD-3153-SCI, 2525 Dupont Drive, Irvine, CA 92715.** Equal Opportunity Employer MFHV.



CHAIR

DEPARTMENT OF IMMUNOLOGY & CANCER Research Institute of the Cleveland Clinic Foundation

A search committee of the Cleveland Clinic Foundation seeks a department head for the Department of Immunology and Cancer within the Research Institute of the Cleveland Clinic Foundation. This department consists of 10 established investigators working in various areas of cancer biology, immunology and autoimmune disease. The department is well positioned to interact with several basic research and clinical programs within the Foundation including the Cleveland Clinic Cancer Center. It is expected that the Chairman will maintain a vigorous research program, administer this department and play an active role in its future development.

Applicants must possess a Ph.D., M.D. or equivalent degree and qualifications appropriate to a tenured appointment at a full professor level. A distinguished scientist of national and international reputation with a solid background and demonstrated administrative and leadership skills is required.

The position is available immediately with a negotiable starting date. Salary is competitive and will be commensurate with qualifications and experience. The number of additional staff positions is negotiable as well.

The Research Institute of the Cleveland Clinic Foundation is comprised of seven Departments, with over 70 staff scientists and more than 80 pre- and post-doctoral trainees, devoted to basic biomedical research.

Applicants should send their curriculum vitae to **Dr. Ralph Green, Vice-Chairman, Search Committee for Immunology and Cancer Research, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44106.**

The Cleveland Clinic Foundation is an Equal Opportunity Employer.



THE CLEVELAND CLINIC FOUNDATION

1986 - 1987

NATIONAL RESEARCH COUNCIL DEPARTMENT OF THE ARMY RESIDENT RESEARCH ASSOCIATESHIPS

Tenable At The
U.S. ARMY AEROMEDICAL
RESEARCH LABORATORY
FORT RUCKER, ALABAMA

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
Auditory Perception
Visual Pharmacology
Visual Neuroscience
Comparative Psychoacoustics
Biodynamics

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, D.C. 20418

RESEARCH CELL BIOLOGIST

Southern Research Institute has an immediate position requiring a Ph.D. in cell biology, cellular immunology or other related field and minimum of 3 years appropriate post-doctoral experience. Background in tumor biology, radiation biology, or immunotoxicology desirable. Duties include supervising cell biology laboratory, providing leadership for expansion of cell biology program, and providing collaboration and support for extensive in vivo evaluation of anti-tumor drugs.

Located in a 20-acre complex and with a staff of over 700, Southern Research Institute is a diversified contract research organization in its fifth decade of operation. The Birmingham area, with a population of one million, offers a mild four-season climate, lower-than-average cost of living, diverse recreational and cultural opportunities and a variety of convenient housing alternatives. Send c.v. and salary requirements to Denise Johnson, Personnel Administrator:



SOUTHERN RESEARCH INSTITUTE
Personnel Office, Dept. C163
P.O. Box 55305
Birmingham, AL 35255-5305

An Affirmative Action/Equal Opportunity Employer

The University of Melbourne - Australia

Department of Psychology

Applications are invited for two positions in the Department of Psychology.

LECTURER/SENIOR LECTURER (Continuing) (Position No. 171 0120)

The person appointed will be expected to teach undergraduate and graduate courses and undertake research in clinical neuropsychology and to supervise research and clinical work in teaching hospitals. Opportunities for research in the University, in hospitals and other institutions are excellent. It is anticipated that applicants will have a Ph.D. or equivalent qualification in psychology and research experience in clinical neuropsychology. The successful applicant would be expected to commence duties as soon as possible after January 1, 1987.

Salary within the range \$A27,859 - \$A36,600 per annum (Lecturer) and \$A37,381 - \$A43,568 per annum (Senior Lecturer).

LECTURER (Continuing) (Position No. 171 0040)

The person appointed will be expected to conduct research in an area relevant to cognition, neuroscience or neuropsychology, to teach in the undergraduate psychology programme and to participate in the Masters course in Clinical Neuropsychology. Applicants with particular skills in the areas of learning and memory, biological bases of behaviour and/or the psychology of language will be given preference. It is anticipated that applicants will have a Ph.D. or equivalent qualification in psychology with a research record and teaching experience. This position will become vacant on January 1, 1987 and an appointment as early as possible in 1987 is desirable.

Salary within the range \$A27,859 - \$A36,600 per annum.

Enquiries regarding both positions may be directed to the Chairman, Department of Psychology, University of Melbourne, Parkville, Victoria 3052, Australia, or telephone (03) 344-6378.

Further printed information regarding details of application procedure and conditions of appointment is available from the Appointments Officer (Academic).

Applications, in duplicate, including names and addresses of at least three referees and quoting the relevant position number should be addressed to the Staff Officer, University of Melbourne, Parkville, Victoria 3052, Australia, and close on 10th October, 1986.

Equal opportunity in employment is the policy of the University of Melbourne.

RESEARCH & DEVELOPMENT OPPORTUNITIES

Pandex Laboratories, Inc., a subsidiary of Baxter Travenol Laboratories, Inc., is a biotechnology company developing state of the art products for medical diagnostics.

We are expanding our R&D group and have the following positions immediately available for highly skilled, motivated Researchers looking for career growth and new product development opportunities.

Director of Immunoassay

Ph.D. level with a minimum of 5 years previous management and assay development experience. Excellent written, communication and interpersonal skills are required. Responsibilities will include Management of the Immunoassay Laboratory, new product development and coordination of research projects.

Senior Scientist Immunoassay

Ph.D. level with 3-5 years experience in the development of ELISA and RIA methods. Knowledge of FIA and monoclonal antibody techniques a plus. Responsibilities will include the development of non-isotopic immunoassay techniques and reagents. Industrial experience desirable but not essential.

We offer a competitive salary and an excellent employee benefit package.

For confidential consideration, please send your resume to:

Ms. Anne M. McNicholl
Personnel Director

Pandex Laboratories, Inc.
909 Orchard Street
Mundelein, Illinois 60060

Pandex

an equal opportunity employer

MEDICAL DIAGNOSTIC RESEARCH

Ortho Diagnostic Systems Inc., a member of the Johnson & Johnson Family of Companies, has established a number of new programs at its research facility in Cambridge, Massachusetts. These programs emphasize fundamentally new diagnostic methods, aimed at rapid, cost-effective medical intervention. They encompass both near-term product opportunities, and longer-term research.

Our staff is highly interdisciplinary, with an established capability of combining biotechnology with sophisticated optical and electrochemical instrumentation. Through studies that we sponsor, you will have the opportunity to work closely with several research centers in the Boston-Cambridge medical community.

DNA PROBE DIAGNOSTICS

We are looking for an innovative scientist to develop hybridization assay formats using non-isotopic labels. This position requires a PhD or equivalent in a field related to DNA probes. A minimum of 2 years' experience in hybridization technology, nucleic acid chemistry or other relevant research experience is also required. Additional experience with the immobilization of macromolecules on polymer supports is desirable. Our ideal candidate must be able to perform independent and creative research using state-of-the-art hybridization techniques.

Interested candidates should direct their inquiries to Barry Berman, Ortho Diagnostic Systems, Inc., Cambridge Research Laboratory, 195 Albany Street, Cambridge, Massachusetts 02139. All inquiries will be held in confidence. Our company is an equal opportunity employer.



Ortho Diagnostic Systems Inc.
Cambridge Research Laboratory
A Johnson & Johnson Company

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF ANATOMICAL SCIENCES MEHARRY MEDICAL COLLEGE

Applications and nominations are invited for the position of **CHAIRPERSON OF THE DEPARTMENT OF ANATOMICAL SCIENCES**. Ph.D., M.D. or equivalent degree is required. Candidates must have a distinguished record of teaching and research achievement and have demonstrated evidence of leadership ability. The position requires a strong commitment to the continuing development of departmental research, academic programs, faculty, and resources. Applicants should send curriculum vitae, letter of application, and a list of five references to:

James G. Townsel, Ph.D.
Professor and Chairman
Department of Physiology
Meharry Medical College
1005 D. B. Todd Boulevard
Nashville, TN 37208

The position will be available 1 September 1986, however; applications will be accepted until the position is filled.

An Equal Opportunity/Affirmative Action Employer

DEPUTY DIRECTOR

Laboratory for Atmospheric and Space Physics
University of Colorado

The Laboratory for Atmospheric and Space Physics invites applications for the position of deputy director.

The deputy director has the leadership role in initiating new space research projects with the participation of the scientists of the laboratory. The deputy director is responsible for the financial and administrative management of the laboratory. The deputy director interacts with managers and contract negotiators at NASA headquarters and space centers in conducting the affairs of the laboratory.

The Laboratory for Atmospheric and Space Physics is a research institute of the University of Colorado that participates in the space exploration programs of the National Aeronautics and Space Administration. Current programs include experiments on the Galileo, Voyager, and Pioneer Venus planetary spacecraft, the Solar Mesosphere Explorer and Upper Atmosphere Research Satellite, Spartan spacecraft, and sounding rockets.

Candidates should have experience at university research laboratories and/or NASA research centers. Please send résumés to: **Professor Charles A. Barth, Director, Laboratory for Atmospheric and Space Physics, University of Colorado, Campus Box 392, Boulder, CO 80309-0392**, before 31 October 1986. Salary will be commensurate with experience and responsibilities.

The University of Colorado, Boulder has a strong institutional commitment to the principle of diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, and disabled individuals.

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.*

Career Opportunities In Pharmaceutical Research

We are one of Japan's major pharmaceutical companies and have now expanded into ten overseas locations for the research and development of new pharmaceuticals. Our strong commitment to a directed basic research program in autoimmune disease has created several outstanding career opportunities at our Rockville, Maryland facility for Scientists in the following disciplines:

PhD- Requires at least two years postdoctoral experience in immunochemistry to work with cellular immunologists and molecular biologists on the role of T cells in regulating macrophage functions in autoimmune disease.

MS or BS- Requires at least one year of full time experience in flow cytometry. Qualified candidate will run a facility for the immunology and cell biology departments and will also devote some time to assisting in related cellular immunological or immunochemical investigations.

BS- Must have several years experience in tissue culture, animal handling, cytotoxic assays and general biochemical techniques.

Otsuka places a strong emphasis on publication and collaboration with the university scientific community. If you have the qualifications necessary to fill one of these openings and you are interested in professional growth in a stimulating research environment at the same time you receive a competitive salary and a comprehensive benefits package, you should forward a current CV plus the names of several references to: **Dr. Walter Newman, Chief Scientist, Immunology.**



Otsuka Pharmaceutical Co., Ltd.

Maryland Research Laboratories
P.O. Box 4165
Rockville, MD 20850

*"Otsuka, people creating new products
for better health worldwide"*

An Equal Opportunity Employer

BIOCHEMICAL TOXICOLOGIST Mobil

Mobil Oil Corporation is seeking a highly qualified research biochemist or biochemical toxicologist to join its Environmental Affairs and Toxicology Department located near Princeton, New Jersey. The successful candidate will conduct studies aimed at elucidating the biochemical mechanism of toxicity of petroleum related materials via dermal or respiratory exposure.

