ers to locate these varied points of view within the broader historical tableau.

How does the history of psychology look within such an expanded framework? For one thing the common view of American psychology as more or less an extension of the German experimental tradition is rejected. The volume vividly demonstrates the influence of evolutionary theory, British associationism, French philosophy and psychiatry, and Russian physiology, along with a pragmatism and functionalism indigenous to North America. Other misconceptions associated with a monolithic story of origins are also corrected. For instance, Arthur Blumenthal's chapters on Wundt and on experimentalism illustrate the competing visions about what was to constitute proper research methodology. Similarly, several chapters debunk the myth of psychology's purported struggles to disentangle itself from biology on the one hand and philosophy on the other. The relations between psychology and these two neighboring disciplines were far more complicated. Among the cogent accounts the volume presents of other issues that are either omitted from or misrepresented in most texts are Steele's deconstruction of the history of psychoanalysis and his illuminating discussion of new advances, which includes a roster of theorists with whose work psychologists should be but generally are not acquainted; Mitchell Ash's erudite depiction of Gestalt psychology and its turbulent move from the Continent to the United States; Buxton's sensitive interpretation of the varieties of functionalism; and Frank Kessel and William Bevan's précis on the recent emergence of cognitive psychology.

Laudable as this endeavor to revise the historical portrait of psychology is, it still falls short of providing a genuine pluralistic and contextual perspective. Most (though certainly not all) of the chapters tacitly subscribe to a view of psychology as a natural science relying on experimental evidence as the primary criterion of truth and embracing a clear-cut subject. The special problems inherent in a science that uses experiencing humans as both the observers and the objects of observation are skirted, as are the persistent problems of experimental bias and the quantification of experience. The presentation of psychology as a natural science leaves no place for contemplating how it might (also) be a social or interpretative science (with the notable exception of Steele's chapters on psychoanalysis). Perhaps because of these static precepts, the fields of personality, developmental, and social psychology are not represented. Another consequence may be a restricting of what counts as "external" or "contextual"

analysis, such that the volume attends to the influences of biology and philosophy but does not rethink psychology's relations to sociology, anthropology, linguistics, and engineering sciences. More important is the failure to discuss how psychology was shaped by forces in addition to intellectual ones, despite the fact that historical research is beginning to decipher how economics, politics, and culture shape the sciences. This contextualist scholarship unfortunately has been left unmined by most of the contributors to the volume.

These problems may turn out to be nothing more than temporary wrinkles if future textbooks in the history of psychology heed the innovations attempted here. The refinement of contextual analysis will depend on advances in historical research, but its acceptance will depend on the extent to which psychologists are truly willing to give their students a pluralist perspective.

> JILL G. MORAWSKI Department of Psychology, Wesleyan University, Middletown, CT 06547

Wave Propagation

The Propagation of Radio Waves. The Theory of Radio Waves of Low Power in the Ionosphere and Magnetosphere. K. G. BUDDEN. Cambridge University Press, New York, 1985. xvi, 669 pp., illus. \$89.50. Revised edition of *Radio Waves in the Ionosphere* (1961).

The propagation of radio waves through the ionized layers of the earth's atmosphere is of importance in radio communication, navigation, and surveillance, and a thorough knowledge of the characteristics of propagation is important to the efficient use of the spectrum. The presence of plasma and the earth's magnetic field and the occurrence of collisions between electrons and molecules render the ionospheric plasma birefringent, absorbing, and dispersive, so that radio waves are distorted as they travel.

These phenomena are considered in Budden's *The Propagation of Radio Waves*, which is more than an updating of his classical treatise *Radio Waves in the Ionosphere*. The book covers the topics covered in the earlier book as well as some additional ones. In particular, the new book includes discussions of magnetospheric phenomena, including topside soundings, and such aspects of plasma physics as Debye shielding, ioncyclotron waves, and plasma resonances. Such new techniques for probing the ionosphere as partial reflections, Faraday rotation, and wave interaction are discussed. On the other hand, the author wisely avoids discussion of the scattering of radio energy by irregularities, which enables him to concentrate on the magnetoionic aspects of wave propagation.

Among the topics that are new or that receive considerably expanded discussion are reciprocity, which is tackled from the points of view of both ray theory and full-wave theory; the kinetic treatment of collisions and the Sen-Wyller formulas for refractive indexes; the coupling of characteristic waves, including the important cases of limiting polarization at the base of the ionosphere, and radio windows; and general ray tracing of complex rays and pseudo rays in absorbing media. Another important feature of the book is the long list of references to textbooks and published papers, both current and historical.

There is a great emphasis in the book on the WKB solutions. These solutions are of considerable value to those interested in understanding wave characteristics, but not to the practical radio engineer, who can use full-wave (computer) solutions. Three chapters are devoted to full-wave theories and their applications to such topics as resonance and barriers, resonance tunneling, and inversion of reflection measurements. Fullwave treatments are given for linear, linear piecewise, exponential, parabolic, and Epstein electron density models. The book emphasizes an understanding of the basic physical principles on the premise that a user who understands the physics is well equipped to tackle specific problems. The reader is assumed to be familiar with calculus, the theory of complex variables, vectors (including differential vector operators), matrixes, and basic electromagnetic theory.

The use of the term "Appleton-Lassen" rather than "Appleton-Hartree" for the refractive index formula will be welcomed by the German ionospheric community.

Budden's new book is recommended as an essential part of the libraries of all workers involved in any aspect of ionospheric radio communication or radio soundings of the ionosphere.

> KENNETH DAVIES Space Environment Laboratory, National Oceanic and Atmospheric Administration, Boulder, CO 80303

Books Received

The Apocalyptics. How Environmental Politics Controls What We Know about Cancer. Edith Efron. Simon and Schuster, New York, 1985. 590 pp. Paper, \$10.95. A Touchstone Book. Reprint, 1984 edition. Applied Superconductivity, Metallurgy, and Physics of Titanium Alloys. Vol. 1, Fundamentals: Alloy Superconductors: Their Metallurgical, Physical, (Continued on page 1450)

Products & Materials

Research Microscope

The Diaplan is a biomedical research microscope. It features a high-stability stand for photomicrography, television microscopy, and critical high-magnification microscopy which accepts modular accessories for all illumination techniques. The ergonomically designed articulating armrests and lowposition coaxial focus controls offer user comfort. Integral aperture and field diaphragm controls are provided for fast and simple Kohler illumination down to 1.6objectives. The UKO condenser may be custom-fitted for the user's phase-contrast, dark-field or interference-contrast needs. The Diaplan provides wide-field capabilities of 20-, 25-, or 28-mm field of view index for efficient specimen scanning and increased image information. New PL Fluotar semiapochromats with flatness correction for up to 25-mm field of view index have superb contrast, transmission, and neutral color rendition. Modular one- and three-cube epifluorescence illuminators, according to Ploem, provide clear fluorescence images and fast filter interchange. There is also an interference-contrast system with economical and detachable objective wollaston prisms for maximum flexibility. E. Leitz. Circle 586.

Optical Accessory

The MonoZoom-7 Optical System joins a zoom magnifier with closed circuit television to provide a valuable instructional tool. The system links to any camera with a standard C-thread mount and requires no optical recalibration or alignment. Mono-Zoom-7 enables students to view specimens on a television monitor for group instruction. The system has a one-to-seven zoom ratio that stays in focus so magnification may be easily varied to conform to observational needs. Optional accessory lenses provide magnification from 5 to $800 \times$ on a 19inch monitor. Long working distances between 36 and 295 mm allow ample room for dissection and probing. Bausch & Lomb, Optical Systems Division. Circle 575.

Automated DNA Synthesizer

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tion automatically terminates synthesis to prevent the waste of reagents. With a base addition cycle of 9.7 minutes and an efficiency greater than 98%, the Gene Assembler can rapidly produce oligonucleotides greater than 140 bases in length. The β cyanoethyl phosphoramidite synthesis reaction takes place on highly porous Mono-Beads. The MonoBeads containing the 3' base are packed into a disposable cassette. The cassette is quickly slipped into a reusable reaction column. To construct a new oligomer, one only needs to purchase a matrix cassette instead of a complete column set-up. The Gene Assembler features twocolumn sequential synthesis for around-theclock operation. Four different oligonucleotides may be produced in a 24-hour period. Pharmacia, Molecular Biology Division. Circle 577.

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Information for Chemists

ChemBase is a new chemical information management system for the IBM PC computer family. ChemBase stores and retrieves structures, reactions, text, and data in standard or user-defined formats. Convenient structure-drawing and flexible searching facilities resemble those of the standard mainframe programs MACCS and REACCS. Additional programs ChemTalk and Chem-Host allow ChemBase to communicate with mainframe databases. A variety of prepared chemical and biochemical databases-on-disk are available. Molecular Design. Circle 587.

Literature

The Scientific Desk is a problem-solving environment for mathematics and statistics that is now available for use on the IBM PC RT. C. Abaci. Circle 578.

Ultrasonic Cell Disruption describes the Sonifier II with broadband tuning. Applications, design features, and accessories are described. Branson Sonic Power. Circle 590.

Microfiltration and Ultrafiltration Process includes membrane filter cartridges, cartridge housings, capsules, disk filters and filter holders, cross-flow filtration products, and filter integrity testing systems. Sartorius Filters. Circle 592.

Cell Production is devoted to the Sci/ERA roller apparatus for cell culture. This is a line of modular equipment with protection against power failure. Bellco Biotechnology. Circle 589.

Tumor Markers in Diagnosis of Malignant Disease is a bibliography devoted to 11 major circulating tumor markers. It includes more that 200 recent references organized by primary tumor site. DIANON Systems. Circle 591.

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.

(Continued from page 1448)

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von Keyserlingk, A. Jäger, and Ch. von Szczepanski, Eds. Springer-Verlag, New York, 1985. Proceedings in Life Sciences. xiv, 159 pp., illus. \$29. From a symposium, Berlin, Aug. 1984. Autobiographies in Experimental Psychology.

Ronald Gandelman, Ed. Erlbaum, Hillsdale, NJ, 1985. viii, 119 pp., illus. \$19.95. From a symposium, New Brunswick, NJ, spring 1983. Memoirs by Frank A. Beach, Fred S. Keller, Howard H. Kendler, Karl H. Pribram, and Curt P. Richter.

Beyond Oil. The Threat to Food and Fuel in the Coming Decades. John Gever *et al.* Ballinger, Cambridge, MA, 1986. xxii, 304 pp., illus. \$34.95; paper, \$14.95.

Complexity, Language, and Life. Mathematical Approaches. John L. Casti and Anders Karlqvist, Eds. Springer-Verlag, New York, 1986. xiv, 283 pp., illus. \$49.50. Biomathematics, vol. 16. Computer Organization. Hardware/Software. G. W.

Gorsline. 2nd ed. Prentice Hall, Englewood Cliffs, NJ, 1986. xvi, 623 pp., illus. \$40.95. Conceptual Change in Childhood. Susan Carey.

MIT Press, Cambridge, MA, 1986. xiv, 226 pp., illus. \$15. A Bradford Book.

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York Academy of Sciences, vol. 458. From a symposium, New York, July 1984. **Exactly Solvable Problems in Condensed Matter and Relativistic Field Theory**. B. S. Shastry, S. S. Jha and V. Singh, Eds. Springer-Verlag, New York, 1985. vi, 318 pp., illus. Paper, \$20.50. Lecture Notes in Physics, vol. 242. From a colloquium, Bombay, Jan. 1985 1985

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Guide to Mammals of the Plains States. J. Knox Jones, Jr., David M. Armstrong, and Jerry R. Choate.
University of Nebraska Press, Lincoln, 1986. xx, 371 pp., illus. \$31.50; paper, \$15.95.
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A Local Spectral Theory for Closed Operators. Ivan Erdelyi and Wang Shengwang. Cambridge Univer-sity Press, New York, 1985. x, 178 pp. Paper, \$22.95. London Mathematical Society Lecture Note Series, 105.