Responsibilities include development of sensitive biochemical and enzymological techniques to be used in monitoring cellular and organ specific toxicity and chemical alteration of DNA, RNA, and proteins (In Vitro and In Vivo); development of bioseparation techniques for isolating DNA, RNA, enzymes, receptors, and covalently-bound adducts to nucleic acids and proteins; collaboration with a multidisciplinary group of scientists in relating macromolecular modifications with toxicological, pathological and toxicokinetic findings in acute and sub-chronic animal studies. Working knowledge of metabolic activation, radioreceptor assay, P 32-postlabeling of DNA-carcinogen adducts, cell culture methods, isolated organ perfusion techniques, radio immunoassay and high performance liquid chromatography (HPLC) techniques is desirable.

This position requires a Ph.D. Degree in Biochemistry, Pharmacology, Toxicology or related discipline and 2 to 4 years of relevant experience (preferably industrial).

Interested applicants should send their curriculum vitae in confidence to: Manager-Recruiting and Employment, Department SCI, Mobil Technical Center, P.O. Box 1031, Princeton, NJ 08540.

MOBIL OIL CORPORATION

an equal opportunity employer

PLANT MOLECULAR BIOLOGY

Endowed Chair

Iowa State University announces the establishment of the Pioneer Hi-Bred International Chair in the Molecular Biology of Maize. We seek a plant molecular biologist for this position with a record of research productivity and excellence.

The individual will lead development of a basic research program on the genetic improvement of maize, work in state-of-the-art facilities, have opportunities to collaborate with internationally respected maize geneticists and breeders, have strong support from private research groups, and have access to a large collection of germ-plasm and genetic stocks of superior quality. Research may include organisms that serve as model systems for potential application to maize.

Compensation is competitive and negotiable. Automatic and optional employee benefits have a value of more than 21 percent of annual salary.

Candidates should submit a resume; publications list; summary of current research in molecular biology; and the names, addresses, and phone numbers of three referees to John Pesek, Head, Department of Agronomy, Iowa State University 50011. Applications must be received by 01 October 1986 to assure consideration.

Biotechnology



Iowa State University
Ames, Iowa

PROJECT SUPERVISOR/ RESEARCH SCIENTIST



Ph.D. in Toxicology or related area preferred, with inhalation toxicology experience. Candidates with Ph.D. in Engineering with inhalation toxicology experience will be considered. Experience in replicate respiratory model casting required, with additional experience in computer simulation modeling preferred. Experience also required performing gas and particulate dosimetry studies with experimental animals, and correlating the results of these studies to man.

The individual selected for this position will provide technical supervision for eight research personnel performing physical and biomathematical respiratory modeling studies, and biostatistical tasks; perform research to develop mathematical dosimetry models for gases and particles; and serve as the primary scientific coordinator for modeling research including experimental animal research, physical replicate casting, and computer simulation modeling studies.

Please send curriculum vitae, including salary history and present salary requirements to:

Human Resources

NORTHROP SERVICES, INC.

P.O. BOX 12313, RESEARCH TRIANGLE PARK, N.C. 27709

Northrop Services, Inc. is an Equal Opportunity Employer.

Research Scientist

Cell Culture Biologist

Since our founding in 1983, we have established ourselves as a pioneer in the development of pediatric vaccines for childhood infectious diseases. Our prominent research staff needs your specialized talents in cell biology.

In this vital, results-oriented position, you'll have responsibility for developing and testing mammalian cell culture systems utilizing current state-of-the-art technology for high-density cell growth and product isolation and purification. Activities will also include overall management and quality control of tissue culture work related to cell and virus stocks. Credentials must include a PhD in Cell Biology and a minimum of 3 years related experience.

Salary is commensurate with academic and professional qualifications. For prompt, fully confidential consideration, please send your resume/curriculum vitae to: Praxis Biologics, Human Resources Department, 300 East River Road, Rochester, NY 14623.

**PRAXIS
BIOLOGICS**

Equal opportunity employer



Roche is offering a **RESEARCH SCIENTIST** position in the area of MOLECULAR NEUROBIOLOGY in its expanding Research Department in Milano, Italy.

We are seeking highly motivated individuals, who will work in close association with scientists of the University of Milano and in collaboration with our research facilities in Switzerland and the U.S., in the field of steroid action in the Central Nervous System of mammals.

The candidates—aged 26/28—will have a Ph.D. or equivalent degree in relevant scientific disciplines and at least two-year post-doctoral experience in rDNA technology, microbiology, biochemistry or neurobiology.

The starting salary will be dependent upon experience. Applications, including detailed Curriculum Vitae and names of three referees, should be sent by October 1, 1986 to:

**Prodotti Roche S.p.A.
Direzione del Personale
Piazza Durante 11
20131 MILANO (Italy)**

POSITIONS OPEN

DIRECTOR OF NMR LABORATORY, The Pennsylvania State University. The Chemistry Department is seeking a person to direct the operation of its NMR laboratory. The laboratory will be equipped with nine spectrometers including three high field and two solid instruments. Applications from persons with experience in running similar facilities are encouraged. The duties of director include the supervision of existing staff and the provision of an NMR service within the university. Applicants should have a knowledge of electronics and NMR technology sufficient to keep the laboratory at a state-of-the-art level. An important duty of the director will be the training of potential users of the spectrometers. It is also anticipated that the director will participate in teaching within the Chemistry Department including courses on theory and practice of NMR. It is expected that, where appropriate, the director will enter into collaboration with one or more of the research groups within the Chemistry Department, as well as maintaining his or her own research program. Send curriculum vitae and three confidential letters of recommendation to: **The Chairman of Search Committee, Box 4, Department of Chemistry, 152 Davey Laboratory, University Park, PA 16802.** Closing date for receipt of applications is 19 September 1986. *Affirmative Action/Equal Opportunity Employer.*

ECOLOGICAL/MATHEMATICAL MODELING

Postdoctoral position open immediately to help work on the development and study of regional scale models of the response of vegetation to nuclear winter and to chronic environmental stress. Large-scale computations will involve spatially heterogeneous landscapes, local extinctions, invasions, refugia, and so forth. Applicants should have a strong background in mathematical modeling of ecological systems with a Ph.D. in ecology or computational mathematics (or field related to either). The applicant should have expertise in a high level computer language such as FORTRAN. Please submit letter of application, résumé, selected reprints, transcripts, and three letters of recommendation. Application deadline 26 September. Contact: **Dr. J. R. Kercher, Department of Mathematical Sciences, University of Missouri—St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121.**

FACS TECHNICIAN

We are primarily interested in applicants with background experience in immunology, biophysics and molecular genetics. Duties include the operation and maintenance of a custom FACS 4 with a dye laser, preparation of samples for analysis, and development of new technology. The position requires extensive computer based data analysis and the ability to work cooperatively in a group. For consideration, please submit résumé and names of three references, including current employer to:

**S. B. Marion, Business Manager
Howard Hughes Medical Institute
Yale University Medical School
310 Cedar Street
New Haven, CT 06510
*Equal Opportunity Employer***

FACULTY POSITION IN BIOCHEMISTRY

Applications are invited for a tenure-track position at the level of **assistant professor**. The requirements include a Ph.D. and/or M.D. degree with a strong background in biochemistry and evidence of excellence in biochemical research. Applicants should have an established research interest in the area of molecular biology. The successful candidate will be expected to develop a vigorous and independent research program in an area of eukaryotic molecular biology. A limited amount of teaching of Ph.D. and/or M.D. students will also be expected. The biochemistry faculty have broad research interests including gene regulation, hormone action, enzyme regulation, protein structure, and neurochemistry. A growing graduate student population affords interaction with students pursuing the doctoral degree. The Medical College has a modern campus in an attractive environment with state-of-the-art equipment in well-furnished laboratories. Applications including curriculum vitae, reprints, and a statement of planned research should be sent, preferably by 15 October 1986 to: **Chairman of the Search Committee, Department of Biochemistry, Medical College of Ohio, C.S. 10008, Toledo, OH 43699.** Candidates should also request three persons to send letters of recommendation. *Equal Opportunity Employer.*

POSITIONS OPEN

EXECUTIVE DIRECTOR INDEPENDENT COMMISSION PROJECT HARVARD SCHOOL OF PUBLIC HEALTH

Applications invited for position of **Executive Director** for a project now being planned, on research and development on health problems of developing countries. Under a staff director, the executive director will manage all aspects of the work for a major review by an Independent International Commission of the strengths, weaknesses, and gaps in present research and development activities concerning health problems in developing countries, including the development of proposals to augment existing efforts when needs have been identified. The review will cover the biomedical and social sciences, applied and basic. Responsibilities of the executive director will include helping plan and organize: (i) relevant studies by experts in various parts of the world; (ii) meetings of the commission; and (iii) interim and final reports. Job will require substantial travel and discussions with policy-makers, researchers, and research funders. Knowledge of the subject area and program management skills are desirable. Two-year assignment, possibly leading to follow-on work. Minimum requirements: Ph.D. or M.D.; research experience in international health; developing country experience (preferably residential); demonstrated managerial competence. Previous experience in analyzing research and development policy, and strong writing skills preferred. Send applications to: **Independent Commission Project, Room 1102, 665 Huntington Avenue, Boston, MA 02115,** and include curriculum vitae, a brief statement of how this work would relate to applicant's career objectives, and the names of three references. *Applications are invited especially from women and minorities.*

FACULTY POSITION IN BIOCHEMISTRY/ MOLECULAR BIOLOGY UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

The Department of Biological Sciences at the University of California, Santa Barbara, invites applications for a tenure-track faculty position from outstanding scientists interested in the study of **eukaryotic systems by biochemical and genetic approaches**. Applicants must have a Ph.D. degree and postdoctoral training. The successful applicant will be expected to conduct a vigorous, independent research program and to contribute to teaching in genetic regulation and general biochemistry at the graduate and undergraduate levels. The assistant professor level is preferred, although in the case of an outstanding research record, a tenured appointment will be considered. Position effective 1 July 1987. Applicants should submit their curriculum vitae, selected reprints, a brief description of previous and anticipated research, and arrange to have at least three letters of reference sent by 15 November 1986 to: **Dr. John Carbon, Chairman, Department of Biological Sciences, University of California, Santa Barbara, CA 93106.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN PROTEIN CRYSTALLOGRAPHY

The Department of Biochemistry of Vanderbilt University is seeking a new tenured or tenure-track faculty member in the area of protein x-ray crystallography. It is our intention to complement existing interdepartmental strengths in macromolecular structure which include fiber diffraction, molecular modeling, NMR and EPR spectroscopy, sequence analysis, chemical modification of proteins, protein engineering, and so forth. This appointment may be made at the rank of professor, associate professor, or assistant professor; however, some preference will be given to applicants who are experienced, active investigators with recognized standing in the field. We expect this new faculty member to play an active role in helping to shape the direction of future development of macromolecular structural studies at Vanderbilt. Candidates for this position should send curriculum vitae, a description of research interests, and names and addresses of three persons who would be willing to write letters of recommendation on his or her behalf to: **Dr. James V. Staros, Chairman, Faculty Search Committee, Department of Biochemistry, Vanderbilt University, School of Medicine, Nashville, TN 37232.** *Vanderbilt University is an Equal Opportunity Employer.*

POSITIONS OPEN

DEPARTMENT OF GEOLOGY AND GEOPHYSICS UNIVERSITY OF CALIFORNIA, BERKELEY

Subject to final budgetary approval, the department is authorized to make two faculty tenure-track appointments, with effective date 1 July 1987, at the junior or senior level. Interested and qualified candidates who are engaged in innovative research in one of the following fields are encouraged to apply: radiogenic isotope geochemistry, basin evolution (including sedimentology, organic geochemistry, and hydrogeology), igneous petrology, and metamorphic petrology.