The Logic of Deterrence. Anthony Kenny. University of Chicago Press, Chicago, 1986. x, 103 pp. \$20;

sity of Chicago Press, Chicago, 1986. x, 103 pp. \$20; paper, \$6.95. Nucleon-Nucleon and Nucleon-Antinucleon In-teractions. H. Mitter and W. Plessas, Eds. Springer-Verlag, New York, 1985. vi, 724 pp., illus. \$70.90. Acta Physica Austriaca, supplementum 27. From a confer-ence, Steiermark, Austria, Feb. 1985. Shawnee Minisink. A Stratified Paleoindian-Archaic Site in the Upper Delaware Valley of Pennsylvania. Charles W. McNett, Jr., Ed. Academic Press, Orlando, FL, 1985. xii, 329 pp., illus. \$60; paper, \$34.95. Studies in Archaeology. in Archaeology.

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SCIENCE, VOL. 232

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The University of Nebraska Medical Center has two positions for qualified anesthesiologists at the rank of assistant professor. The positions require completion of an approved residency in anesthesiology. The candidates must be well qualified and be interested in research and teaching. Salary commensurate with education and experience. Interested parties should send their curriculum vitae by 10 July 1986 to: Michael Nahrwold, M.D., Chairman of the Department of Anesthesiology, University of Nebraska Medical Center, 42nd and Dewey, Omaha, Nebraska 68105.

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CHIEF, DIVISION OF SURGICAL RESEARCH: North Shore University Hospital is seeking an M.D./Ph.D. or Ph.D. to head its Division of Surgical Research. Candidate should have several years of postgraduate experience in cellular pathophysiology and ischemia. Dedicated funds, research space, academic appointment, excellent salary, and benefits are included. Send résumé to: Dr. A. J. Tortolani, Co-Chief, Department of Surgery, North Shore University Hospital, 300 Community Drive, Manhasset, NY 11030. We are an Equal Opportunity Employer.

DEVELOPMENT ENGINEER (Ph.D.) PHARMACEUTICAL RESEARCH

Major pharmaceutical firm needs Ph.D. in chemical engineering or biochemistry. Conduct fermentation and biochemical studies on biological processes related to pharmacology. Evaluate feasibility studies on new and existing processes. Will work in pilot plant and laboratory environments. Salary to \$47,000, with fee/relocation expenses paid. Telephone: 616-531-4122 or send résumé to: BARMAN PERSONNEL: P.O. Box 121(S), Grandville, MI 49418. Delaware. Our growing children's hospital conveniently located in suburban Wilmington, Delaware, adjacent to I-95 has the following opportunities available:

ASSISTANT RESEARCH SCIENTIST

Ph.D. research position for an immunologist/immunochemist with training and interest in the specificity and clinical correlation of human autoantibodies. Skills should include supervision of measurement of clinically useful immunologic assays including serum cryoglobulins, immune complexes, serum complement components, various antinuclear antibodies, and rheumatoid factor assays.

POSTDOCTORAL RESEARCH ASSOCIATE

Ph.D. or M.D. research position available in biochemical regulation of gene expression in regenerating skeletal muscle. Candidate will participate in research program on regulation of gene expression for myoglobin and creatine kinase as related to aerobic metabolism.

Candidates for either position submit current curriculum vitae, summary of research experience, and three references to: Charles R. Hartzell, Ph.D., Director of Research, Alfred I. duPont Institute, P.O. Box 269, Wilmington, DE 19899; telephone: 302-651-6800. Equal Opportunity Employer.

BIOPHYSICIST STAFF BIOPHYSICIST

A staff experimental **physicist/biophysicist** position is available to participate in a Bevalac biomedical program investigating the biological effects of accelerated heavy charged particles and their application to radiotherapy and radiosurgery. Specific responsibilities include: specify, design, and maintain system to deliver accelerated heavy ion beams for biomedical experiments; act as liaison between the Bevalac Radiation Facility and biomedical experimenters; direct daily operation of facility; optimize exposure configurations; develop beam monitoring and dosimetric instrumentation; participate in collaborative and independent research in physics or biophysics.

Applicants must have Ph.D. in physics or biophysics and a minimum of 2 years of postdoctoral training in experimental work with particle radiation (nuclear or biological physics). Must have broad experience in nuclear instrumentation, dosimetry, and computer programing for data acquisition and analysis. Must be familiar with high energy heavy ion acceleration and beam delivery systems. Must have experience in radiation biology with charged particle biophysics. Must have demonstrated strong research capability and ability to handle multiple responsibilities and communicate effectively with peers. Salary range \$2252 to \$5405 per month. Filing deadline: 30 June 1986. Please send curriculum vitae and names and addresses of three references to: Dr. E. John Ainsworth, c/o Jaquie Schilling, Lawrence Berkeley Laboratory, Employment Office, M.S. 90-1012, Number 1 Cyclotron Road, Berkeley, CA 94720. Please specify job number B/3766. An Equal Opportunity Employer, M/F/H. LAWRENCE

BERKELEY LABORATORY

BORMORI

DIRECTOR

The Board of Control of The Connecticut Agricultural Experiment Station invites applications before 15 July 1986 for the directorship of the station to begin autumn 1987. Apply to: Board of Control, The Connecticut Agricultural Experiment Station, Box 1106, New Haven, Connecticut 06504. Affirmative Action/Equal Opportunity Employer.

TENURE-TRACK FACULTY POSITION—BIO-CHEMISTRY. An expanding department seeks a new faculty member with demonstrated research and teaching capability. Rank will be appropriate to qualifications. The successful candidate will be expected to establish an active, funded research program related to contemporary biochemistry or molecular biology. Send curriculum vitae, summary of research, and names of three references to: Dr. Michael P. Czech, Biochemistry Search, Department of Biochemistry, University of Massachusetts Medical Center, Worcester, MA 01605.

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

ASSOCIATE CHIEF OF STAFF/EDUCATION: Vacancy exists at the Olin E. Teague Veterans' Center, Temple, Texas. Candidates must be Board-certified and have experience and demonstrated competence in administration, teaching, and related scholarly activity. Affiliated with Texas A&M University (TAMU) School of Medicine. Faculty appointment available commensurate with education and experience. Temple is located in sunny central Texas and has many cultural and recreational advantages. Ready access to major metropolitan areas. Submit curriculum vitae to: ACOS/Ambulatory Care, Olin E. Teague Veterans' Center, Temple, TX 76501; telephone 817-778-4811, extension 4304.

CHAIR/HEAD DEPARTMENT OF PATHOLO-GY. The position of chair/head of the Department of Pathology is available at the University of Illinois College of Medicine at Peoria. Candidates should meet the requirements for appointment as associate or full professor. **Responsibilities**: organize/administer the teaching of second, third, and fourth year medical students and other medical/paramedical personnel; provide leadership and direction to the faculty of the Department of Pathology in the areas of teaching, biomedical research, curricular development and service; represent the Department of Pathology to the Office of the Director; conduct biomedical research and foster the development of collaborative research programs; recruit faculty; develop and administer the departmental budget. **Requirements**: M.D. and/or Ph.D. in pathology; certification in one of the boards of pathology (for physicians); publication record in research (preference will be given to individuals with accomplishments in neuropathology, immunopathology, or renal pathology); record of or high potential for obtaining extramural funding for research or service; record of excellence in teaching medical students; demonstrated accomplishments in administration; eligibility for Illinois medical licensure (for physicians). Position available 1 September 1986. Salary and rank commensurate with experience, qualifications, and responsibility. *The University of Illinois is an Afirmative Action/Equal Opportunity Employer.* Send curriculum vitae and names of three references to: Phillip C. Jobe, Ph.D., Chair, **Pathology Search Committee, University of Illinois College of Medicine at Peoria, P.O. Box 1649**, Peo**ria, IL 61656**. Preference will be given to applications received prior to 1 August 1986.

CHAIRPERSON, DEPARTMENT OF HUMAN ANATOMY. The School of Medicine, University of California, Davis, invites applications and nominations for the position of chairperson of the Department of Human Anatomy. The department has 11 tenure-track faculty members, is responsible for the teaching of gross, neuro-, and microscopic anatomy and aspects of cell biology in the medical curriculum, and offers graduate training in anatomy, cell biology, and related disciplines. Candidates must have a distinguished record of scholarship and professional achievement as evidenced by publications and grant awards, an interest in teaching, and demonstrated leadership and administrative abilities. The position requires a strong commitment to the development and administration of departmental research and academic programs, as well as to maintaining an independent, extramurally funded research program. Applicants should submit a letter of application, curriculum vitae, a summary of research goals, and the names of five references to: Dr. John W. B. Hershey, Search Committee Chairperson, Department of Biological Chemistry, School of Medicine, University of California, Davis, CA 95616. Applications must be received before 1 October 1986.

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

The Department of Pathology at The University of Michigan Medical School seeks applicants with CLINI-CAL TRAINING PATHOLOGY and special expertise in molecular genetics/biology to fill two available positions. These individuals will be expected to be competitive in the acquiring of research grant or contract support, have duties chiefly related to research and teaching, and will work collaboratively with the Howard Hughes Medical Research Institute.

Qualified candidates should contact: Peter A. Ward, M.D., Professor and Chairman, Department of Pathology–M045, M5240 Medical Science I, The University of Michigan Medical School, 1315 Catherine Road, Ann Arbor, MI 48109–0602.

MOLECULAR BIOLOGIST/ GENETICIST

Molecular Biologist or Geneticist, BS or MS, with 2 years additional experience in recombinant DNA methodology. We seek candidates who are experienced in the following areas: cDNA cloning, genomic cloning and the use of mammalian gene expression systems. Special consideration will be given to candidates with additional experience in the isolation of DNA-binding proteins, in vitro transcription, or chromatin structure determination.

The successful candidate will work within a multidisciplinary group with interest in lipid metabolism, transcriptional control mechanisms and the control of cellular proliferation.

We offer excellent compensation, comprehensive benefits and relocation assistance. Please send resume and salary history to:

Personnel Services Manager

Merrell Dow

MERRELL DOW RESEARCH INSTITUTE 2110 East Galbraith Road Cincinnati, Ohio 45215 Equal Opportunity Employer M/F/H/V

Research Scientists

Recombinant Methods/ Gene Expression

This position will be responsible for development of an important new diagnostic method for detecting specific nucleic acid sequences.

Molecular biologist with extensive experience with recombinant methods and gene expression systems. Ph.D. with minimum of 2-3 years post doctoral training.

In Vitro Translation

This position will be responsible for developing new products for in vitro expression of DNA and mRNA to protein. Will also evaluate and improve present in vitro translation product line and develop detailed production protocols.

Ph.D. with minimum of 2-3 years post doctoral training. Must have experience using eukaryotic systems. Experience with coupled prokaryotic transcription/translation systems desirable.

Please send your resume, in confidence, to:

Mr. Wayne E. Fowler

GIBCO/BRL Division

Life Technologies, Inc. 8717 Grovemont Circle Gaithersburg, MD 20877

An equal opportunity employer, M/F/H.

BIOCHEMISTS PHARMACEUTICAL RESEARCH

Warner-Lambert/Parke-Davis Pharmaceutical Research Division, a world leader in drug discovery and development, has immediate openings in two programs in its Pharmacology Department.

Respiratory/Allergy

The primary responsibilities for this position include participation in studies examining the effects and mechanism of actions of novel pharmacological agents on the immune response of antigen sensitized animals using an "in vitro" computerized isolated tissue apparatus and other "in vivo" animal models. The successful candidate will have a B.S. or M.S. degree with at least 2 years of relevant research experience. Surgical skills and experience working with small animals is highly desired. Candidate should have experience working with micro-/mini-/mainframe computers.

Biochemistry/Cell Biologist

The responsibilities for this position include the design and execution of experimental protocols to examine stimulus-response coupling in human leukocytes. The successful candidate will have a B.S. or M.S. degree in biochemistry, cell biology or equivalent and demonstrated relevant research experience. Experience with enzyme assays, tissue culture, and analytical/preparative biochemical techniques is required.

Neurochemist

This position will be responsible for the testing of compounds to determine mechanism of action and effects on the central nervous system; the goal being the discovery of novel drugs for the treatment of mental disorders. The successful candidate will have a B.S. or M.S. degree with one to four years experience, demonstrated competence in HPLC; familiarity with catechlomine and acetycholine metabolism, and work with small laboratory animals; knowledge of statistical analysis and computerized data reduction is also desirable.