Applications, including the names of at least three references, should be sent to the chairman of the department by 1 November 1986.

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

The Department of Chemistry, School of Chemical Sciences, at the University of Georgia invites applications for two tenure-track positions (academic year) at any level beginning 1 September 1987. **ANALYTICAL and ORGANIC CHEMISTS** having solid records of accomplishment in chemical research (biological orientation preferred), at least 2 years of postdoctoral experience or equivalent, and a strong commitment to the development of a vigorous program of scholarly research which can compete for federal grant support are encouraged to apply. A strong interest in and aptitude for teaching both undergraduate and graduate courses in analytical and organic chemistry, respectively, should be demonstrated. A curriculum vitae, summary of research plans, and the names of three or more references must reach the following address by 15 October 1986.

**Dr. Harry D. Peck, Jr., Director
School of Chemical Sciences
Chemistry Building
University of Georgia
Athens, GA 30602**

The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

FACULTY POSITION IN CELL/ DEVELOPMENTAL BIOLOGY

Applications are invited for a tenure-track position in the Department of Biological Sciences at Carnegie-Mellon University. Applicants must be strongly motivated toward carrying out research in cell and/or developmental biology. Candidates who are just completing their postdoctoral research training will be considered for a position of starting assistant professor; exceptionally well-qualified individuals may be considered for appointment at a higher level. To apply, send curriculum vitae and a concise description of research interests (no more than three pages) and, in addition, have three letters of recommendation sent to:

**Dr. Elizabeth W. Jones
Search Committee
Department of Biological Sciences
Carnegie-Mellon University
4400 Fifth Avenue
Pittsburgh, PA 15213**

Carnegie-Mellon University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION DEPARTMENT OF MICROBIOLOGY UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)

The Department of Microbiology, College of Letters and Science, University of California, Los Angeles invites applications for a tenure-track faculty position. Applicants should have strong training and research experience in some area of host-parasite interactions, such as pathogenic mechanisms, cell-cell interactions, microbial toxins, and so forth. Emphasis must be at the molecular level. Candidates must be motivated toward excellence in teaching and basic research. Applicants must have a Ph.D. or equivalent degree and several years of postdoctoral experience. Please submit curriculum vitae, brief description of research goals, and the names of at least three references by 1 November 1986 to: **Dr. Robert W. Simons, Chairman of Search Committee, Department of Microbiology, University of California, Los Angeles, CA 90024.** *UCLA is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The Department of Chemistry at Purdue University solicits applications for tenure-track faculty positions in **ORGANIC CHEMISTRY AND PHYSICAL CHEMISTRY** to begin August 1987. Applicants will be considered at all ranks, but strong preference will be given to the rank of assistant professor. Minimum requirements at the assistant professor level include a Ph.D. degree and exceptional promise in research and teaching at the undergraduate and graduate levels. Applicants for higher ranks must have demonstrated distinguished research and teaching accomplishments. Areas of expertise are open. Curriculum vitae, including undergraduate and graduate transcripts for applicants at the assistant professor level, a summary of planned research, and three letters of recommendation should be sent by 15 November 1986 to: **Professor Harry L. Pardue, Head, Department of Chemistry, Purdue University, West Lafayette, IN 47907**. Applicants should state which position is of interest to them. *Purdue is an Equal Opportunity/Affirmative Action Employer.*

NEUROSCIENCE UNIVERSITY OF OREGON DEPARTMENT OF BIOLOGY

The Department of Biology seeks applicants for two tenure-track **FACULTY POSITIONS**. The appointments will be made in the Institute of Neuroscience, an interdepartmental, multidisciplinary scientific group, whose main strengths now lie in the area of neuroethology, visual systems, circadian rhythms, neuromuscular control mechanisms, and cellular and developmental neuroscience. The level of the appointments is open. Please send curriculum vitae with a statement of research interest and names of three referees before 20 November 1986 to: **Neuroscience Search Committee, Department of Biology, University of Oregon, Eugene, OR 97403**. *The University of Oregon is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS, MOLECULAR BIOLOGISTS, PRINCETON UNIVERSITY. The Department of Molecular Biology is seeking to fill junior and senior faculty positions. Research interest in growth factors, receptors or oncogenes using biochemical, genetic, or molecular approaches. Submit a brief description of proposed research program, curriculum vitae, and list of references to: **Dr. T. Shenk, c/o L. Cole, Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544**.

Princeton University is an Equal Opportunity/Affirmative Action Employer, M/F.

ORGANIC CHEMISTRY TEXAS A&M UNIVERSITY

Applications and nominations are invited for a tenure-track **FACULTY APPOINTMENT** in any area of organic chemistry at the assistant professor level, effective September 1987. Candidates must have a Ph.D. and preferably 1 to 2 years of postdoctoral experience. Appointments at the level of associate or full professor will also be considered for established investigators. Applicants must submit curriculum vitae, outline of research plans, and three letters of recommendation by 15 October 1986 to: **Head, Department of Chemistry, Texas A&M University, College Station, TX 77843**. *An Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF ZOOLOGY UNIVERSITY OF WASHINGTON MARINE INVERTEBRATE ZOOLOGIST

Tenure-track faculty position for a person with a broad knowledge of marine invertebrates. Those having research interests in biogeography, embryology, evolution, paleobiology, parasitology, or physiology are especially encouraged to apply. Appointment will probably be at the assistant professor level, although under exceptional circumstances the appointment could be at the level of associate or full professor. Responsibilities include teaching at the undergraduate and graduate level, and research in areas appropriate to the individual's field of specialization. Applications should include curriculum vitae, three publications, statements of research and teaching interests, and three letters of recommendation and should be sent to: **Professor Charles D. Laird, Chairman, Department of Zoology NJ-15, University of Washington, Seattle, Washington 98195**, by 15 November 1986. *Equal Opportunity/Affirmative Action Employer.*

SCIENTIST PROTEIN PURIFICATION & CHARACTERIZATION

Genentech, Inc., a leader in the field of biotechnology has an opening for a highly motivated and innovative Scientist with experience in the purification and characterization of proteins. This Scientist will join a multidisciplinary team of biochemists and biochemical engineers developing methods to purify and characterize recombinant proteins to be used as human pharmaceuticals. The successful candidate will have a PhD in either Biochemistry or Biochemical Engineering with at least 2 years postgraduate experience in either academia or industry with a demonstrated record of accomplishment.

Genentech offers competitive salaries and benefits and the opportunity to make a significant contribution to our organization. Please send resume to Human Resources Dept. #4264, **Genentech, Inc.**, 460 Point San Bruno Boulevard, South San Francisco, CA 94080. An equal opportunity employer.



Genentech, Inc.
Genentech, Inc.
Genentech, Inc.
Genentech, Inc.
Genentech, Inc.

HOFFMANN-LA ROCHE

Bronchopulmonary Research Senior Scientist

The expansion of Hoffmann-LaRoche's Bronchopulmonary Program has created an exciting career opportunity for a PhD in Immunopharmacology, Cell Biology, or Biochemistry with several years postdoctoral experience.

This individual will conduct and supervise research directed toward understanding *in vitro* mechanisms associated with the immunological sensitization and activation of cells mediating an allergic response. The goal of this laboratory will be to identify novel mechanisms to inhibit allergic mediator synthesis and release.

Successful candidates should have technical experience with cellular isolation techniques and techniques used to assay allergic mediators (HPLC, RIA, and bioassay techniques).

Roche offers a professional environment and an attractive compensation package. Please send resume and publication list to: Position AW, c/o Mrs. Eleanor Malone, Professional Employment & Staffing Specialist.



An equal
opportunity employer

**HOFFMANN-
LA ROCHE INC.**

Nutley, NJ 07110

*products that matter
from people who care*

POSITIONS OPEN

HEAD, DEPARTMENT OF GEOLOGY AND GEOPHYSICS, UNIVERSITY OF WYOMING. The University of Wyoming, Department of Geology and Geophysics seeks applicants for the tenure-track position of department head, starting fall semester 1987. Duties emphasize directing the department during an exciting period of development. Appointment will be at the full professor level and salary is open, commensurate with experience and qualifications. The applicant may be from any subdiscipline of the geosciences and should have developed an internationally recognized research program, preferably using quantitative approaches. A record of successful interaction with both industry and funding agencies is expected. The Department of Geology and Geophysics has 24 faculty, extensive modern instrumentation, and is research oriented. Integration of field and laboratory studies is emphasized.

Applicants should provide a résumé, names of three references, and a letter of application including a statement of current research interests and courses which the applicant feels qualified to teach. Applications must be postmarked no later than 31 October 1986, and sent to: **Dr. James E. McClurg, Acting Department Head, Department of Geology and Geophysics, P.O. Box 3006, University of Wyoming, Laramie, WY 82071.** *The University of Wyoming is an Equal Opportunity/Affirmative Action Employer.*

MARINE ZOOPLANKTON BIOLOGIST. Tenure-track faculty position, September 1987, beginning assistant professor level at \$24,000 to \$26,000 per academic year. Specialty may be any aspect of zooplankton studies; expertise in coastal or estuarine environments preferred. The successful candidate will be expected to teach, advise students, and develop a vigorous research program. Send curriculum vitae and names of three references by 31 October 1986 to: **Dr. E. J. Carpenter, Marine Sciences Research Center, State University of New York (SUNY)—Stony Brook, Stony Brook, NY 11794-5000.** *SUNY—Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK number 190.*

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.

MICROBIOLOGY FACULTY POSITIONS—IMMUNOLOGIST AND VIROLOGIST. Medical School, Department of Microbiology, seeks candidates for two assistant professorships (tenure track). Probable starting date between 1 June and 1 September 1987. Experience in molecular aspects of immunology or virology and interests in mechanisms of pathogenesis and host response to infections are desirable. Responsibilities include team-teaching in medical and graduate courses and development of an independent research program. Ph.D., M.D., or equivalent professional degree, plus postdoctoral research experience required. Salary commensurate with training and experience. Submit curriculum vitae and bibliography, description of research interests, major publications, and names of three professional references to: **Randall K. Holmes, M.D., Ph.D., Professor and Chairman, Department of Microbiology, c/o Civilian Personnel Division, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** Curriculum vitae will not be returned. *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

An opening is available at the Connective Tissue Research Institute (CTRI) for an **ESTABLISHED INVESTIGATOR** (4 years or more post-Ph.D.). We are seeking an individual with a history of achievement in cell biology or molecular biology relevant to connective tissues. Initial guaranteed salary support will be available for up to 3 years for the investigator and a technician during which time he/she will be expected to develop a fully funded research program.

The investigator will have access to all of the central laboratory facilities and services of the CTRI. Approximately 650 square feet of modern laboratory space will be made available to the investigator, plus approximately 120 square feet of furnished office space.

The CTRI is a component of the **UNIVERSITY SCIENCE CENTER** which is located at the campus of the **UNIVERSITY OF PENNSYLVANIA** and a modern urban research park and has affiliations with the Schools of Medicine and Dentistry of the University of Pennsylvania.

The Science Center will offer an attractive salary, along with a comprehensive benefit plan which includes medical, dental, life, disability, and retirement benefits.

Send curriculum vitae and bibliography to: **Dr. Nicholas A. Kefalides, CTRI, 3624 Market Street, Philadelphia, PA 19104.**

Equal Opportunity Employer

MOLECULAR BIOLOGIST MEHARRY MEDICAL COLLEGE

The Division of Biomedical Sciences at Meharry Medical College invites applications for a tenure-track molecular biologist position. Available January 1987. This individual will join a group of cell and molecular biologists and biochemists who are investigating numerous biomedical problems including tropical diseases. This department has highly funded faculty and an NIH Training Grant. The candidates should be committed to developing strong, independent research programs and participating in medical and graduate teaching. All areas of molecular biology will be considered. Applicants should submit curriculum vitae, a brief statement of research interests, and the names of three references by 15 October to:

**George C. Hill, Ph.D.
Division of Biomedical Sciences
Meharry Medical College
1005 D. B. Todd, Jr. Boulevard
Nashville, TN 37208**

Meharry Medical College is an Equal Opportunity Affirmative Action 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.

Immediate position for **MUSCLE PHYSIOLOGIST** to join a spaceflight research program at the Kennedy Space Center. Position requires a proven record of publication productivity and successful grantsmanship. Desired experience includes taking muscle biopsies and processing tissues, knowledge of processes of muscle atrophy effects of exercise on muscle, and interest and knowledge of effects of electrical stimulation on muscle. Excellent facilities and research support personnel are available. Submit curriculum vitae and three references to: **J. R. Puleo, The Bionetics Corporation, Mail Code BIO-1, Kennedy Space Center, FL 32899.** *Equal Opportunity Employer.*

POSITIONS OPEN

MOLECULAR BIOLOGIST/GENETICIST University of California, Riverside Department of Nematology

Applications are invited for an **assistant professor** position in the Department of Nematology. The opening is a tenure-track appointment in conjunction with the College of Natural and Agricultural Sciences and the Agricultural Experiment Station. The successful candidate will be expected to develop an innovative, vigorous, and independent research program on nematodes at the molecular level. Potential research areas might include genetics of *Caenorhabditis elegans*, identification of virulence, and susceptibility genes in nematode/plant interactions, molecular genetics of nematode development, and molecular aspects of nematode resistance to nematocides. This position will include limited teaching responsibilities and graduate student supervision. A Ph.D. degree in any of the several fields related to molecular genetics is required. Applications must be received by 31 October 1986.

Applicants should forward curriculum vitae, reprints of research publications, statement of research interests, and a list of four references to: **Dr. E. G. Platzer, Department of Nematology, University of California, Riverside, CA 92521.** *The University of California, Riverside is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

MOLECULAR BIOLOGIST/MICROBIOLOGIST. Associate/assistant professor; tenured or tenure-track position with 90 percent research and 10 percent teaching. Candidates must have a strong research record in recombinant DNA technology including gene cloning and expression. Must be able to apply molecular approach to livestock disease research with emphasis on infectious diseases and immunology of enteric and respiratory systems. Will present graduate lectures or courses and advise graduate students. Department has excellent research and animal isolation facilities. Ph.D. and appropriate postdoctoral experience required. Apply with current curriculum vitae, three letters of reference, and a summary of research interests by 1 November to: **John A. Schmitz, Head, Department of Veterinary Science, University of Nebraska—Lincoln, Lincoln, NE 68583-0905.** Telephone: 402-472-2952. *Affirmative Action/Equal Opportunity Employer.*

NEUROBIOLOGY-TENURE-TRACK POSITION

The Department of Biology, University of Iowa, invites applications for a tenure-track faculty position, rank and salary negotiable. Any neurobiologist whose research interest is in an area of cellular, molecular, or developmental neurobiology may apply. Preference will be given to persons whose talents complement those of current faculty and whose interests will facilitate interaction among existing research programs. Postdoctoral experience is required. In addition to establishing a strong research program, the successful applicant will be expected to participate in undergraduate and graduate teaching. Applications will be considered as they are received until the position is filled. Send curriculum vitae, brief description of research goals, relevant publications, and arrange to have three letters of recommendation sent to: **Dr. C.-F. Wu, Search Committee, Department of Biology, University of Iowa, Iowa City, IA 52242.** *The University of Iowa is an Affirmative Action/Equal Opportunity Employer.*

VISITING SCIENTIST

Lovelace Medical Foundation, an independent, non-profit research organization in Albuquerque, has openings for visiting scientists in physiology, biomedical engineering, or a combination of these fields. Our major research efforts are in cardiovascular and pulmonary physiology (ventilatory control, gas exchange), Doppler ultrasound studies of blood flow, and in-vivo nuclear magnetic resonance studies of blood flow and metabolism. Financial arrangements, as well as the lengths of appointments are negotiable, but scientists with significant financial support from their home institutions or from grants will be looked upon with favor. Please contact: **Jerry G. Davis, Director, Bioengineering Research Division, Lovelace Medical Foundation, 2425 Ridgcrest Drive, SE, Albuquerque, NM 87108.** *Lovelace is an Equal Opportunity/Affirmative Action Employer, M/F/H/V.*

**INTERNATIONAL CENTER FOR MEDICAL RESEARCH
FRANCEVILLE - GABON**

WITH OBJECTIVE OF IMPROVING FECONDITY (STERILITY, NEWBORN AND INFANT MORTALITY, MOTHER-CHILD RELATIONSHIPS, DEVELOPMENTAL PROBLEMS)

RECRUITS FOR THE DEPARTMENT OF REPRODUCTIVE BIOLOGY

- **A CHIEF OF DEPARTMENT** : MD, PhD, specialist in endocrinology with experience in basic and clinical research.
- **A TECHNICIAN** highly qualified in hormones assays (RIA, HPLC).

SUBJECTS OF RESEARCH:

- Hormonal factors of human sterility, pregnancy and lactation and their relationships with infectious diseases (malaria, STD, parasitosis) and malnutrition.

The C.I.R.M.F., created in 1979, employs 170 people of 9 nationalities. It includes Departments of Immunology, Reproductive Biology, Microbiology, Anato-mo-Pathology and Parasitology. It has a clinical laboratory (17 000 samples/year) and gynecological clinical facilities (30 beds) at the general hospital. It possesses the most modern investigation equipment and harbours a Primatology Centre with 225 monkeys and apes of 6 species.

CONDITIONS:

- Two-year contract, renewable by mutual agreement. Attractive salary, negotiable, depending on qualifications and experience, plus expatriation allowance. Knowledge of French is essential.
- Sixty days annual leave including family transportation, free housing in a complex with tennis and swimming pool.

FOR FURTHER INFORMATION OR APPLICATION, SEND C.V., LIST OF PUBLICATIONS, LIST OF 3 REFERENCES, PRESENT SALARY, TO : THE DIRECTOR OF THE C.I.R.M.F., 128 BD HAUSSMANN, 75008 PARIS (FRANCE).

SCIENTISTS— Ph.D. and B.S. levels

A Southern California Clinical Diagnostics Co. is seeking personnel with backgrounds in immunoassay reagent development.

Appropriate skills include protein purification, coupling of proteins to solid supports, enzyme-antibody conjugation and EIA assay methodology. Experience in the purification and characterization of viruses, viral antigens, together with a background in infectious diseases would be an asset.

Send resume to

**Box #151
SCIENCE**

CENTER FOR TECHNOLOGY AND POLICY BOSTON UNIVERSITY

BELL AND HOWELL POSTDOCTORAL FELLOWSHIPS

The Center invites nominations and applications for three **Bell and Howell Postdoctoral Fellows in Technology and Policy** to perform research in the following areas:

1. Corporate decision making
2. Industrial innovation and competitiveness
3. Technology and work attitudes

Qualifications: A doctorate in Engineering, Management, the Social Sciences, Policy Studies, Physical Science, or Biological Science.

Initial appointment for one year with a stipend of \$25,000 to \$30,000, with possibility of long-term appointment. Appointments will be made for February 1, 1987 and June 1, 1987. Applications due by November 1, 1986.

SENIOR RESEARCH PROFESSOR OF TECHNOLOGY AND POLICY

The Center invites applications from **senior scientists and engineers** with a background in technology and public policy. The position will include responsibility for:

1. **Establishing a technology and public policy liaison group** with industry and government
2. **Conducting and directing research** on technology policy
3. **Teaching and advising students** in the Center's Masters Program in Technology Strategy and Policy
4. **Participating in activities** of the Center for Technology and Policy

Selection will be based on relevant work experience, research involvement, and publications relating to technology and policy. This is a senior level appointment with salary commensurate with experience. An appointment will be made for February 1, 1987 or September 1, 1987.

Inquiries should be directed to:

**Gerald Gordon, Director
Center for Technology and Policy
Boston University
197 Bay State Road
Boston, MA 02215**



The University is an equal opportunity employer.

POSITIONS OPEN

NEUROSCIENTIST—RESEARCH ASSOCIATE/POSTDOCTORAL POSITION available to study the neurophysiology of locus coeruleus and nucleus basalis neurons in young adult and aged monkeys during performance of cognitive tasks. Experience in behavioral and extracellular recording techniques in waking primates is sought. Two years minimum funding, salary commensurate with experience, excellent fringe benefits. Submit curriculum vitae and names of three references to: **Dr. Gary Aston-Jones, Department of Biology, New York University, Washington Square Center, New York, NY 10003.** *An Equal Opportunity/Affirmative Action Employer.*

ORGANIC CHEMIST

Washington University, St. Louis, Missouri invites applications for a tenure-track position in organic chemistry in the Department of Chemistry. Primary attention will be given to applicants at the assistant professor level, but candidates with distinguished records in research and teaching will also be considered for higher level appointments. Bioorganic, synthetic organic, physical organic, organometallic, and other varieties of organic chemistry are all of potential interest to the department. Liberal start-up funds will be available to the successful applicant. Candidates are requested to submit by 15 December 1986 curriculum vitae and a concise but reasonably detailed statement of research interests and professional objectives, and arrange to have three letters of reference sent to: **Professor David Gutsche, Chairman, Search Committee, Department of Chemistry, Washington University, St. Louis, MO 63130.**

Washington University is an Equal Opportunity/Affirmative Action Employer.