The Warner-Lambert/Parke-Davis Research Division is located in Ann Arbor, Michigan, adjacent to the University of Michigan campus. Our dynamic scientific staff enjoy excellent compensation, benefits, a modern work setting and an exceptional living environment.

Qualified applicants should indicate position applying for; send resume, salary requirements, and reference list in confidence to:

> Ms. M. Wolin Warner-Lambert/Parke-Davis 2800 Plymouth Road Ann Arbor, MI 48105



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SIBIA is an established biotechnology company involved in a wide spectrum of innovative research programs. SIBIA, with a staff comprised of leading scientific staff members, provides an exceptional scientific research environment in which to work plus a modern laboratory located near the ocean on Coast Boulevard in La Jolla. The broad range of research programs encourages multi-disciplinary interaction.

Applications are requested for the following positions:

RESEARCH ASSOCIATES

Molecular Cell Biology

BS/MS in Molecular and Cellular Biology, Microbiology or Biochemistry. Experience with recombinant DNA techniques such as cloning, nucleic acid sequencing and nucleic acid hybridization analysis is required. Research experience in molecular cell biology of plant, viral, yeast, and/or mammalian systems is desirable.

Cell Biology and Physiology/Pharmacology

BS/MS in Physiology/Pharmacology. One position requires research experience with in vitro and in vivo peptide and protein hormone assays. A second position requires research experience with in vitro and in vivo cardiovascular experimental techniques.

Tissue Culture and Cell Biology

BS/MS in Cell Biology. Experience with cell and tissue culture techniques involving primary and established cell lines and virology is required. Research experience in mammalian cell expression/production systems is desirable.

We offer a comprehensive benefits package and competitive salaries. For confidential consideration, please submit your curriculum vitae, a statement of research interests and goals, and the names of three professional references to:



THE SALK INSTITUTE BIOTECHNOLOGY/INDUSTRIAL ASSOCIATES, INC.

Department 4049, 505 Coast Boulevard South La Jolla, CA 92037

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Hoffmann-La Roche, the research-intensive pharmaceutical company in Nutley, NJ, has a career opportunity for a PhD in its Anti-infective area.

This individual will set up a program involving inhibition of protein biosynthesis of bacteria by specific inhibition of elongation factor EF-Tu. Other projects in the area of protein biosynthesis will also be considered.

Qualifications: PhD in Biochemistry, or Microbiology with a strong biochemical background. Experience in protein biosynthesis is a plus. Knowledge of bacteriology, especially in mechanisms of antibiotic action/resistance, desirable.

Roche offers a professional environment and an attractive compensation package. Please send resume, list of publications, and the names of three references to position NG, c/o Mrs. Eleanor Malone, Professional Staffing Specialist.



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Northeastern University offers partand full-time programs leading to the master's and doctoral degrees. Research opportunities are available in all disciplines. University resources include the Center for Electron Microscopy, the Barnett Institute of Chemical Analysis and Materials Science, and the Marine Science and Maritime Studies Center.

Fellowships, teaching assistantships, and other forms of financial support are available for qualified candidates.

For further information, contact: Northeastern University Professor Gwilym S. Jones 414 Mugar Hall 360 Huntington Avenue Boston, Massachusetts 02115 Telephone: 617-437-2851

Please indicate your area of interest.



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N.U.P. 3.5.6a

PROTEIN CRYSTALLOGRAPHERS

GENEX CORPORATION is seeking two Ph.D. Protein Crystallographers for its Protein Engineering Department. Candidates with expertise in crystallographic programming and protein structure refinement or protein crystallization are especially encouraged to apply. These positions offer an exceptional opportunity to participate in one of the most exciting new areas in biotechnology by applying three-dimensional structural data to the rational alteration of enzyme active sites and protein stability properties. Candidates will work closely with other protein crystallographers, protein chemists, and molecular biologists on the design and characterization of engineered proteins.

Genex offers one of the best equipped crystallographic laboratories in the country. Included are a Xentronics area detector mounted on a rotating anode, a 4-circle diffractometer, three color graphics work stations, and a Vax 11/780 with 8 megabytes of memory and 2 gigabytes of disk storage, all of which are devoted exclusively to protein crystallography.

A minimum of 2 years post-doctoral experience is preferred, although exceptional candidates with less experience will be considered. The level and salary of the positions will be determined based on background and experience.

GENEX offers a stimulating R&D environment; competitive salary and fringe benefits; excellent research facilities in addition to the crystallographic facilities; and a strong commitment to the publication of scientific results. A curriculum vitae together with a brief description of your scientific background and the names of three professional references should be submitted to:



Dept. PE 16020 Industrial Drive Gaithersburg, MD 20877 An equal opportunity employer

PROCESS DEVELOPMENT ENGINEER MAMMALIAN CELL CULTURE

An industry leader in advanced biotechnology, **Amgen** develops products for significant applications including human therapeutics, human diagnostic, animal health care and specialty chemicals. Several of our product development programs have progressed to a stage requiring larger scale process development efforts. We currently have an immediate opportunity for an **Associate Process Development Engineer** in our Process Development Department.

Candidates should have a B.S. or M.S. degree in Biochemical Engineering or related field and several years of relevant experience in the pharmaceutical or biotechnology industry. Experience in fermentation and cell culture techniques is essential, preferably with knowledge of CGMP's.

Reponsibilities include support in process scale-up programs and development of documentation leading to a GMP production process utilizing mammalian cells.

Amgen is located in an attractive community about an hour northwest of Los Angeles, and offers a stimulating and challenging scientific environment, as well as an attractive compensation and benefits program.

Qualified candidates should direct a resume including three references to: Recruitment, Dept. 37, AMGEN, 1900 Oak Terrance Lane, Thousand Oaks, CA 91320.

An Equal Opportunity Employer

THE NATIONAL WEATHER SERVICE, NA-TIONAL OCEANIC AND ATMOSPHERIC AD-MINISTRATION, DEPARTMENT OF COM-MERCE, is seeking applicants for the following Senior Executive Service (SES) position: CHIEF, AD-VANCED WEATHER INTERACTIVE PRO-CESSING SYSTEM FOR THE 1990'S PROGRAM **OFFICE**. Position is designated career reserved in the SES. Salary is negotiable from \$61,296 based upon experience, scientific achievement and professional/technical qualifications. Applicants will be evaluated on the basis of demonstrated ability to direct the development, acquisition, deployment, and integration activities in the management of this program; for example, defining and developing a follow-on to the Automation of Field Operations and Services (AFOS) system to improve efficiencies of present field service; improve local and mesoscale services with emphasis on severe weather and flash flood forecasts and warnings. Applicants must demonstrate in-depth knowledge/expertise in physical science related to the provision of weather service; professional knowledge and practical experience in theories, principles and practices of modern systems develop-ment, engineering, and applied research. Applicants must demonstrate a sensitivity to minority groups and women with respect to equal employment opportunity and affirmative action. Executive competence in broad areas of administration such as program planning, evaluation, and policy development; organizational representation and liaison; resource acquisition and administration; and human resource acquisition and administration; and human resource utilization. To Apply: Interested persons should contact: Louise Parrish; telephone 301-443-6667 for application forms. Reference Vacancy number NS86-08LP. Applications must be received prior to the closing date of 11 July 1986. An Equal Opportunity Employer.

DIRECTOR OF CLINICAL MEDICINE (SENIOR INVESTIGATOR)

Immediate need for a research based physician with extensive malaria patient experience. Will be responsible for all aspects of the clinical/field trials of malaria vaccines, including but not limited to protocol develop-ment, monitoring, and related clinical backstopping. Should have experience in the conduct of clinical investigations in a developing country setting and will require an in-depth knowledge of FDA regulations regarding the an in-depin knowledge of FDA regarations regarating the phased clinical testing of new drugs and vaccines. Will be the primary liaison for U.S. Agency for International Development with various organizations concerned with malaria vaccine clinical/field trials, including WHO, PAHO, FDA, and others. Field experience with human malaria is required. Submit complete required at threa malaria is required. Submit complete résumé and three references to: The American Institute of Biological Sciences, 1800 North Kent Street, number 930, Ar-lington, Virginia 22209.

EXECUTIVE OFFICER FOR THE AMERICAN SOCIETY FOR CLINICAL NUTRITION (ASCN). The Clinical Division of the American Institute on Nutrition-(a member society of FASEB). The society seeks an individual with a strong background in human nutrition, M.D. or Ph.D. degree, and proven administra-tive ability to head the national office and secretariat of the society in Bethesda, Maryland. Position available immediately. Salary is competitive and benefits are those of FASEB. An Equal Opportunity Employer. Applications received until 1 September 1986. Please send letter of interest with detailed curriculum vitae to: Edward S. Horton, M.D., Chairman, ASCN Search Committee, Denot M. M. division 2020 Communities, Second Science Participant Denot Market Science Science Participant Science Science Science Science Participant Science Science Science Science Science Participant Science Sci Department of Medicine, C-352 Given Building, University of Vermont College of Medicine, Burlington, VT 05405.

FORENSIC RESEARCH SCIENTIST

To study relationship between mental illness and crime. Requirements: Ph.D. in sociology, psychology, or a related area. Background in criminology and epidemiol-ogy important. Locations: Kirby Forensic Hospital, Wards Island, New York City. Academic appointments at New York University available for eligible candidates. Salary dependent on qualifications. Apply to: Dr. Mi-chael Kohn, NATHAN S. KLINE INSTITUTE FOR PSYCHIATRIC RESEARCH, Orangeburg, NY 10962.

A New York State office of mental health facility. An Equal Opportunity Employer, M/F.

POSITIONS OPEN

UNIVERSITY OF MASSACHUSETTS DIRECTOR OF BIOTECHNOLOGY PROGRAM

The University of Massachusetts at Amherst invites applications for a DIRECTOR of its new BIOTECH-NOLOGY PROGRAM. The director is expected to coordinate the activities of faculty members working in the university biotechnology program, represent the interests of the biotechnology faculty to the university administration, develop new funding sources, and pro-mote cooperation among biotechnology faculty and with private industry. The director will be expected to conduct his/her own research. The position is open now. Appli-cants should have a distinguished record of research accomplishment and a position of leadership in an area of molecular or cellular biology and/or biotechnology. Ap-pointment will be made at the senior faculty level. Salary will be commensurate with qualifications and experience. The choice of departmental affiliation is open. Applica-tions or nominations including the candidate's curriculum vitae, a current list of publications, and the names of at least three referees should be sent to: Dr. George Agrios, Search Chairman, Fernald Hall, University of Massachusetts, Amherst, MA, 01003. Telephone 413-545-2280. Applications will be accepted until 31 August 1986. An Affirmative Action/Equal Opportunity Employer.

ELECTRON MICROSCOPIST— CELL BIOLOGIST

Position available for a Ph.D. or M.S. cell biologist with resultion available for a Ph.D. or M.S. cell biologist with experience in electron microscopy. Experience in cell and tissue culture methods desirable. Work involves studying regulation of growth and differentiation at the cellular and subcellular levels using human and animal cells and tissue models. Responsibilities include conducting re-search, writing manuscripts, and preparing research pro-rocale posals.

Send curriculum vitae to:

Denise Johnson SOUTHERN RESEARCH INSTITUTE Personnel Office, Department 136 P.O. Box 55305 Birmingham, AL 35255-5305 An Affirmative Action/Equal Opportunity Employer

FACILITY COORDINATOR

The EM coordinator is a university supported position to administer a multiuser EM facility. Applicat position to administer a multiuser EM facility. Applicants should be experienced in EM maintenance, instruction, specimen preparation, and x-ray microanalysis. The facility has a Philips 300 TEM and JEOL 100CXII TEM/STEM interfaced with a Tracor Northern x-ray analysis system. Candidates with M.S. and at least three years of experi-nes in EM given performed.

FACULTY POSITION

The Department of Biochemistry and Biophysics, University of California, Davis, invites applications for a full-time (11 months per year) tenure-track appointment as assistant professor of biochemistry. A Ph.D. or equivalent degree is required in biochemistry or closely related field; postdoctoral experience of at least 2 years is preferred. Preference will be given to applicants with demonstrated research competence in the general area of eukaryotic molecular biology. The principal teaching duties involve participating in graduate and undergraduate biochemistry courses, advising students, and guiding graduate students to advanced degrees in biochemistry. Applications must be received by I August 1986. Candi-Applications must be received by August 1960. Canadi-dates should submit a résume, copies of publications, outline of proposed research program, and arrange for three letters of reference to be sent to: Dr. Michael E. Dahmus, Chair, Search Committee, Department of Biochemistry and Biophysics, University of Califor-nia, Davis, California 95616.