PHYSICIST/EXPERIMENTATION—to design and construct experiment hardware for MAGNET, high-speed digital network testbed; must know: emitter coupled logic, real-time data acquisition and control, software development techniques, UNIX, C and assembler programming languages. Ph.D. in experimental physics, 35 hours per week, \$37,700 per year. Mail résumé to: **New York State Job Service, JO number NY8021901, 175 Remsen Street, second floor, New York, NY 11201.**

PHYSIOLOGIST RESPIRATORY OR CARDIOVASCULAR

Lovelace Medical Foundation, an independent, non-profit research organization, is seeking a Ph.D. or M.D./Ph.D. senior scientist interested in one or more of the following or related areas: pulmonary ventilation, pulmonary gas exchange, ventilatory or cardiovascular control, hemodynamics, or exercise. The successful candidate will have established a strong research program including a quality publication record in one of the above areas. Leadership skills and creative abilities in an interdisciplinary environment will be definite assets. Finally, candidates should possess demonstrated ability to attract outside funding.

The Lovelace Medical Foundation presents an excellent opportunity for the dedicated researcher to pursue scientific goals in an intimate environment of fellow physiologists, engineers, and physicists. There is currently strong technological backing in areas utilizing Nuclear Magnetic Resonance, Doppler Ultrasound, and Flow Cytometry.

Send curriculum vitae, names of three references, and a brief statement of future research goals by 1 November 1986 to: **Jerry G. Davis, Director, Bioengineering Research Division, Lovelace Medical Foundation, 2425 Ridgecrest Drive, SE, Albuquerque, NM 87108.**

An Equal Opportunity/Affirmative Action Employer, M/F/H/V.

POSTDOCTORAL NEUROBIOLOGY POSITION: Opening available for an individual interested in studying the physiological, biochemical, and pharmacological properties of ion channels at nerve terminals. Background in membrane biochemistry essential; electrophysiological experience desirable. Send curriculum vitae, three letters of reference and brief description of research experience by 1 October 1986 to: **Dr. Mordecai P. Blaustein, Department of Physiology, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

PHYSIOLOGY INSTRUCTORSHIP available for candidate with Ph.D. in physiology, plus 2 years postdoctoral research experience in studies of Ca^{2+} in vascular smooth muscle. Advanced mathematical and computer modeling skills essential, together with experience with metal ion buffer system and in vitro studies of vascular smooth muscle to complement studies in ongoing program project. Teaching responsibilities in human physiology and advanced cellular physiology. Send curriculum vitae to: **Dr. R. A. Murphy, Department of Physiology, School of Medicine, Box 449, University of Virginia, Charlottesville, VA 22908.** *The University of Virginia is an Affirmative Action/Equal Opportunity Employer.*

PLANT MOLECULAR BIOLOGY

The Department of Botany, The University of Texas at Austin, is seeking applicants for a full-time, faculty position to direct research, develop a graduate program, and teach in the area of plant molecular biology. Rank and salary are open, based on qualifications. Applicants should possess demonstrated capabilities for research in some molecular aspect of plant biology involving the use of recombinant DNA technology. Send curriculum vitae, statement of future research goals, and names of three references by 31 October 1986 to: **Dr. Guy Thompson, Chairman, Search Committee, Department of Botany, The University of Texas at Austin, Austin, TX 78713.**

POSTDOCTORAL AND RESEARCH ASSISTANT

Postdoctoral to work on cloning genes involved in solvent production in *Clostridia* and analyzing mutants. Project involves DNA isolation and analysis, vector development, and association with fermentation group in chemical engineering department. Experience with recombinant DNA and anaerobes desired. Also, an anaerobic research technician is required to maintain and test mutant and natural *Clostridia* strains. Send curriculum vitae and names of references to: **Dr. G. Bennett, Department of Biochemistry, Rice University, P.O. Box 1892, Houston, TX 77251.**

An Equal Opportunity Employer

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE POSITION available immediately for ongoing project characterizing neurotransmitter receptors in the normal, experimentally altered and developing primate neocortex. Techniques used include in vitro receptor autoradiography and computerized densitometry to be integrated with other neuroanatomical and neurophysiological approaches. Knowledge of cortical neuroanatomy and background in neuropharmacology desirable. Applicant to collaborate with established interdisciplinary research group as part of Jacob Javits Center for Excellence in Neuroscience. Send curriculum vitae and letters of recommendation to: **P. Rakic, Chairman, Section of Neuroanatomy, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW. Postdoctoral position available 1 October 1986 to study electrophysiological mechanisms of smooth muscle cell activation with primary emphasis on arterial muscle. Applicants should have experience in basic microelectrode techniques for intracellular recording from cardiac or smooth muscle. Patch-clamp methodology preferable. Projects to include voltage clamping of isolated arterial muscle in primary culture utilizing whole cell recording techniques with patch/suction electrodes. Send curriculum vitae and three letters of reference to: **David R. Harder, Ph.D., Director of Neurology Research, The Medical College of Wisconsin, Veterans Administration Medical Center, 5000 West National Avenue, Research Service number 151, Milwaukee, WI 53295.** Salary approximately \$20,000 annually. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION, available 1 October to participate in studies of biochemistry and molecular biology of neural growth factors and growth-associated proteins. Ph.D. in biochemistry preferred. Contact: **Dr. Seth Finkelshtein, Mailman Research Center, McLean Hospital, Belmont, MA 02178; telephone: 617-855-3206.** *McLean Hospital is affiliated with Harvard Medical School and is an Equal Opportunity Employer.*

POSITIONS OPEN

PLANT MOLECULAR/CELLULAR BIOLOGIST

The Institute of Molecular Biology of the University of Oregon intends to fill a tenure-track position for fall, 1987 in cellular/molecular biology, probably at the assistant professor level, although senior scientists will be considered. Preference will be given to candidates using molecular/genetic approaches to understand basic cellular mechanisms in plants, but other research areas are not ruled out. Teaching will likely be in the Department of Biology although affiliation with the Department of Chemistry is possible. Applications including curriculum vitae with a summary of research goals should be sent to: **Dr. Vicki Chandler, Department of Biology, University of Oregon, Eugene, OR 97403.** The closing date is 15 November 1986. *The University of Oregon is an Equal Opportunity/Affirmative Action Employer.*

POLAR ICE CORE STUDIES/ATMOSPHERIC GEOCHEMISTRY. Applications are invited for a postdoctoral position in a research program on methane and trace gas records in polar ice. Appointment and salary at postgraduate research or assistant research level, depending on experience and qualifications. This position will involve field work in Greenland and Antarctica and laboratory studies in gas chromatography and mass spectrometry. Applicants should have a Ph.D. in chemistry, geochemistry, or physics, experience in gas chromatography and vacuum techniques, aptitude for fieldwork under rather grim conditions, and a strong interest in entering a fascinating new research field. Apply to: **H. Craig, A-020, Geological Research Division, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA 92093.** Position open until filled. *Equal Opportunity/Affirmative Action Employer, and not a bad place to live.*

POSTDOCTORAL FELLOW(S) Comparative limnology, Lake ecosystems

One opening now and probably one this winter. Salary: \$21,000. Send curriculum vitae, three letters of recommendation, and a research proposal to: **Dr. R. H. Peters, Limnology Research Centre, McGill University, 1205 Avenue Dr. Penfield, Montreal, Quebec, Canada H3A 1B1.**

POSTDOCTORAL POSITION CELL BIOLOGY/BIOCHEMISTRY/ MOLECULAR BIOLOGY

Available **IMMEDIATELY** in Washington, D.C., United States area, for molecular investigation of regulation of glycoprotein biosynthesis. Background and experience in recombinant DNA techniques will be an advantage. Excellent stipend and fringe benefits. Recent Ph.D. in above or related fields should send curriculum vitae and get letters of recommendation sent to:

**Dr. D. C. Westhoff, Chairman
Department of Animal Sciences
University of Maryland
College Park, MD 20742**

Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION in cell biology/biochemistry to study the role of thrombospondin in hemostatic mechanisms. Candidate should be a recent Ph.D. graduate in biochemistry; have experience in protein and peptide chemistry, immunology; knowledge of electron-microscopic techniques helpful. Joint appointment will be held in an appropriate department at Harvard Medical School. Send curriculum vitae, a letter describing research interests, and the names of three references to: **Melanie Webster, JG-10, DANA-FARBER CANCER INSTITUTE, 44 Binney Street, Boston, MA 02115.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION is available in microbial ecology/soil microbiology. Experience in bacterial genetics and/or DNA plasmids research is desirable. Send application, including curriculum vitae, and have three letters of reference sent to: **Dr. R. Y. Morita, Department of Microbiology, Oregon State University (OSU), Corvallis, OR 97331-3804.** *OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.* Application deadline is 19 September 1986.

POSITIONS OPEN

POSTDOCTORAL POSITIONS are available immediately to participate in an active research program studying the diagnostic and therapeutic potential of anti-human tumor monoclonal antibodies. Candidates with expertise in immunology, biochemistry, or molecular biology required. Experience in hybridoma production, protein purification, radioimmunologic imaging, drug/toxin immunoconjugation, and/or gene cloning highly desirable. A familiarity with RIA, ELISA, Western blots, cytotoxicity assays, flow cytometry, and human/mouse tumor models also desirable. Salary will be \$20,000 to \$24,000, depending on experience, plus 1-month salary towards relocation expenses. Send curriculum vitae, description of relevant experience, and three letters of reference to: **Dr. George L. Wright, Jr., Department of Microbiology and Immunology, Eastern Virginia Medical School, P.O. Box 1980, 700 Olney Road, Norfolk, VA 23501.** A Nondiscriminatory, Affirmative Action Employer.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY OF REGULATED SECRETION NATIONAL INSTITUTES OF HEALTH

Postdoctoral (staff fellowship) position is available for a recent Ph.D. molecular biologist interested in studying neurotransmitter-controlled secretory events (for example, protein processing, routing; ion fluxes, fluid movement). Applicants should have a good background in eukaryotic recombinant DNA techniques. Experience in constructing phage and plasmid libraries, fusion protein screening, and analysis of gene structure and expression is desirable. A familiarity with secretory systems is not required. Salary: \$20,000 to \$24,000 per year, depending on experience. Applicants should submit their curriculum vitae, bibliography, and the names of three references to: **Dr. Bruce J. Baum, Clinical Investigations Section, National Institute of Dental Research, National Institutes of Health, Building 10, Room 1A-06, Bethesda, MD 20892.** An Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study effects of prenatal exposure to ethanol on endocrine systems involved in growth. Salary \$21,948 per year. Applicant should have experience with animal models used in ethanol research. Send curriculum vitae and three letters of reference to: **Dr. Frank Talamantes, Thimann Laboratories, University of California, Santa Cruz, CA 95064. Telephone: 408-429-2295.** Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA, IRVINE POSTDOCTORAL RESEARCH IN PSYCHOBIOLOGY

The Department of Psychobiology, University of California, Irvine (UCI), anticipates filling several postdoctoral research positions in the laboratories of the faculty with starting dates between 1 February 1986 and 31 December 1986. The current faculty and their research interests are: **D. Aswad** (neurochemistry); **M. Baudry** (cell biology and neurochemistry); **C. Cotman** (synaptic growth and plasticity); **R. Josephson** (comparative physiology of muscles); **M.-L. Kean** (linguistics and neural mechanisms of language processing); **H. Kil-lackey** (development neuroanatomy); **M. Leon** (developmental psychobiology); **G. Lynch** (physiology, neurochemistry); **J. Marshall** (neural plasticity of catecholamines); **J. McGaugh** (memory, storage processes); **R. Miledi** (synaptic physiology and molecular neurobiology); **I. Parker** (synaptic physiology); **D. Perkel** (theoretical neurobiology); **A. Starr** (cognition, sensation and evoked potentials); **K. Sumikawa** (molecular neurobiology); **N. Weinberger** (neural mechanisms of learning); and **P. Yahr** (neuroendocrinology and behavior).

Candidates should address inquiries to: **Postdoctoral Research Advisor, Department of Psychobiology, University of California, Irvine, CA 92717.**

UCI is an Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately for candidates with Ph.D. in immunology or cell biology to work in research and transplant immunology. Expertise in endothelial cells, dendritic cells, or lymphocytes preferable. Apply to: **Dr. Venkat Rao, Department of Surgery, University of Wisconsin, 600 Highland Avenue, Madison, WI 53792.** The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.

SCIENTISTS

Beckman Instruments, Inc., a leader in the clinical diagnostics field has immediate openings for experienced Scientists.

Staff Scientist

This individual will lead a group of 4-5 people and must possess strong leadership qualities and supervisory experience, as well as an ability to work independently. You should have a Ph.D. in Biochemistry, Biology, or equivalent with 4-5 years industrial experience in the area of protein electrophoresis development. Applied knowledge of electrophoresis methodology including IEP, IFE, isoenzyme electrophoresis, agarose electrophoresis and EF methods is required.

Scientists/Chemists

We currently have several positions available in our Immunochemistry Development Department for scientists with current knowledge of immunochemical methods, including enzyme-linked immunoassays. Responsibilities will include: design, development and evaluation of immunoassay reagents, participation in system integration of immunochemistry analysis, and feasibility studies for new immunoassay methods. Experience with nephelometric instrument systems highly desirable. These positions require a BS or MS in Chemistry, Biochemistry or Immunology and over 1 year of professional industrial experience in Immunochemistry.

Please send your resume and salary history to: **Beckman Instruments, Inc., Professional Staffing, 200 S. Kraemer Blvd., Brea, CA 92621.** An Affirmative Action Employer.

DIAGNOSTIC SYSTEMS GROUP

BECKMAN

A SmithKline Beckman Company

RESEARCH SCIENTIST

Cetus Corporation, a leader in biotechnology, is looking for an *in vivo* research scientist with experience as a comparative cellular physiologist to join a growing preclinical investigations group. This individual will be expected to explore mechanisms of action for systemically administered biotechnology-derived protein therapeutics, through active direct involvement with *in vivo* experimentation. He or she will be part of a team of experienced protein toxicologists, toxicologic pathologists, physicians and pharmacologists studying biological response modifiers and antibody-directed therapeutics.

Applicants should have a Ph.D. in a relevant field and a demonstrated record of productive investigative skills. They will also have extensive experience with *in vivo* experimental techniques. In addition, research experience with hormones, systemic immunological mechanisms or biotechnology-derived proteins would be pertinent and desirable.

Cetus offers competitive salaries and excellent benefits. For confidential consideration, please send your resume to:

CETUS CORPORATION
Box JKS
1400 Fifty-third Street
Emeryville, CA 94608

EOE



POSITIONS OPEN

POSTDOCTORAL POSITION available to study airway epithelial transport at the University of Connecticut Health Center School of Medicine, Pediatric Pulmonary Medicine. Primary focus is on coordinating and supervising expanding division laboratory. Ph.D. in physiology; experience in electrophysiology and epithelial transport required.

Please send résumé and three letters of reference to: **Barbara Nawrocki, MPH, Department of Pediatrics, University of Connecticut Health Center, L5090, 263 Farmington Avenue, Farmington, CT 06032.**

An Affirmative Action/Equal Opportunity Employer, M/W/H.

A **POSTDOCTORAL POSITION** will be available beginning in 1987 in the Department of Pharmacology at Cornell University to study excitatory amino acid receptors and ion channels using patch clamp electrophysiological and receptor binding techniques.

Applicants should have a Ph.D. or clinical degree with research experience in electrophysiology and/or membrane biophysics. Send curriculum vitae, list of research experience, and the names of three referees to:

**L. M. Nowak
Department of Pharmacology
New York State College of Veterinary Medicine
Cornell University
Ithaca, NY 14853-6401**

Cornell University is an Affirmative Action/Equal Opportunity Employer/Educator.

POSTDOCTORAL RESEARCH ASSOCIATE. Position available for recent doctorate (experimental nuclear physicist or chemist) with experience in intermediate energy nuclear reactions, and familiarity with CAMAC electronics and software development. The appointee will participate in a variety of basic and applied nuclear physics research utilizing the Brookhaven National Laboratory (BNL) 200-MeV proton Linac. Responsibilities will include neutron and gamma-ray detector development, experimentation, and data analysis. Opportunities will exist for collaborative research at other BNL facilities, depending on research interests. Apply by sending résumé that includes the names of three references and publications list to: **Pierre Grand, Department of Nuclear Energy, Building 902C, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal Opportunity Employer, M/F.**

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately to study molecular mechanisms of autonomic regulation of cardiac function, with emphasis on adenylate cyclase and GTP-binding proteins. The ideal candidate will have a recent Ph.D. in biochemistry, pharmacology, or related area and be experienced in the following areas: autonomic receptors, adenylate cyclase, protein purification, membrane biochemistry, and/or molecular biology. This laboratory is located in the Pharmacology Department of the Indiana University School of Medicine, and the position offers unique opportunities for interaction with other scientists interested in molecular mechanisms of cardiac regulation at the nearby Krannert Institute of Cardiology. Send curriculum vitae and the names of three references to: **John W. Fleming, Ph.D., Assistant Professor of Pharmacology and Medicine, 635 Barnhill Drive, Medical Science Building, Room A-402, Indianapolis, IN 46223.**

POSTDOCTORAL RESEARCH POSITIONS

Several positions are available immediately for postdoctoral research fellows at the University of Florida in the Department of Oral Biology.

Salaries depend on experience. Candidates may work in the areas of molecular biology, anaerobic microbiology, monoclonal antibody production, and pathogenesis as it relates to periodontal disease or caries.

Interested applicants should send curriculum vitae, representative reprints, and three references before 15 December 1986 to:

Dr. Arnold S. Bleiweis, Professor and Chairman, Department of Oral Biology, Box J-424, JHMH, Gainesville, FL 32610.

The University of Florida is an Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE-SHIP available with the **San Diego State University (SDSU) Systems Ecology Research Group** for a **Physiological Plant Ecologist** to investigate the ecosystem-level effects of long-term atmospheric carbon dioxide enrichment in arctic tundra. Experienced in gas exchange, plant and ecosystem carbon balance, computerized data acquisition and control, analysis of large data sets, and simulation modeling would be helpful. Salary from \$1760 per month, depending upon qualifications and experience. Applications accepted until 30 September, or until a suitable applicant is found. Submit curriculum vitae, a letter detailing research experience and goals, and have three letters of reference sent to:

**Dr. Walter C. Oechel
Systems Ecology Research Group
c/o Personnel Office
San Diego State University Foundation
5178 College Avenue
San Diego, CA 92182**

POSTDOCTORAL RESEARCH POSITION IN MOLECULAR GENETICS. Available immediately to join ongoing studies of genetic analysis of common human diseases including cancer, cystic fibrosis, and autoimmune diseases. Experience in gene mapping using RFLP's and molecular techniques of probe analysis is desirable. Position is 2 years, with possibility of extension. Send résumé to: **Dr. Mary-Claire King, School of Public Health, University of California, Berkeley, CA 94720.**

REPRODUCTIVE MOLECULAR BIOLOGIST. THE DEPARTMENT OF VETERINARY BIOMEDICAL SCIENCES, UNIVERSITY OF MISSOURI-COLUMBIA, is accepting applications for a full-time, tenure-track faculty research position at the assistant professor level. Qualifications include D.V.M. and/or Ph.D. with interest in biomedical aspects of animal reproductive biology; desire and ability to conduct fundamental externally funded studies on the basic mechanisms of domestic animal reproduction; and expertise in some aspect of endocrinology, neuroendocrinology, or reproductive immunology at the molecular level. The successful applicant will be expected to participate in the Reproductive Biology Cluster Group of Food for the 21st Century, a long-range research program in foods and agriculture at the University of Missouri-Columbia, and develop research projects that apply advanced biotechnology procedures to improve male and female livestock reproduction. Opportunities for research collaboration with the Animal Science Department, Theriogenology, and interdisciplinary research teams are excellent. Some graduate level or professional instruction will be expected. Applications will be accepted until 1 October 1986, or until an acceptable applicant is recruited. Applicants should submit their résumé including relevant experience, publication list, and names of three references to: **Dr. V. K. Ganjam, Veterinary Biomedical Sciences, College of Veterinary Medicine, University of Missouri-Columbia, Columbia, MO 65211.**

RESEARCH ASSOCIATE position available fall/winter, 1986 for a recent Ph.D. to participate in studies on biosynthesis, modification, and organization of neuronal cytoskeletal proteins. The focus will be on neurons in culture and in developing embryos, using biochemical, immunohistochemical, and ultrastructural approaches. Send résumé to: **Dr. Gudrun S. Bennett, Department of Zoology, Bartram Hall, The University of Florida, Gainesville, FL 32611. An Equal Opportunity/Affirmative Action Employer.**

(ANTICIPATED) RESEARCH ASSOCIATE III. M.S. in biological sciences, or equivalent knowledge in electron microscopy. Preparation of animal tissue for transmission and scanning electron microscopy, as well as light microscopy. Assist faculty and student research projects involving EM. Manage departmental darkroom facilities and coordinate use of common EM and darkroom facilities with other life science staff. Send application letter, résumé, and names of three references to: **Dr. W. B. Stickle, Acting Chairman, Department of Zoology and Physiology, Louisiana State University, Baton Rouge, Louisiana 70803-1725.**

LSU is an Equal Opportunity Employer.