The University of California is an Equal Opportunity Employer and invites applications from all qualified individunls

POSITIONS OPEN

FACULTY POSITIONS IN BIOMEDICAL ENGI-NEERING, BOSTON UNIVERSITY COLLEGE OF ENGINEERING, at the assistant/associate/full professor levels in expanding Department of Biomedical Engineering for September 1986 or January 1987. Applicants should have an earned doctorate, be committed plicants should have an earned doctorate, be committed to quality teaching at both undergraduate and graduate levels, and have the desire to develop strong research programs. Collaboration with the Boston University School of Medicine or other engineering departments may be facilitated through a joint faculty appointment. Candidates with backgrounds in image processing, com-puter science, chemical engineering, mechanical design, electronics, computer engineering, biomechanics and materials, or robotics are especially welcome. Opportuni-ties for part-time (adjunct) faculty positions and for collaborative arrangements with nearby institutions in-volved in biomedical research and development are also volved in biomedical research and development are also available. Candidates should send résumé, list of publications, names and addresses of five references, and a brief statement of teaching and research interests to: Dr. Eugene Smithberg, Chairman Engineering Search Committee, College of Engineering, 110 Cumming-ton Street, Boston, MA 02215. Boston University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION. The Department of Pharmacology, University of Texas Medical School at Houston, invites applications for regular tenure-track position at any academic level: assistant, associate, or full profes-sor. Primary responsibilities are the performance of research and the teaching of medical and graduate students. Applications are encouraged from individuals interested in the regulation of biological processes at the interested in the regulation of biological processes at the molecular and/or cellular level. Interested individuals should send a covering letter outlining future research plans, curriculum vitae including a bibliography, and the names of three individuals who may be contacted as references to: Dr. G. Alan Robison, Department of Pharmacology, University of Texas Medical School, P.O. Box 20708, Houston, Texas 77225. The dead-line for the receipt of anylications is 31 luly 1986. Au line for the receipt of applications is 31 July 1986. An Equal Opportunity Employer. Women and minorities are encouraged to apply.

FACULTY POSITION

The James A. Baker Institute for Animal Health is seeking candidates for a full-time, tenure-track assistant professorship in an area of research that would complement the institute's existing strengths in infectious dis-eases, immunology, and arthritis. The successful candidate is expected to have superior training in the use of contemporary research methods. He or she would be expected to develop an independent program sustained investigator-initiated research proposals. The candidate would also be expected to participate in the teaching programs of the New York State College of Veterinary Medicine, Cornell University. A D.V.M. is desirable, but not essential.

The Baker Institute is a superbly equipped research facility with a distinguished record in canine research. In addition to its association with the College of Veterinary Medicine, Institute scientists have ongoing programs with faculty in other divisions of the university and with scientists in other institutions. Send résumé to: **Dr. D**. D. McGregor, Director, James A. Baker Institute for Animal Health, New York State College of Veteri-nary Medicine, Cornell University, Ithaca, New York 14853. Cornell University is an Affirmative Action/Equal Opportunity Employer/Educator.

FACULTY POSITION

A tenure-track faculty position at the professor level is available at the University of Kentucky Medical Center effective 1 September 1986. The position is offered jointly by the Department of Pharmacology and the Sanders-Brown Research Center on Aging. The candi-date is expected to (i) be experienced and widely pub-lished in cholineric pharmacology (b)chemistry (fii) lished in cholinergic pharmacology/biochemistry, (ii) have an ongoing funded research program, (iii) relate to a funded group of investigators working on Alzheimer's disease and aging, (iv) participate in graduate student teaching. Applicants should send complete curriculum vitae and names of three references to: W. R. Markes-bery, M.D., Sanders-Brown Research Center on Ag-ing, University of Kentucky Medical Center, Lexington, KY 40536. An Equal Opportunity/Affirmative Action Employer.

ELECTRON MICROSCOPY (EM)

ence in EM given preference. Salary dependent upon training and experience. Send résumé and names of three references by 27 June to: Dr. Rodney L. Parsons, Chairman, Department of Anatomy and Neurobiolo-gy, College of Medicine, University of Vermont, Burlington, Vermont 05405. An Equal Opportunity/Affirmative Action Employer

MERRELL DOW RESEARCH INSTITUTE

Strasbourg Center

invites applications for

Senior Pharmacologists

The Strasbourg Research Center is devoted to fundamental research directed toward therapeutic agents. Our international multidisciplinary group of scientists, (Chemistry, Biochemistry, Cellular Biology, Pharmacology) is well recognized for their contribution to science. The stimulating environment of the Center offers an opportunity for a high level of achievement.

The successful candidates for these positions will have several years postdoctoral experience and a record of achievement in independent creative research. The potential for leadership in a growing concern will be an important consideration as will the capacity to accomplish avant-garde exploratory research directed towards new drug discovery. Work is underway on many aspects of cell differentiation and cell membrane phenomena including the design and synthesis of novel enzyme inhibitors and receptor (ant)agonists.

Our Research Center is located in Strasbourg, France, the crossroads of Europe. With its excellent University, beautiful Cathedral and lovely setting on the Rhine, Strasbourg is a particularly inviting place to live.

Salary and conditions of employment are commensurate with the importance of these positions and the experience of the appointees.

Please send C.V. + the names of 3 referees to Dr. John Fozard, Head of Pharmacology, Merrell Dow Research Institute, 16 rue d'Ankara, 67084 Strasbourg Cédex France.

Protein Chemist

Inovative scientific developments in many areas and new ideas are the key to the success of the BASF group. An important prerequisite is our research, especially in interdisciplinary fields.

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BASF is developing proteins of therapeutic importance using gene technology. We are looking for a young PhD protein chemist who will strengthen these research and development activities.

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FACULTY POSITION COLLEGE OF MOUNT ST. JOSEPH Cincinnati, Ohio

Assistant Professor of Chemistry. Full-time position available August, 1986, for teaching introductory chemistry, plus advanced courses in at least two specialty areas, biochemistry, physical, and/or analytical. Responsibilities also include student advising and direction of some undergraduate research. Ph.D. required. Candidate must show strong commitment to teaching in small liberal arts college.

Send letter of application, résumé, and three current letters of reference to: Chairperson, Department of Chemistry, College of Mount St. Joseph, Mount St. Joseph, Ohio 45051. Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF TORONTO

The Botany Department, University of Toronto, is seeking candidates for FACULTY POSITION(S) at the ASSISTANT PROFESSOR level under the NSERC University Research Fellowship program.

Applications are invited from suitably qualified candidates in all areas of plant sciences.

Salary will be at the assistant professor level and commensurate with experience. The successful candidate(s) will be expected to conduct independent research programs, collaborate with other faculty in the department in the development of active research groups, and teach in their area of expertise.

The successful applicants' appointments would start as soon as possible after 1 April 1987.

Send curriculum vitae and three letters of reference to: Dr. J. P. Williams

Chairman Department of Botany University of Toronto Toronto, Ontario Canada M5S 1A1

Closing date for receipt of applications is 1 August 1986. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

FACULTY POSITION AVAILABLE IN MOLECULAR CELL BIOLOGY

The Division of Life Sciences, The University of Texas at San Antonio, invites applications for a tenure-track position at either a junior or senior level in molecular cell biology with interest and experience in recombinant DNA research related to the nervous system. Candidates must show demonstrated research productivity and substantial ability and interest in teaching. Responsibilities will include teaching, research, and supervision of undergraduate and graduate student research. A Ph.D. is required and postdoctoral experience desired. Submit curriculum vitae, names of at least three professional references, and representative publications to:

Director, Division of Life Sciences The University of Texas at San Antonio San Antonio, Texas 78285–0662

Applications will be reviewed starting 1 July 1986 and the review will continue until the position is filled.

IMMUNOPATHOLOGIST—Henry Ford Hospital, a tertiary medical center with an established multiorgan transplant program and an expanding oncology program, is seeking an additional immunopathologist. The division includes immunochemistry, cellular immunology, histocompatibility, and ligand assay laboratories. The successful candidate will be Board-certified or -eligible in anatomic and clinical pathology, and will have had fellowship training or equivalent experience in immunopathology. The position includes major service responsibilities and an opportunity for independent or collaborative investigation. Candidates with research experience in molecular biology, transplantation or tumor immunology, or flow cytometry will be given particular consideration. Interested individuals should send curriculum vitae, complete bibliography, and the names of three references to: Michael J. Deegan, M.D., Department of Pathology, Henry Ford Hospital, 2799 West Grand Boulevard, Detroit, MI 48202.

POSITIONS OPEN

BROWN UNIVERSITY FACULTY POSITION WITH ADMINISTRATIVE DUTIES AS ASSOCIATE DEAN FOR MINORITY AFFAIRS (BIOLOGY AND MEDICINE)

The Division of Biology and Medicine, Brown University, invites applications for a faculty position which combines teaching and research with administrative responsibilities as associate dean for minority affairs (biology and medicine). Applicants should have a Ph.D. or M.D. degree (or equivalent), a demonstrated record of excellence in research in a biological or medical science, and experience related to minority affairs in higher education. The faculty position is tenurable, with rank depending on qualifications and experience. The successful candidate is expected to establish an independent, externally funded research program, to teach undergraduate, graduate, and/or medical courses, and to serve for a minimum of 5 years as associate dean. Responsibilities as associate dean include exercising leadership in minority faculty development, directing divisional programs for recruitment and retention of minority students, and representing the division with respect to minority affairs at the national level, as well as within the university and its affiliated hospirals.

Applications, including curriculum vitae, a statement of research interests, and the names of five references, should be sent by 15 September to: Frank G. Rothman, Dean of Biology, Box G, Brown University, Providence, RI 02912.

Brown University is an Equal Opportunity/Affirmative Action Employer.

FISH BIOLOGIST. The University of Texas Marine Science Institute in Port Aransas has an opening for a State-funded RESEARCH SCIENTIST IN: Fish Biology. Preference will be given to candidates competent in the use of modern experimental techniques to study marine fishes in both the field and laboratory. Candidates must have a Ph.D. degree and a record of research accomplishments in one of the following areas: ecology, physiology, biochemistry, or genetics. Successful applicants are expected to obtain extramural funding to develop an independent research program and to cooperate in development of multidisciplinary projects involving fishes from the local estuarine and continental shelf environments. Postdoctoral experience is preferred.

Send letter of application, statement of research interests, curriculum vitae, and names of three references before 15 July 1986 to: Dr. Robert S. Jones, Director, Marine Science Institute, The University of Texas at Austin, Port Aransas, Texas 78373.

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

LABORATORY COORDINATOR

Experienced individual to operate and maintain cell sorter/analyzer (FACS and FACSTAR). Will extensively interact with scientific personnel involved in carrying out phenotypical analysis of lymphocytes. B.S. or M.S. degree in sciences required and at least 1 year of cytofluorometry/cell sorting experience preferred. Some knowledge of computers and electronics desirable. Salary commensurate with experience. Please send résumé to: L. Tarallo, Personnel Department, THE MOUNT SI-NAI MEDICAL CENTER, 19 East 98 Street, New York, NY 10029. An Equal Opportunity Employer.