POSITIONS OPEN

PROTEIN BIOCHEMIST—Proficient in purification and characterization of connective tissue proteins using ion-exchange, gel exclusion and affinity chromatography, isoelectric focusing, hydroxyapatite chromatography, HPLC, electrophoresis, blot transfer, and tissue culture. Knowledge of producing and characterizing monoclonal and polyclonal antibodies. Identify new proteins in bone dentin and tumor tissues. Understand the molecular mechanisms of isolation of receptors for growth factors.

Requirements include a doctorate in biochemistry or biology, and at least 2 years of postdoctoral and 1 year of practical experience involving protein biochemistry of protein purification. Forty hours per week: Salary negotiable. Position located at University of California, Los Angeles.

Résumé only to: **Lois Erlanger, 1000 Veteran Avenue, Room A3-34, Los Angeles, CA 90024.**

RESEARCH ASSOCIATE

Because of an expansion of our Division of Gastroenterology, an opportunity exists for a research associate to join Winthrop-University Hospital, a major teaching affiliate of Stony Brook, as director of gastrointestinal research. The successful candidate will have a Ph.D. in physiology or pharmacology, preferably with 2 years of postdoctoral research experience in studying motility of the gastrointestinal tract with in vitro and in vivo techniques. This is a hospital based position with research funds provided. We offer a professional work environment, salary commensurate with experience, and a competitive benefit package. Interested candidates should submit curriculum vitae and names of two references to: **Robert Burakoff, M.D., Chief, Gastroenterology Division, Winthrop-University Hospital, 259 First Street, Mineola, Long Island, NY 11501.**

JOINT INSTITUTE FOR LABORATORY ASTROPHYSICS

JILA (operated jointly by the U.S. National Bureau of Standards and the University of Colorado) is devoted to research, study, and teaching in atomic and molecular physics, laser physics, astrophysics, precision measurements, geophysical measurement, and related areas. Applications are invited for two programs:

1. **RESEARCH ASSOCIATESHIPS**, for advanced research by recent Ph.D.'s. Applications are accepted and considered anytime throughout the year.
2. **VISITING FELLOWSHIPS**, for advanced research by senior scientists. Deadline for completed applications is 9 January 1987.

Further information can be obtained from: **The Secretary, Visiting Scientists Program, JILA, Box 440, University of Colorado, Boulder, CO 80309-0440.**

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

UNIVERSITY OF WASHINGTON Department of Atmospheric Sciences

RESEARCH FACULTY POSITION available for scientist with experience in the use of dynamical models for long-range weather prediction or climate simulation. The successful candidate will direct a research project designed to explore the feasibility of long-range weather prediction on time scales of weeks to seasons, working in collaboration with faculty members in the Department of Atmospheric Sciences. Duties will also include supervising graduate student research and possibly some graduate instruction. The project and the director's salary will be funded through research grants. It is anticipated that the position will be filled at the research associate professor or research professor level. Ph.D. or equivalent required. Further information may be obtained by contacting: **The Chair of the Search Committee, Professor Dennis L. Hartmann; telephone: 206-543-7460.** Deadline for application is 15 October 1986.

Applicants should send curriculum vitae, bibliography, description of research and teaching interests, and the names of four references to:

**Professor Dennis L. Hartmann
Chair, Search Committee
Department of Atmospheric Sciences, AK-40
University of Washington
Seattle, WA 98195**

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

Immunologist

Syntex, an international leader in the pharmaceutical and health care industry, is seeking a Cellular Immunologist to join our growing Department of Inflammation Biology.

You will be responsible for performing basic research on the immunological mechanisms of chronic inflammation. You must have 2-3 years' relevant postdoctoral experience; experience in cutaneous models of inflammation is preferred but not mandatory.

Syntex offers outstanding research facilities and a competitive salary and benefits package. For consideration, please send your resume to Syntex, Professional Staffing, Dept. PS, 3401 Hillview Avenue, Palo Alto, CA 94304. An equal opportunity employer.



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

BUILDING A NEW LAB?

LET THE SCIENCE FREE PRODUCT
INFORMATION SERVICE PUT YOU IN
TOUCH WITH THE VENDORS WHOSE
PRODUCTS YOU WILL NEED.

SIMPLY WRITE US A LETTER STATING
THE SPECIFICS ABOUT YOUR PROPOSED
LAB AND WE WILL DO THE REST.

WRITE TO:

SCIENCE MAGAZINE
NEW LAB SERVICE DEPT.
1515 BROADWAY
NEW YORK, N.Y. 10036

DNAX Research Institute

Protein Chemist

DNAX Research Institute has a position immediately available for a Staff Scientist to provide expertise and assistance in protein purification, characterization, and sequencing to various research teams.

Candidates should possess a Ph.D. in chemistry or biochemistry and at least two years' postdoctoral experience in purification of proteins using HPLC and in microsequencing of proteins using the latest technology. Demonstrated ability to teach skills to others, to devise suitable protocols, and to function as an effective team member is essential.

DNAX Research Institute, located next to Stanford University, is committed to basic research and provides a unique opportunity for productive collaborative efforts between immunologists and molecular biologists in an academic type of environment.

Interested applicants should send a curriculum vitae and the names of three references to the Human Resources Department, DNAX Research Institute of Molecular and Cellular Biology, 901 California Avenue, Palo Alto, CA 94304-1104. EOE.

POSITIONS OPEN

RESEARCH ASSOCIATE position available for an individual interested in studying the role of free radicals in cellular injury. Background in cell biology and/or drug metabolism desired. Send curriculum vitae to: **Dr. Gerald M. Rosen, Department of Pharmacology, Duke University Medical Center, Box 3813, Durham, NC 27710. Duke University is an Affirmative Action/Equal Opportunity Employer.**

RESEARCH SCIENTIST, PH.D. ROGER WILLIAMS GENERAL HOSPITAL seeks a Ph.D. researcher in pharmacology or biochemistry with research experience in the evaluation of adrenergic function including membrane receptors. The candidate must qualify for a position on the medical faculty of Brown University as assistant professor of medicine (research) in the Department of Medicine. *Roger Williams General Hospital is an Equal Employment Opportunity/Affirmative Action Employer.* Please send curriculum vitae to: **Alan Shurman, M.D., Chairman, Search Committee, Roger Williams General Hospital, 825 Chalkstone Avenue, Providence, RI 02908, by 30 September.**

PH.D. ROGER WILLIAMS GENERAL HOSPITAL seeks a **RESEARCHER IN MOLECULAR OR CELLULAR BIOLOGY** with experience in tumor metastasis. The candidate must qualify for a position on the medical faculty of Brown University as assistant professor of medicine (research) and have skills in tumor biology, the isolation and establishment of metastatic cell lines, and the mechanisms of tumor metastasis. 100 percent of successful candidates time will be devoted to research. *Roger Williams General Hospital is an Equal Opportunity/Affirmative Action Employer.* Please send curriculum vitae by 30 September 1986 to: **Paul Calabresi, M.D., Chairman, Search Committee, Roger Williams General Hospital, 825 Chalkstone Avenue, Providence, RI 02908.**

VETERINARIAN. Licensed veterinarian with research interest and background in infectious diseases. Veterinary duties include the clinical care of a large chimpanzee colony under the direction of **Jorg Eichberg, D.V.M., Ph.D.** The major research areas include viral hepatitis and AIDS, therefore, candidates should have experience in virology and/or immunology. Please mail curriculum vitae and names of three references to: **Personnel Manager, Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284.**

An Equal Opportunity Employer, M/F.

COLLEGE OF THE VIRGIN ISLANDS

VISITING ASSISTANT OR VISITING ASSOCIATE PROFESSOR OF MARINE BIOLOGY (nontenure-track, renewable) beginning 15 January 1987. A doctorate and experience in teaching vertebrate and evolution or population biology required. Field experience in the tropics and research interests which can be pursued in the Virgin Islands desirable. Will teach 12 credit hours per semester in vertebrate biology, evolution, population biology, or general biology for majors and non-majors. Compensation from \$27,114 to \$39,514 plus liberal benefits. Address letter of application, current résumé, official college transcripts and three letters of recommendation by 1 October 1986 (late applications accepted until filled) to: **Dr. William P. MacLean, Vice President for Academic Affairs, College of the Virgin Islands, Charlotte Amalie, St. Thomas, U.S. Virgin Islands 00802.**

Equal Opportunity/Affirmative Action Employer

PROCEEDINGS

PROCEEDINGS of "The First International Symposium on the Role of Recombinant DNA in Genetics"—Chania, Crete, Greece, 13 to 16 May 1985. Including many exciting topics such as, "The Use of Synthetic DNA Hybridization Probes as Tools for Genetic Analysis," **R. B. Wallace, (United States)**, "Recombinant DNA Techniques Applied to Retrovirus Infection," **R. Cardiff (United States)**, and "Cloning Human Genes of the Biosynthetic Pathway Enzymes," **M. Goossens (France)**. Send \$15 per copy by check or money order to: **Raymond Teplitz, M.D., Department of Medical Pathology, University of California, Davis, CA 95616.**

AWARDS

THE HEISER PROGRAM FOR RESEARCH IN LEPROSY

Beginning **postdoctoral research fellowships, research grants, and visiting research awards** available in amounts up to \$19,000 per year, plus other allowances. Applicants should have M.D., Ph.D., or equivalent degree. Applications by 1 February 1987, for awards to be activated June to December 1987. For information, write: **The Heiser Program, 450 East 63 Street, New York, NY 10021.**

GRADUATE PROGRAM

GRADUATE PROGRAM IN PHARMACOLOGY—The Department of Pharmacology at Texas Tech University Health Sciences Center offers a graduate program of research and course work leading to the Ph.D. degree. Areas of research center on biochemical pharmacology, neurochemistry, neuropsychopharmacology, cardiovascular pharmacology, and endocrine pharmacology. A limited number of stipends are available for outstanding applicants. Write for brochure and application material. Apply to: **Dr. J. Barry Lombardini, Department of Pharmacology, Texas Tech University Health Sciences Center, Lubbock, TX 79430.**

PROGRAMS

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with a doctorate-level degree in science, the opportunity to earn the doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Dr. D. M. Chauncey, Ph.D.-O.D. Program Director, The New England College of Optometry, 424 Beacon Street, Boston, MA 02115; telephone: 617-266-2030 extension 147.**

DOCTORAL PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY AND PATHOBIOLOGY (MCBP)

Interdisciplinary program leading to Ph.D. degree seeks qualified candidates interested in fundamental molecular and cellular biology and its application to disease. Assistantships of \$9000 are available on a competitive basis. Contact: **Director, MCBP Program, College of Graduate Studies, Medical University of South Carolina, Charleston, SC 29425.**

GRADUATE STUDIES

COLLEGE OF GRADUATE STUDIES, Medical University of South Carolina, offers programs leading to Ph.D. and M.D./Ph.D. degrees in anatomy, biochemistry, biometry, basic and clinical immunology and microbiology, molecular and cellular biology and pathobiology, pathology, pharmaceutical sciences, pharmacology, and physiology. Salary: \$9000 assistantships available to highly qualified students. Contact: **Dean, College of Graduate Studies, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

FELLOWSHIPS

IMPERIAL CANCER RESEARCH FUND RESEARCH FELLOWSHIP

A **postdoctoral fellowship** is available to work on gene expression in mammalian cells. The molecular mechanisms and DNA sequences involved in the control of gene expression will be investigated. Candidates should have experience in molecular biology and recombinant DNA technology.