MOLECULAR BIOLOGIST FOR TENURE-TRACK FACULTY POSITION for development of a research program in the molecular biology of thoracic cancers. The successful candidate will be expected to develop an individual and collaborative research program. Experience in gene cloning technology, eukaryotic cell biology, and oncogene amplification and activation is desired. A doctoral degree with at least 2 years of postdoctoral experience is required. A fully equipped laboratory, technical assistance, and a competitive salary will be provided. To apply, send curriculum vitae, recent publications, and the names of three references to: Jack A. Roth, Chairman, Department of Thoracic Surgery, Box 109, University of Texas M. D. Anderson Hospital, 6723 Bertner Avenue, Houston, Texas 77030. Telephone: 713-792-6932. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITIONS IN IMMUNOLOGY

The Immunological Sciences Research Group of the Faculty of Medicine, The University of Calgary, invites applications for faculty positions at the assistant professor level or higher. Well-qualified candidates will be eligible to apply for salary and establishment support by competitive application to the Alberta Heritage Foundation for Medical Research. Establishment support will cover the cost of setting up a new laboratory with major/minor equipment and operating funds for an initial 2-year period. Successful candidates will be expected to develop an independent research program in molecular or cellular immunology. Applicants require an M.D. or Ph.D. and research training at the postdoctoral level. Remuneration will be based on salary scales at The University of Calgary. Successful applicants will be expected to devote approximately 75 percent of their time to research and the remaining 25 percent to related activities including teaching. All qualified individuals are encouraged to apply, but preference will be given to Canadian citizens and permanent residents. Interested candidates should submit their curriculum vitae, names of three referees, and a letter stating their aims and research interests by 1 September 1986 to:

Dr. R. McGarry Immunological Sciences Research Group Faculty of Medicine, The University of Calgary 3330 Hospital Drive NW Calgary, Alberta, T2N 4N1

FACULTY POSITION IN PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for a tenured or tenure-track faculty position in the Department of Pharmacology. We are interested in candidates with a strong record of research accomplishment and an interest and talent for teaching. All areas of pharmacology will be considered, but candidates should have a molecular orientation in their research. A Ph.D. in pharmacology or related areas, or an M.D., is required. Level of appointment and salary will be commensurate with achievement and experience. Curriculum vitae, references, and a summary of research interests should be sent before 31 July 1986 to:

Dr. Larry Stein Department of Pharmacology College of Medicine University of California Irvine, California 92717

The University of California is an Affirmative Action Employer.

IMMUNOLOGIST/IMMUNOCHEMIST: A postdoctoral research position is available immediately, requiring experience in antibody purification, protein chemistry, gel electrophoresis, Western blotting, and enzyme immunoassays. Background in virology and/or cellular immunology is also desirable. Salary is in accord with NIH postdoctoral guidelines. M.S. and predoctoral may be considered if experience merits. Send résumé and letters of reference to: Dr. L. Kronenberg, LEE Bio-Molecular Research Inc., 11211 Sorrento Valley Road, San Diego, CA 92121; telephone: 619-452-7700.

Position available for a MOLECULAR BIOLOGIST with Ph.D. degree or equivalent training in recombinant DNA technologies. The successful candidate needs to have considerable experience in modern molecular biology techniques for eukaryotic gene cloning, sequencing, and analyzing expression of the transfected gene. Closing date 15 July 1986, or until filled. Starting salary \$23,000. Send résumé and names of three references to: Dr. C. S. Teng, Laboratory of Biotechnology, School of Veterinary Medicine, North Carolina State University, 4700 Hillsborough Street, Raleigh, NC 27606. Telephone: 919-829-4200.

Excellent opportunity for PH.D. RESEARCHER in new, basic brain science program bearing on psychiatric disorders (molecular level research preferable). Faculty appointment—must have teaching experience. Funding available: personal salary, laboratory equipment, and start-up salaries. Curriculum vitae and sample papers to: K. Z. Altshuler, M.D., University of Texas Health Sciences Center, Department of Psychiatry, 5323 Harry Hines, Dallas, TX 75235–9070. An Equal Opportunity Employer University.

SCIENTIFIC DIRECTOR

NEUROTECH, Inc., a rapidly growing biotechnology company at the leading edge of neuroscience, has an immediate opportunity for a highly qualified Scientific Director.

The successful candidate will have a Ph.D. in the biological sciences, a proven record of scientific achievement and recognition evidenced by an extensive publications record. The successful candidate would be expected to initiate new research programs within the general area of neuroscience (neuropeptides, neurotropic factors, neural grafts . . .) and work with management in defining overall strategy. Additionally, the candidate will possess strong leadership and communications skills and a demonstrated ability for creative thinking.

Competitive salary and significant equity are offered.

Send curriculum vitae including a list of publications to:

Lawrence Bock Fairfield Venture Partners 650 Town Center Dr., Ste. 810 Costa Mesa, CA 92626

NEUROTECH

ASSOCIATE CHIEF OF STAFF for RESEARCH AND DEVELOPMENT

The Bedford, Massachusetts VA Medical Center is seeking a Clinician/Scientist to direct our strong *ongoing* research program in neurosciences. The Program is closely aligned with Boston University School of Medicine and VA Geriatric Research Education and Clinical Center.

Candidates experienced in Research Administration with ability to exercise strong leadership in both basic and clinical research may inquire by contacting:



M. Stuart Strong, MD Associate Chief of Staff VA MEDICAL CENTER 200 Springs Road Bedford, MA 01730 (617) 275-7500 ext. 237

Equal Opportunity Employer M/F

Post-Doctoral Scientist

The 3M Biotechnology Program is seeking a creative post-doctoral scientist to be located at the corporate research facilities in St. Paul, Minnesota. The successful candidate will work in collaboration with senior chemists, biochemists, and immunochemists on research and development of novel immunoassay methods. Preference will be given to candidates who have recently earned a PhD in fields of chemistry or biochemistry with demonstrated experience in protein or nucleotide chemistry, especially the chemical modification of these macromolecules.

The Biotechnology Program is an established, interdisciplinary research facility, exploring a wide range of technologies including recombinant DNA, monoclonal antibodies, and bioprocessing. The 3M post-doctoral scientist will receive an excellent compensation and benefits package, and will experience a stimulating work environment offering a unique opportunity for professional growth. Candidates should send their curriculum vitae, including lists of publications and personal references, to Paul G. Capiz.

Staffing & Employee Resources/3M 224 1W 3M Center St. Paul, MN 55144

We Are An Equal Opportunity Employer M/F/H/V



IMMUNOLOGIST - CELL BIOLOGIST POST-DOCTORAL POSITION: BASIC RESEARCH IN AN INDUSTRIAL SETTING

The Pharmaceutical Research and Development Division of The Upjohn Company, located in Kalamazoo, Michigan has a post-doctoral position in its Cell Biology/Biotechnology Unit involving basic research of membrane proteins in cells of the immune system. This research will include analysis of cell surface proteins, cell sorting, analysis of binding sites for unique immunomodulatory agents, HPLC, and analysis of cell mediated immune responses. The work is funded by an outside agency, and appointment to this position will be for 1-2 years. A background in cellular immunology and/or the immunology of lymphokines in addition to experience in the chromatography and electrophoretic analysis of proteins is necessary. Candidates with 0-3 years of post-doctoral experience will be considered for this position. Salary and benefits are extremely competitive.

For confidential consideration, please call outside Michigan toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you immediately. Please refer to Ad Number 1838-F when calling.



An Equal Employment Opportunity Employer M/F

Immunologist/ Protein Chemist

ZymoGenetics, **Inc**. is a Seattle-based biotechnology firm specializing in the development of proteins of industrial and pharmaceutical value. We are seeking two innovative and independent researchers with postdoctoral training and research experience for these positions:

Immunologist: The candidate should have experience in generation of antisera and monoclonal antibodies. A sound knowledge of immunoassay development and tissue culture techniques is essential.

Protein Chemist: The candidate should have rigorous training in protein chemistry as well as experience in enzymology, cell biology, and/or protein secretion.

ZymoGenetics offers excellent research facilities, competitive compensation, and our location in the Seattle area affords opportunities for professional development as well as a rich variety of recreational and cultural activities.

To apply, send a letter of application with a brief statement of research interests, and identification of three references, and your curriculum vitae to: Laura Castellano, ZymoGenetics, Inc., 2121 North 35th Street, Seattle, WA 98103. An Equal Opportunity Employer.



V.P. RESEARCH

Nelson Research & Development Company, headquartered on the University of California campus in Irvine, California, is a small, publicly-traded, highly creative organization with approximately 50 employees, which designs and develops pharmaceutical products and novel drug delivery systems for licensing to pharmaceutical companies on a worldwide basis.

To meet our ambitious growth plans we seek a V.P. Research to direct our Research activities which consist of Computer Assisted Drug Design, Organic Chemistry, Pharmacology, and Pharmaceutical Research. The candidate will be a member of the top management team and will play a significant role in the development of the company.

The ideal candidate will hold a Ph.D. in one of the Biological Sciences and have a strong chemistry background. 10+ years experience, preferably in both academia and industry, is required, and research management experience would be advantageous. Above all, the candidate must be a dynamic, stimulating, articulate leader who can interface with top management and represent the company scientifically.

The position offers an excellent salary and a comprehensive benefits package, including stock options. The opportunity for a University appointment may exist. Above all the selected person will work in a productive environment ideal for professional growth.

Please submit C.V. in confidence to:

Nelson Research Center 1001 Health Sciences Road West Irvine, California 92715 Attn: Joan Isaac

EMPLOYMENT OPPORTUNITIES

Agracetus is an industry leader in applying the techniques of biotechnology to agriculture. Agracetus has evolved from Cetus Madison Corporation (founded in 1981) as a joint venture initiated by W.R. Grace & Co. and Cetus Corporation. The partnership combines the research strengths and technology of Cetus with the business experience and success of the Grace Agricultural Chemicals Group.

We currently seek several individuals to join our plant genetic engineering group. You will be part of an exciting program directed towards understanding and developing gene transfer and expression in plants.

SCIENTIST - MOLECULAR BIOLOGY

This individual must have solid experience with genetic engineering techniques. Postdoctoral experience is necessary. We would like an innovative individual to complement our interdisciplinary research team dedicated to the genetic improvement of major crops.

RESEARCH ASSISTANTS/TECHNICIANS

Agracetus seeks several self-motivated individuals to join our talented team. Candidates must have a B.S. or M.S. degree. One of the positions requires at least one year experience in molecular biology. Letters of application should include a detailed description of experience with recombinant DNA techniques.

We offer competitive salary, a comprehensive benefits package and advancement opportunity. The location of the research complex, near the University of Wisconsin in Madison, provides an ideal setting for both career and lifestyle enhancement. Please send your resume to: **Personnel Department, Agracetus, 8520 University Green, Middleton, WI 53562.** We are an Equal Opportunity Employer.

Agracetus

Senior Research Technician

Molecular Genetics, Inc., a leading biotechnology firm, is looking for an individual with a strong background in endocrinology to perform and develop in vitro and in vivo bioassays for a broad range of hormones.

The successful candidate will hold a M.S. or B.S. in biology or related field and have a minimum of two years additional research laboratory experience in protein radioiodination, radioimmunoassays, membrane receptor binding assays, and tissue culture of primary and established cell lines. Preference will be given to candidates with bioassay experience of hypothalmic, hepatic and/or pituitary produced hormones.

Molecular Genetics, Inc. offers a stimulating multidisciplinary research environment, and a competitive salary and benefits package. Interested applicants should submit curriculum vitae and a list of three references to:



Human Resources Molecular Genetics, Inc

AUSTRALIA

SECV_CSIRO **RESEARCH FELLOWSHIP** PLUME RISE AND DISPERSION STUDIES A\$27,475-A\$40,410

GENERAL: The State Electricity Commission of Victoria is funding a Research Fellowship at the CSIRO Division of Atmospheric Research. The topic will be in the area of Plume Rise and Dispersion studies in the Atmospheric Boundary Layer. The Fellowship will be for three years subject to satisfactory progress in an area of relevance to the SEC. Progress will be assessed on the basis of annual progress reports. The Fellowship will be tenable at the CSIRO Division of Atmospheric Research, Aspendale, Victoria.

DUTIES: In collaboration with senior scientists, to undertake research directed towards understanding and predicting the rise and dispersion of buoyant plumes in the atmosphere, particularly under convective conditions. Depending on the skills of the successful applicant, the program may focus on theoretical, laboratory-experimental or field-observational aspects of the problem.

It is required that techniques and results should be developed and evaluated in a manner appropriate for Latrobe Valley locations though it may not be necessary that field work or supporting data should come entirely from these locations.

QUALIFICATIONS: A PhD degree or equivalent qualifications and research experience in physics, mathematics or engineering. Experience in fluid mechan-ics, especially turbulent flows, atmospheric dynamics, laboratory modelling of geophysical flows or lidar remote sensing techniques in the atmosphere would be an advantage

TENURE: A term of 3 years. Australian Government superannuation benefits available

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No M7999, should be directed to:

The Chief **CSIRO** Division of Atmospheric Research Private Bag No 1 MORDIALLOC VIC 3195 AUSTRALIA

By July 11, 1986.

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

Associate Director— **Group Leader**

Toxicology



Pfizer Inc. is a world leader recognized for pharmaceutical research and innovation. We currently offer an excellent opportunity to a Toxicologist-Manager in our multidisciplinary Department of Clinical and Scientific Affairs. You will be joining a dynamic organization that has successfully brought to market the first oral calcium channel blocker, Procardia, the antibiotics Cefobid and Spectrobid, and Glucotrol for the control of diabetic hyperalvcemia

As our toxicology group leader, you will plan, coordinate and supervise all pre-clinical toxicology development; and supervise an Associate Director of Toxicology. You will manage a toxicology drug development program through the NDA stage; conduct analytical reviews of toxicology data, including the evaluation and

summarization of data in verbal or written form to management, contract facilities and regulatory agencies. In this highly visible role, you will interact with other departmental members, clinical research teams, management staff, regulatory agencies and market-

ing personnel; as well as toxicologists and managers of domestic/international drug companies in evaluating/joint development of licensed drug candidates. Involves approximately 15% travel.

You must have a PhD in Pharmacology, Toxicology or Physiology backed by at least 10-12 years of scientific experience, including 5 years as a toxicologist in the pharmaceutical industry. Also required are broad based toxicology experience that includes "hands-on" laboratory experience in designing, conducting and evaluating drug toxicity studies; excellent interpersonal, analytical, organizational and communications skills; and a high level of self-motivation.

Pfizer offers a fully competitive salary, outstanding benefits and exceptional potential for further professional development and growth. For immediate confidential consideration, please send resume to: Cathlin L. Green, Pfizer Inc., 235 East 42nd Street, New York, NY 10017. Only candidates with appropriate credentials and background will be considered. No fee paid.

LABORATORY OF ENZYMOLOGY National Center for Scientific Research (C.N.R.S.)

A long-term position is open at the Laboratory of Enzymology of C.N.R.S. for a **MOLECULAR BIOL-OGIST** studying the molecular mechanisms of gene expression. Enough space is offered for the development of a group of about eight persons. The scientific environment is actively involved in biophysical chemistry, enzymology, and genetics. Current studies cover microtubules, actin, DNA repair, transposons, RecA, toxin biosynthesis, metabolic regulation, and allosteric mechanisms. Applicants should send curriculum vitae to: Dr. **Guy HERVE**, Director, Laboratoire d'Enzymologie, C.N.R.S., 91190 Gif-sur-Yvette, France.

MICROBIOLOGY-IMMUNOLOGY RESEARCH SCIENTIST—Candidate must have M.S. with experience or Ph.D. Duties include collaboration, development, staffing, implementation, and funding of laboratory and clinical research program in in vitro immunization. Experience with lymphocyte culture desirable. Excellent opportunity for growth and professional development. Nassau County Medical Center is a 644 bed teaching hospital affiliated with SUNY–Stony Brook. Please forward résumé with salary requirements to: Victoria Schauf, M.D., Chairman, Department of Pediatrics, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow, New York 11554. An Equal Opportunity Employer.

MOLECULAR BIOLOGIST

The Laboratory of Molecular Endocrinology at the Massachusetts General Hospital seeks a research associate to work on vasopressin gene regulation. Experience in recombinant DNA techniques is preferable. The laboratory is focused on studies of the expression of polypeptide hormone genes. A microchemical facility for protein sequencing-synthesis and DNA synthesis is available in an adjacent care facility. Salary and rank are commensurate with experience. Send curriculum vitae and two letters of recommendation to: J. Habener, Chief, Laboratory of Molecular Endocrinology, Massachusetts General Hospital, Boston, MA 02114.

NEUROBIOLOGIST RESEARCH INVESTIGA-TOR position available to join a group engaged in studies of taste function. Ongoing research involves development of taste sensation, the role of chemoreceptors in control of upper airway reflexes, and interactions between afferent taste activity and efferent control of lingual salivary glands. Candidates for this position should be proficient in central single cell recording and iontophoretic application of neural tracers. Salary in the range of \$18,000 to \$20,000, depending on experience. Send curriculum vitae and three letters of reference to: Dr. R. M. Bradley or Dr. C. M. Mistretta, Department of Oral Biology, School of Dentistry, University of Michigan, Ann Arbor, MI 48109. A nondiscriminatory, Affirmative Action Employer.

Ph.D. BIOCHEMIST: With primary interest in collagen chemistry or related molecular biology. NIH-sponsored program seeks a highly qualified person at the assistant professor level. Current research involves basic and clinical aspects of collagen gene structure and regulation and acquired disorders of bone and connective tissue; additional topics of interest include growth factors and hormonal regulation of connective tissue synthesis. A faculty appointment in the Department of Biochemistry is available for the qualified applicant. Contact: Jay R. Shapiro, M.D., Chairman, Department of Medicine, St. Vincent Hospital, Worcester, MA 01604.

POSTDOCTORAL POSITION—The Dana-Farber Cancer Institute is seeking to fill one research position at the postdoctoral level to study the effects of recently purified growth factors and extracellular matrix on neural development and differentiation, using biochemical, molecular, and morphological approaches. Experience with primary cultures desirable. Joint appointment will be held in an appropriate department of Harvard Medical School. Send curriculum vitae and names of three references to: Dr. John Wagner, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

PHYSICS INSTRUCTORS—To teach physics lectures and laboratories. Course loads may include technical physics, general physics (algebra- and calculus-based), and metallurgy. A master's degree in physics and successful teaching experience is required. To start 18 August 1986. Submit letter of application, résumé and names, addresses, and telephone numbers of three professional references to: Personnel Services (100), Williamsport Area Community College, 1005 West Third Street, Williamsport, PA 17701. Equal Opportunity/Affirmative Action Employer.

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications from suitably qualified women and men for appointment to the position of POSTDOC-TORAL FELLOW/RESEARCH FELLOW, RE-SEARCH SCHOOL OF PHYSICAL SCIENCES. The Department of Applied Mathematics within the Research School (Head: Professor B. W. Ninham, EAA) works across the hour devices of huming the minimum. FAA) works across the boundaries of physics, chemistry, mathematics, and biology. Interests of the several experi-mental and theoretical groups range from surfactant aggregations and microemulsions, direct force measure-ments, chemical and statistical physics to basic immunology and neurophysiology. Applied work includes en-hanced oil recovery, soil science, and drug delivery. There are strong collaborative programs with other departments within the university and elsewhere. The current requirement is for an experimentalist to carry out research in areas of thin solid or liquid films, surfactant aggregation, or polymer science related to the direct force measurement techniques pioneered in the depart-ment. The position becomes available in March 1987 and enquiries may be made to: **Professor Ninham**. Closing date: 1 August 1986. Reference: PS.7.5.1. Salary will be in accordance with qualifications and experience within the range: postdoctoral fellow grade 1 (at a fixed point) the range position of a choice of the range point of 323,473 to 326,889 per annum; research fellow \$27,233 to 335,777 per annum. Appointment will be: research fellow normally up to 3 years, with the possibility of extension to maximum of 5 years; postdoctoral fellow normally 2 years, with the possibility of extension to maximum of 3 years. Superannuation, maternity leave, and assistance with travel and housing available. The university reserves the right not to make an appointment university reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote the reference number when submitting applications to: R. V. Dubs, Registrar, G.P.O. Box 4, Canberra, ACT, 2601 Australia. The University is an Equal Opportunity Employer.

POSTDOCTORAL FELLOW

The Biology and Medicine Division, Lawrence Berkeley Laboratory, University of California, has available a postdoctoral fellow position starting November 1986, in the area of the mechanism of chemical carcinogenesis by *N*-nitrosoureas and vinyl chloride. Requires recent Ph.D. in biochemistry, chemistry, or related field. Applicants should be familiar with nucleic acid chemistry. Experience in organic synthetic methods of physical properties of polynucleotides, or eukaryocytic enzymology is highly desirable. Requires demonstrated ability to conduct research with minimal supervision. Stipend range \$1750 to \$2035 per month. This is a 1-year appointment with possibility of renewal. Please send curriculum vitae and names of three referees to: J. Schilling, Lawrence Berkeley Laboratory, Employment Office, Number 1 Cyclotron Road, Berkeley, CA 94720. Please specify Job number B/3770. An Equal Opportunity Employer, MIFIH.

POSTDOCTORAL POSITION AVAILABLE The Space Physics Research Laboratory The University of Michigan

Applications are invited for a postdoctoral position commencing fall 1986. The position will involve the development of theoretical models and data analysis software for the High Resolution Doppler Image (HRDI) to be flown in the Upper Atmosphere Research Satellite. The HRDI will measure remotely the wind velocity vector and temperature in the stratosphere and mesosphere of the earth. Physicists and astronomers are particularly encouraged to apply. Send résumé and the names of three references to: Dr. Vincent J. Abreu, Space Physics Research Laboratory, 2455 Hayward, Ann Arbor, MI 48109. Deadline for applications is 31 July 1986.

A Nondiscriminatory, Affirmative Action Employer

POSITIONS OPEN

A POSTDOCTORAL POSITION is available starting June 1986, for 2 years to study the hormonal control of differentiation of teratoma cell lines at the cellular and molecular levels. Work will involve protein purification and DNA recombinant technologies. Experience in molecular biology or protein chemistry preferred. Candidates should send a copy of curriculum vitae and names of three references to:

Andrea L. Terwillegar Personnel Manager W. ALTON JONES CELL SCIENCE CENTER 10 Old Barn Road Lake Placid, New York 12946

An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN UPPER ATMOSPHERIC PHYSICS

A postdoctoral position (or an assistant research scientist position for a suitably qualified applicant) is available in the Space Physics Research Laboratory at the University of Michigan for a qualified candidate with a Ph.D. degree and experience in upper atmosphere physics. The position involves the analysis of data obtained from the NASA Dynamics Explorer-2 satellite, as well as the use of theoretical (numerical) modeling techniques. The appointment will be for 1 year (renewable) and is currently open. The applicant should identify and describe areas of his or her expertise that can support theoretical investigations in upper atmospheric physics. A résumé and the applicant's experience should be forwarded to:

Dr. T. L. Killeen Space Physics Research Laboratory Department of Atmospheric and Oceanic Sciences The University of Michigan 2455 Hayward Ann Arbor, MI 48109–2143 A Nondiscriminatory, Affirmative Action Employer

POSTDOCTORAL POSITION: Available immediately to participate in ongoing studies on: developmental regulation of gene expression in schistosome parasites, (P. LoVerde and D. Rekosh), development of idiotypes for vaccination against schistosomes (P. LoVerde and H. Kohler, RPMI), or adenovirus gene expression and DNA replication (D. Rekosh, Department of Biochemistry). Experience in molecular genetics and/or immunology (hybridoma or idiotype) necessary. Intellectual environment with highly interactive group. Send curriculum vitae, statement of research interests, and three letters of reference to: Dr. Philip T. LoVerde, Department of Microbiology, School of Medicine, State University of New York (SUNY), 203 Sherman Hall, Buffalo, New York 14214. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available 1 September 1986 to study immunological functions of subsets of lymphocytes infected by HTLV-III. Candidates should have a Ph.D. in molecular biology, immunology, or virology and be interested in surface and molecular alterations in cells induced by the virus. Send curriculum vitae, research interests, and experience and three letters of recommendation to: Dorothy E. Lewis, Ph.D., Howard Hughes Medical Institute, Department of Microbiology and Immunology, Baylor College of Medicine, Houston, Texas 77030.