The award will be tenable for 3 years on the salary range £10,642 to £13,018. Entry depending upon qualifications and experience (1986 revision pending).

For further details, contact: **Dr. Mike Fried on 01 242 0200 Extension 2297.** Please send full curriculum vitae and names of three references to: **The Personnel Officer, Imperial Cancer Research Fund, Lincoln's Inn Fields, London, England WC2A 3PX** quoting reference: 129/86.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Available from NIH training grant for study of neural basis of motor behavior (**James Larimer**), sensory physiology (**George Pollak, Harold Zakon**), synaptic plasticity and developmental neurobiology (**George Bittner, Wesley Thompson, and Harold Zakon**). Stipend depends on experience. Applicants must be American citizens or permanent residents. Openings are from summer/fall 1987. Deadline for consideration is late spring 1987. For more information, write one or more of the above faculty at: **Department of Zoology, University of Texas, Austin, TX 78712.**

POSTDOCTORAL FELLOWSHIP IN CLINICAL LABORATORY IMMUNOLOGY. Applications are invited for a 2-year fellowship in clinical laboratory immunology at North Carolina Memorial Hospital (NCMH) and the University of North Carolina (UNC). Fellowship provides residency-type training in laboratory immunology through laboratory experience, conferences, and research. Send curriculum vitae and three letters of reference before 10 October 1986 to: **Dr. James D. Folds, Clinical Microbiology-Immunology Laboratories, 1035 SST, North Carolina Memorial Hospital, Chapel Hill, NC 27514. The UNC/NCMH is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP-ARBS CEN Cadache, France/University of Georgia

Applications are invited for a postdoctoral fellowship jointly sponsored by the Department of Biochemistry, University of Georgia, and ARBS, CEN, Cadache, France (1 year in France/1 year in the United States).

The successful applicant will be expected to participate in a multidisciplinary research program dealing with the physiology, biochemistry, and molecular biology of hydrogenases from the sulfate reducing bacteria and their relevance for the anaerobic corrosion of metals. The stipend is competitive and plane transportation to France will be reimbursed. Interested applicants should send a complete curriculum vitae, the names of three references, and a brief statement of research interests before 1 October 1986 to:

**Professor Jean LeGall
Department of Biochemistry, G.S.R.C.
University of Georgia
Athens, GA 30602**

The University of Georgia is an Affirmative Action/Equal Opportunity Institution

HARVARD UNIVERSITY SCHOOL OF PUBLIC HEALTH TAKEMI FELLOWSHIPS IN INTERNATIONAL HEALTH

The **Takemi Program in International Health** invites applications from promising graduates of advanced degree programs and mid-career professionals with relevant backgrounds, for fellowships in research and advanced training on critical problems in international health, especially those concerned with less developed countries.

Fellows will be appointed for a 10-month period beginning in September 1987. Deadline for application is 15 January 1987. Decisions will be announced in April 1987.

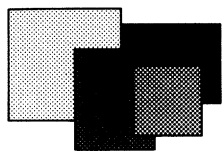
For information, write to:

**Professor Lincoln C. Chen Director
Takemi Program in International Health
Harvard School of Public Health
665 Huntington Avenue
Boston, MA 02115**

ASSISTANTSHIPS

ASSISTANTSHIPS

MEDICAL SCIENTIST TRAINING PROGRAM offers assistantships for a select number of individuals for an integrated program in basic and clinical medical science leading to a combined M.D./Ph.D. degree in 6 to 7 years. Contact: **Director, Medical Scientist Training Program, College of Graduate Studies, Medical University of South Carolina, Charleston, SC 29425.**



**More
Than A
Step Ahead**

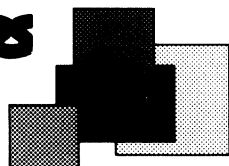
Research Scientist Immunology Laboratory

A move to Collagen Corporation is more than a step forward in your career. It's a step into the future of biotechnology. Join us in this challenging opportunity.

Collaborating with other scientists, you will be part of a research team investigating bone development and bone repair. Your role will be to provide immunological expertise to this program. You should have a PhD and 2-3 years of post-doctoral experience in cellular immunology and experience with immunochemical techniques.

Collagen Corporation offers excellent growth potential and attractive salaries and benefits. To apply, please send your C.V., bibliography, and the names of several references to Dr. Larry Ellingsworth, Manager Immunology, Connective Tissue Research Laboratories, Box 111, 2500 Faber Place, Palo Alto, CA 94303. We are an equal opportunity employer.

**Collagen
Corporation**



Research Scientists

**A Responsive Research
Environment**

Pioneer new discoveries in Immunological therapies.

You'll find the research environment at Schering-Plough supportive, progressive and responsive to your ideas. Our technology is totally state-of-the-art. And our commitment to R&D fosters a growing sense of freedom and accomplishments. Join a community of bold thinkers working together on some of today's most critical challenges to immunological therapeutics.

Biochemists

SENIOR SCIENTISTS—will have a Ph.D. in Biochemistry, and 1-3 years of postdoctoral experience is preferred. Qualified applicants will have experience in the purification and physicochemical characterization of proteins. Familiarity with techniques for protein structural analysis, including fluorescence, circular dichroism spectroscopy, and amino acid sequencing is desired. The successful candidates will function as members of a multidisciplinary drug discovery team and possess clear communication skills and the ability to interact personally.

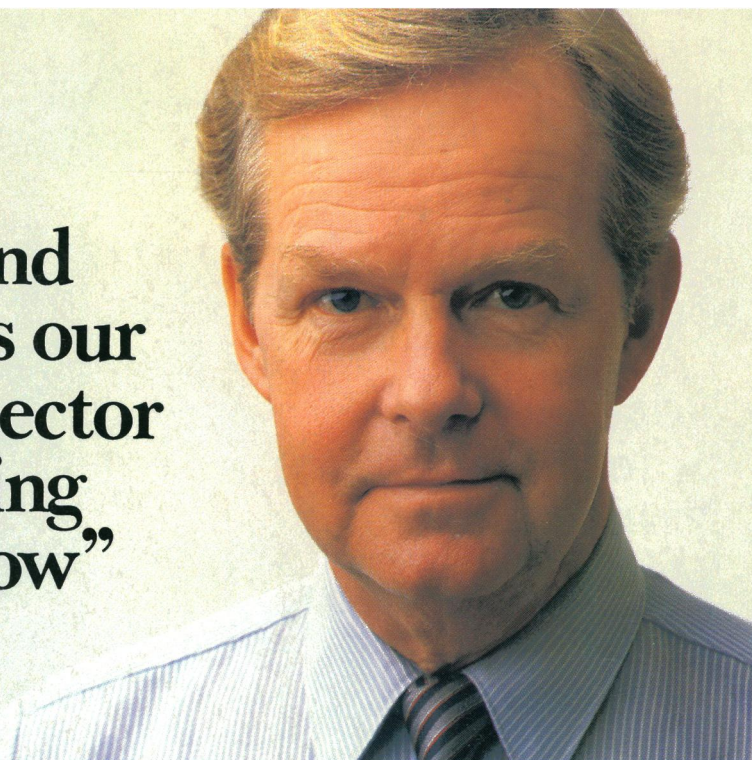
SCIENTISTS—will have an MS in Biochemistry, 0-1 year's experience or BS and 1-3 years' experience. The primary responsibility will be the purification and physicochemical characterization of proteins under the supervision of a senior staff scientist. Successful applicants will be familiar with modern methodologies such as isoelectric focusing and column chromatography.

We offer competitive salary and benefits. For immediate consideration, please forward resume including salary history to: Mr. W. A. Schall, Personnel Manager, Schering-Plough Corporation, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.



Schering-Plough

**"Give me 20 μ l
of your sample and
in just 20 minutes our
Diode Array Detector
tells you everything
you'll want to know"**



Talk to anyone who's using diode array detection from LKB, and you'll find he's getting a lot more work done in a lot less time. After all, variable wavelength detection needs a lot of runs to get the kind of information you can trust. And when you're scanning under stopped flow conditions, you can't quantitate peaks and fast LC is almost impossible.

The Diode Array Detector that just can't miss peaks

That's LKB's Rapid Spectral Detector. Getting you all the spectral data you need at one and the same time—chromatograms and spectra in just one run. With parameters set after the run, not before. And when you can automatically access spectra on the upslope, apex and downslope of even the fastest peak, you just can't miss it. However small or wherever it's hidden, the Rapid Spectral Detector finds every single peak, checks it for purity and gives you positive identification.

The Diode Array Detector that gives you greater value

You probably never thought you could get so much value from a diode array that's so small. Use it with your own LC and any standard output device, and you've set up the most economic diode array detection system you'll find in any lab.

When you need more analytical power, just connect a personal computer. You'll be able to manipulate original data without reruns. Get more information, greater

detail and increased certainty. Want spectral overlay, normalized spectra or peak integration? Our software gives it to you. Plus color coded isograms that'll show you peaks where you never thought of looking, even when they're disguised by noise.



As a stand-alone unit, the Rapid Spectral Detector offers four channels for wavelength bunching and ratios, time integrated spectra and spectral suppression. Alternatively, fully computerized analysis is obtainable by adding a PC.

The Diode Array Detector that creates your own private library

Store and retrieve spectra at the touch of a button. Get spectral search routines for automatic identification. Create thousands of entries. Add, replace and edit. Display, plot and print all data. Just call for a demonstration, attend one of our seminars or visit any one of our many customers. Get in touch with LKB. We'll give you all the facts.



LKB-Produkter AB, Box 305, S-161 26 Bromma, Sweden. Tel. +46(8)98 00 40, telex 10492
 Antwerp (03) 218 93 35 · Athens-Middle East +30 (1) 894 73 96 · Copenhagen (01) 29 50 44 · Hongkong (852) 5-555555
 London (01) 657 88 22 · Lucerne (041) 57 44 57 · Madras (044) 45 28 74 · Moscow (095) 255-6984 · Munich (089) 85 830
 Paris (01) 64.46.36.36 · Rome (06) 39 90 33 · Stockholm (08) 98 00 40 · Tokyo (03) 293-5141 · Turku (021) 678 111
 Vienna +43 (222) 92 16 07 · Washington (301) 963 3200 · Zoetermeer (079) 31 92 01
 Over 60 qualified representatives throughout the world.