POSTDOCTORAL POSITION IN NEUROBIOL-OGY available immediately to study peptidergic modulation of synaptic transmission in *Aphysia*. Experience with intracellular recording techniques, immunocytology, or peptide biochemistry desirable. Send curriculum vitae and names of three references to: Dr. Philip Lloyd, Pharmacological and Physiological Sciences, University of Chicago, 947 East 58, Chicago IL 60637. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately in the area of membrane phospholipids and ion transport during sepsis. Applicants should have Ph.D. in physiology and interest in cellular metabolic aspects. Contact: Dr. M. M. Sayeed, Department of Physiology, Loyola University Stritch School of Medicine, Maywood, IL 60153. Telephone 312-531-3402. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION, NIH-funded, to study the relationship between eukaryotic gene activity and the direction of gene replication [Molecular Cellular Biology 6, 946]. Experience in molecular genetics essential. Send résumé and names of three references before 30 July 1986 to: Dr. Michael Leffak, Department of Biological Chemistry, Wright State University, Day-ton, Ohio 45435. Wright State University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION

Available summer, 1986 to investigate the genetics and Available summer, 1986 to investigate the genetics and regulation of glycolytic enzymes in bacterial and yeast systems. Prefer recent Ph.D. with experience and interest in enzymology and molecular genetics. Send résumé and three letters of reference to: Dr. L. O. Ingram, Depart-ment of Microbiology and Cell Science, University of Florida, Gainesville, FL 32611. An Equal Opportuni-ty/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediate ly in toxicology/biochemistry to conduct research on insecticide resistance in Colorado potato beetle. Experi-ence with enzyme chemistry and molecular approaches required. Send professional goals, curriculum vitae, tran-scripts, and references to: Mark Whalon, Department of Entomology, Michigan State University, East Lan-sing, MI 48824.

POSTDOCTORAL POSITION. Available immediately to participate in research on molecular basis of oncogenic transformation. Candidates should have Ph.D. degree with training in molecular biology. Experi-ence with recombinant DNA technology and cell culture desirable. Salary competitive. Send curriculum vitae and Head, Molecular Oncology, Alton Ochsner Medical Foundation, 1516 Jefferson Highway, New Orleans, LA 70121. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to study the cellular physiology of local circuits in the neocortex. The applicant should have experience in the techniques of cellular electrophysiology; neuroanatomi-cal expertise is also desirable. Send curriculum vitae, a brief statement of research interests, and the names of three references to: Barry W. Connors, Ph.D., Depart-ment of Neurology, Stanford University School of Medicine, Stanford, CA 94305. Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION in neurochemistry POSTDOCTORAL POSITION in neurochemistry available immediately to study the effect of membrane lipids on the receptor-effector coupling events of the central neurotransmitter receptors. Techniques used in-clude equilibrium and dynamic fluorescence measure-ments, radioligand binding, some protein purification, and common biochemical techniques. Background in physical biochemistry is desirable. Position offers the opportunity to help in the growth and development of a new biotechnology commany. Matrix Research Laboranew biotechnology company. Matrix Research Labora-tories, Inc. offers competitive stipends and benefit pack-ages. The applicants should send curriculum vitae, a letter describing research interests, and names of three references to: Dr. Lida Antonian, Matrix Research Labs, Inc., North Academic Complex, 7/232, City College of New York, New York, NY 10031. Matrix is an Equal Opportunity/Affirmative Action Employer.

LAVAL UNIVERSITY MEDICAL CENTER MOLECULAR ENDOCRINOLOGY HORMONE-SENSITIVE CANCER

Positions at the POSTDOCTORAL AND TENURE-TRACK RESEARCHER LEVELS are available in the fields of control of steroidogenesis, immunology of endocrine-sensitive cancer, molecular biology of cancer, reproductive endocrinology, leukotrienes, and endocrine morphology.

Interested individuals should send curriculum vitae and list of publications to:

> Dr. Fernand Labrie Laboratory of Molecular Endocrinology Laval University Medical Center 2705 Laurier Boulevard Sainte-Foy (Que) Canada G1V 4G2 Telephone: 418-654-2704.

13 JUNE 1986



BIOPHARMACEUTICALS

MicroGeneSys, Inc. is a biopharmaceutical company utilizing an advanced gene expression technology based on baculovirus vectors and insect cell cultures to develop a variety of pharmaceutical products for the prevention and treatment of human and animal disease

Senior Scientists

Expansion of MicroGeneSys' research and development efforts have created a need for senior scientists with a Ph.D. in Molecular Biology, Immunology, Microbiology or Biochemistry, a minimum of 2 years postdoctoral experience and an exceptional level of expertise in one of the areas listed below. Successful candidates for these positions must demonstrate the necessary creativity and intellectual capacity to design and direct the development of new recombinant pharmaceutical products. Ability to interact with technical staff and other scientists is also important.

Protein Biochemistry

A biochemist with experience in purification and characterization (including sequencing) of natural and recombinant proteins. A strong research effort will be expected, with an emphasis on the preparation of biologically active proteins for clinical trials and commercial development.

Immunology

An immunologist/virologist with experience in the commercial development of human or animal vaccines. Responsibilities will include development of immunoassays, immunochemical analysis of recombinant proteins and testing of human and animal sub-unit vaccines

Molecular Biology

A molecular biologist with experience in recombinant DNA technology. Primary responsibilities will include working independently and in conjunction with other senior scientists in the development and commercial applications of expression vector technology

Process Development Manager

A process engineer with experience in scale up of animal cell fermentation. The successful candidate will be responsible for implementing full commercial scale production of recombinant DNA products based on insect cell culture. Experience in large scale animal cell culture and commercial production of pharmaceutical proteins is desired

Medical Director

MicroGeneSys, Inc. has several candidate vaccines that are ready to enter clinical trials. We are seeking a Medical Director to be responsible for human clinical trials leading to the registration of these new recombinant vaccines. Responsibilities will include design, supervision, and reporting of Phase I and Phase II clinical studies. Candidates should have an MD, Ph.D. or both and be experienced in clinical evaluation of vaccines and communication with government registration officials.

MicroGeneSys, Inc. offers a stimulating scientific environment, competitive salaries and benefits, and equity participation. The company's south-central Connecticut location offers a variety of recreational and cultural opportunities, as well as convenient access to major metropolitan centers. Qualified candidates should submit a resume and list of references (in confidence) to the Personnel Director.

MicroGeneSys, Inc. 400 Frontage Road, West Haven, CT U.S.A. 06516-4147 (203) 932-3203 An equal opportunity employer.

CALIFORNIA BIOTECHNOLOGY INC.

DIRECTOR—PRODUCT & PROCESS DEVELOPMENT

California Biotechnology Inc., is seeking an outstanding individual for the position of **Director of Product & Process Development.** The successful candidate will be responsible for planning and directing a product/process development facility that will contain laboratories for fermentation, purification, formulation, and analysis of new pharmaceutical products. The products will be primarily, but not exclusively recombinant DNA encoded polypeptides produced via mammalian cell substrates.

The Director will staff and coordinate the individual laboratories and will guide promising new products from research to clinical trials. Close interaction with Project Leaders, Regulatory Affairs, Business Development and Marketing, and outside pharmaceutical companies can be expected.

Qualified candidates must have a Ph.D. and a minimum of three to five years experience managing a process/product development facility in the biotechnology or pharmaceutical industry. Demonstrated scientific creativity and leadership skills with a strong ability to pursue aggressive product development schedule a must.

FORMULATIONS CHEMIST

A position is available for a **Formulations Chemist** to strengthen and develop our drug delivery research group. The Formulations Chemist will prepare formulations of drugs and protein/peptide products using our unique Intranasal Drug Delivery System. Experience with chemistry of micelles, emulsions and liposomes would be an advantage. A PhD or equivalent is preferred.

California Biotechnology Inc. is a rapidly growing biotechnology and drug delivery company engaged in the development of health care products. We offer a stimulating research environment with a competitive compensation and benefits package including equity participation. Submit resumes/curriculum vitae with references to:

Human Resources/MF California Biotechnology Inc. 2450 Bayshore Parkway Mountain View, CA 94043 An Equal Opportunity Employer



MOLECULAR & CELL BIOLOGY, VIROLOGY, YEAST GENETICS POSTDOCTORAL POSITIONS

Chiron Corporation, a recognized leader in the biotechnology industry, has several postdoctoral positions available. Fellowships are tenable for a period of two years with possible renewal for a third year. Successful candidates will join ongoing research programs in one of the following areas.

- Viral vaccine development, study of the natural host immune response, identification and production of key viral antigens, role of adjuvants and other immunomodulators in vaccine administration.

- Immunological aspects of retroviral infection, neutralizing antibodies, cellular immunology, vaccine strategies.
- Molecular Biology of Non-A, Non-B human viral hepatitis agents with a view to developing diagnostics and vaccines.
- Development and testing of methods for the synthesis and modification of nucleic acids and their application to molecular biology and to the detection of infectious organisms.
- Superoxide dismutases and peroxidases, and applications to age-related diseases. Analysis of their mechanisms and protein engineering to modify thermostability and serum half-life.
- Regulation of transcription and translation in cultured animal cells. Development of vectors and cell systems for the expression of foreign proteins.
- Growth factors. Isolation of their genes and production of the proteins by recombinant DNA technology and
 protein engineering. Studies on their biological activities and potential applications to therapeutics.
- Bioprocess development, yeast fermentation and strain improvement, purification and analysis of proteins from recombinant organisms.
- Molecular genetics of yeast. Areas of research include gene regulation, secretion, heterologous gene expression, proteases and extrachromosomal genetic elements.

Send curriculum vitae and two names of references together with an indication of particular area of interest to Chiron Postdoctoral Program, c/o Diana Wyles, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608.

CHAIR

MOLECULAR BIOLOGY

RESEARCH INSTITUTE OF THE CLEVELAND CLINIC FOUNDATION

The Molecular Biology Search Committee seeks a Chairman for a newly created Department of Molecular Biology within the Research Institute of the Cleveland Clinic Foundation. This program will provide an extraordinary opportunity for an individual to develop a new and flexible program that is well supported by the Foundation. It is expected that the individual ual will maintain an active research program and will have the major role in the development of this Department. The new department will be well positioned to interact with several basic research programs within the Institute that cut across many disciplines.

We are looking for a distinguished scientist of national recognition in molecular biology with interest and ability to build and lead a vigorous and major program. Applicants must possess a Ph.D., M.D. or both and qualifications appropriate for a full professor level appointment.

The position is available immediately with a negotiable start date. Salary is open and will be commensurate with qualifications and experience. The number of additional staff positions and laboratory space are 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 postdoctoral trainees, devoted to basic biomedical research.

Applicants should send their curriculum vitae and bibliography to Dr. Thomas Gavan, Chairman, Molecular Biology Search Committee, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio 44106.

The Cleveland Clinic Foundation is an Equal Opportunity Employer.



THE CLEVELAND CLINIC FOUNDATION

EXECUTIVE DIRECTOR

ENERGY AND ENVIRONMENTAL ENGINEERING CENTER

The Desert Research Institute invites applications and nominations for the position of Executive Director of the Energy and Environmental Engineering Center. The Desert Research Institute is a division of the University of Nevada System and is engaged in basic and applied research for government and industry. The Energy and Environmental Engineering Center (3EC) is one of five research centers of the Institute. The 3EC's activities are directed to engineering science of energy systems, and to energy related environmental research, primarily pertaining to the atmosphere. The current research programs include studies of (a) renewable energy sources, heat pump and transformer technology, and (b) visibility, air quality measurements, aerosols, air chemistry and air quality modeling. The Center, with 18 professionals and 17 support personnel, is funded primarily by research grants and contracts.

The Executive Director must have the administrative skills and personality required to foster the productivity and creativity of a group with diverse research interests. Applicants must hold a doctorate in a relevant discipline or have equivalent research and administrative experience. The successful applicant must have an outstanding record of scientific accomplishment and leadership with broad interdisciplinary experience. The Executive Director must have the demonstrated ability to attract human and financial resources and must also be an articulate and enthusiastic advocate for DRI, the Center and its activities.

The Executive Director is responsible to the President of the Institute for all aspects of Center operations. The Institute is headquartered in Reno, with other offices and facilities at Stead, Las Vegas and Boulder City, IV. Institute research programs are carried out world-wide. The search committee will begin reviewing applications on July 1, 1986 and will continue until suitable candidates are identified. Please send vita and supporting information to:

> Ms. Twyla Harrison Personnel Officer Desert Research Institute P.O. Box 60220 Reno, NV 89506

The Desert Research Institute is an Affirmative Action/Equal Opportunity Employer.

HOUSTON BIOTECHNOLOGY INCORPORATED

Unique Career Opportunities At All Levels Including Director Of Research

Houston Biotechnology is a new company initially specializing in ophthalmic and neurologic products. Our first product, now under development, was acquired through an exclusive licensing agreement with Baylor College of Medicine.

Our stability is ensured through initial financing raised through several institutional investors including U.S. Venture Partners, INCO, Allstate and the Woodlands Venture Capital Group. In total, these investors have assets exceeding 500 million dollars.

Your Opportunity

Houston Biotechnology offers a once-in-a-lifetime opportunity to those individuals who seek greater challenges—and greater rewards—including equity participation for all those selected. Numerous positions are immediately available for senior and junior scientists in the following disciplines: Cell Biology and Tissue Culture Technology; Immunology and Hybridoma Technology; Vision Research and Neurobiology; Molecular Biology and Biochemistry.

About 9,000 sq. ft. of laboratory space in a new biotechnology building will be in operation by September 1, 1986. An additional 15,000 sq. ft. of lab space will be available in 1987.

Director of Research

We are also seeking a highly accomplished scientist with proven ability to manage, inspire, recruit and direct a superb staff of scientists, which we expect will number 60 in one year. A substantial equity position is associated with this position. The Director of Research will report directly to the Chairman of the Board.

Our Principals

Houston Biotechnology principals are Dr. Dominic Man-Kit Lam, Dr. Jared M. Emery and Alfred G. Scheid. Dr. Lam, Chairman of the Board, is an internationally recognized vision researcher and neuroscientist. He is also Professor and Director of Baylor College of Medicine's Center for Biotechnology. Dr. Emery, Executive Vice-President, is a leading ophthalmic surgeon specializing in cataract/ IOL surgery. Mr. Scheid, President, has over 25 years experience in investment banking, corporate finance and management. He was a founder of California Biotechnology, Inc., which he served as President and Chief Executive Officer from 1982 to 1985.

The Better Life

Houston Biotechnology is located immediately adjacent to Baylor's new Center for Biotechnology

at the Research Forest in The Woodlands, a planned community in 25,000 acres of forest just 28 miles north of Houston, and 14 miles from the Houston Intercontinental Airport. The Woodlands is a complete community with 300 businesses, 6,200 iobs and over 20.000 residents. Superb schools, athletic facilities, a four star country club and shopping malls are all easily accessible in the Woodlands. A wide range of housing choices, including condominiums, townhomes and single family dwellings are available at very affordable prices. The company will assist finding suitable housing for new employees.

Confidentiality

All curriculum vitae will be kept in strictest confidence and no reference checks will be made without your specific permission. In addition, if you would like further information, please call 713-363-0999 and have your questions answered on a confidential basis. Reverse charges will be accepted by referring to this ad.

Please send curriculum vitae to: Houston Biotechnology Incorporated 2170 Buckthorne Pl., Suite 350 The Woodlands, Texas 77380 Attn: Dr. Dominic Man-Kit Lam

HOUSTON BIOTECHNOLOGY

2170 Buckthorne Place, Suite 350 The Woodlands, Texas 77380

POSTDOCTORAL POSITIONS

Several postdoctoral positions are available for the development of photodynamic herbicides. Familiarity with herbicide research or with plant pigment research is helpful. Applications will be accepted until 15 July 1986, or until satisfactory candidates are selected. Address curriculum vitae and three letters of reference to: Professor C. A. Rebeiz, Laboratory of Plant Pigment Biochemistry and Photobiology, 206B Vegetable Crops, 1103 West Dorner Drive, Urbana, IL 61801.

POSTDOCTORAL POSITION Situation Vacant

Applications are invited for a postdoctoral research position for 1 year. We are developing microbes for degradation of organic sulfur compounds. The primary technique used in this work will be plasmid-assisted molecular breeding. The candidate chosen for this research should have a Ph.D. in microbiology with training in biochemistry or a Ph.D. in biochemistry with hands-on training in microbiology. Applicants must have received their degrees within 3 years of appointment. Applications should be sent to:

Loutralle Crawford Box J-CMT-55 ARGONNE NATIONAL LABORATORY 9700 South Cass Avenue Argonne, IL 60439

Argonne is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE—IPM. Laboratory and field research dealing with biology, ecology, and control of apple maggots, with emphasis on bait sprays. Ph.D. in entomology with emphasis in field experimentation. Deadline 27 June 1986. Salary: \$16,000 to \$17,000 per year. Send résumé, statement of qualifications, transcripts, and two letters of recommendation to: M. T. AliNiazee, Entomology Department, Oregon State University, Corvallis, OR 97331. Oregon State University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS available in July through September 1986: (i) MOLECULAR BIOLO-GY to characterize hemoglobin beta gene cluster in sickle cell anemia patients and (ii) NMR/BIOCHEMISTRY to perform NMR imaging on an animal model for sickle cell vasoocclusion and use high resolution NMR (200–500 MHz) to study abnormal and malaria infected red cells. Send curriculum vitae and references to: R. L. Nagel or M. E. Fabry, Department of Medicine, Ullmann Room 921, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461.

POSTDOCTORAL RESEARCH ASSOCIATE: Studies on regulation of gene expression (transcription and mRNA half-life) matrix (especially proteoglycans and glycosaminoglycans). Please send curriculum vitae and references to: Dr. Lola Reid, Albert Einstein College of Medicine, 601 Chanin Cancer Center, 1300 Morris Park Avenue, Bronx, NY 10461.

PRE-CLINICAL DEVELOPMENT SCIENTIST

Ph.D. or D.V.M., 3 years of experience in areas of xenograft models, monoclonal antibody evaluations, and in vivo pharmaceutical evaluations required. Additional experience desired: (i) handling radioactive materials, (ii) gamma camera imaging, (iii) preclinical toxicity assessments. Pharmaceutical industry experience is preferred. Compensation commensurate with qualifications, plus stock options. Résumé to: NeoRx Corporation, 410 West Harrison Street, Seattle, WA 98119.

RESEARCH SCIENTIST

The Microbiology Division of NPI, a leading biotechnology company, invites applications for the position of senior scientist to work on mushroom strain selection and mushroom genetics. Qualified candidates must have a Ph.D. in microbiology or genetics with experience in fungal genetics. Please send a current résumé and names of three references to: Dr. R. K. Kulkarni, NPI, 417 Wakara Way, Salt Lake City, UT 84108.

POSITIONS OPEN

POSTDOCTORAL POSITION IN NEUROPHARMACOLOGY

NIH-Funded Postdoctoral Research Position to study purinergic modulation of seizure susceptibility. Techniques employed include intracerebral microinjections, radioligand binding, HPLC, primary cell culture, and chemoconvulsant seizure threshold determinations. Knowledge of stereotaxic procedures is highly desirable. Successful candidate will interact with active group of neuroscientists engaged in interdisciplinary research. **Research site** is at the Mark O. Hatheld Marine Science Center (HMSC) in Newport on the central Oregon coast. Research is in collaboration with laboratories at the HMSC and main campus of Oregon State University in Corvallis.

Position available July 1986 for 3 years.

Applicants for position should send curriculum vitae, statement of research interests, and names of three references to:

Thomas F. Murray, Ph.D. Mark O. Hatfield Marine Science Center Oregon State University Newport, OR 97365 Telephone: 503-867-3011

Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

RESEARCH SCIENTIST/ HEMATOLOGY PRODUCTS

A leading manufacturer of hematology control products seeks a highly motivated and innovative scientist to create and develop new and enhanced products in the company's hematology diagnostic line. The successful candidate will have an advanced degree with a strong background in cell biology/biochemistry, and a proven history of research achievement. A knowledge of RBC, WBC, and/or platelet preservation is desirable. Send curriculum vitae and letter of application to: Dr. Roger Lucas, R&D Systems, 614 McKinley Place NE, Minneapolis, MN 55413.

ASSOCIATE EDITOR SCIENCE MAGAZINE

Editorial position available for a Ph.D. inorganic chemist, physical chemist, or solid-state physicist with two or three years of research experience; wide general interest in science and instrumentation; 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 résumé with cover letter, including salary requirements, to:

> Carolyn Bell SCIENCE Magazine 1333 H Street, NW Washington, D.C. 20005

Equal Opportunity Employer

Biotechnology Diagnostics/Vaccines

Cambridge BioScience Corporation, a biotechnology company specializing in infectious disease diagnostics and vaccines, offers exciting positions in its Hopkinton, MA laboratories. We are seeking advanced level scientists, research associates and production technicians. A number of new diagnostic products utilizing r-DNA proteins and monoclonal and antibodies will be introduced in 1986.

Research Associates Protein Chemistry/Immunochemistry and Immunology

Seek individuals with B.S. or M.S. in a lifescience or chemistry to participate in vaccine development. Responsibilities include: protein purification and analysis, characterization of protein through immunological techniques, and immunization and analysis of immune response in small animals. Also seeking scientists with industrial experience in hybridoma development and monoclonal antibodies.

Quality Control Manager/ Production Technicians

Experience with production, development and QC of diagnostic products, including GMP procedures.

Cambridge BioScience offers a unique and stimulating environment and close working associations with leading academic institutions. Qualified applicants should send resume and salary requirements to: Cambridge BioScience, Personnel Department, 35 South Street, Hopkinton, MA 01748.



MONOCLONAL HOI DRTHO WAS II

Most people think that Ortho is just a gynecological company. That's not surprising. We are and always have been a leader in that field.

But we're also a great deal more. Monoclonal antibodies for example —we were the first to provide a panel of monoclonals for the identifica-tion and quantification of subsets of T-lymphocytes. Furthermore, we are the world leader in developing one of these as a therapeutic tool. And, one of our key research programs is the development of a monoclonal antibody to treat organ transplant rejection.

While most other companies are just getting started in this area of pharmaceuticals, we are in the advanced stages of clinical research.

And that's just the beginning. We're also investigating anti-infective, cardiovascular and gastro-intestinal drugs. And we're the foremost dermatological company. In short, we're a diversified leader – an ideal place for scientists

who want to work in an environment where their creativity, their opinions and their judgments are valued and rewarded.

Add all this to the fact that we're part of the Johnson & Johnson family of companies, and you'd be hard pressed to find a better place to work.

Right now we're looking for immunologists, peptide chemists and biochemists who possess a PhD and a minimum of 5-7 years' related experience.

So, whether or not you have considered Ortho in the past, perhaps you should now. We're a lot more than you think. We invite you to forward your resume and salary requirements in confidence to: Manager Selection, Dept. C-4, Ortho Pharmaceutical Corporation, Route 202, Raritan, NJ 08869-0602. An equal opportunity employer.



A LOT MORE THAN YOU THINK.

AUSTRALIA

CSIRO

LASER RADAR STUDIES A\$27,533–A\$35,325 DIVISION OF ATMOSPHERIC RESEARCH ASPENDALE VIC

GENERAL: The Division of Atmospheric Research has a staff of 130 including 70 professional scientists and undertakes research into physical and chemical aspects of atmospheric phenomena and related areas. There is an expanding programme involving the use of lasers to study atmospheric phenomena. A visible ruby lidar has been used extensively for the measurement of clouds for climate studies. It is now also being used for tracking of smoke plumes and measurement of wind, and the system will be expanded to accommodate a fast Nd'YAG laser. A tunable carbon dioxide infrared laser has recently been developed and will be used to study the distribution of trace gases, pollutants in the atmosphere and general meteorological quantities. The development of a coherent infrared lidar for wind and trace gas measurements is also a possibility.

DUTIES: To investigate and develop better lidar techniques and to assist in research into new lidar applications related to the above studies.

TENURE: Indefinite with Australian Government superannuation benefits available.

QUALIFICATIONS: A recognised degree or equivalent qualifications in electrical engineering, physics or applied physics, together with at least five years experience in optics, particularly lasers, or electro-optics. Some experience in microprocessors would also be an advantage.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No A1168, should be directed to:

The Chief CSIRO Division of Atmospheric Research Private Bag No 1 MORDIALLOC VIC 3195 AUSTRALIA By July 11, 1986.

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

Last year we put \$127,714,000 into a few good ideas.

Syntex Research

SCIENTIFIC

ENGINEER

Development of cells cultures

developping selected cell lines to ensure recom-

binant DNA production of high-value added

conducted in close collaboration with several

TRANSGENE which is in charge of the cloning and

Candidate must be graduated from colleges of

university level specializing in professional training

and/or PhD; a two years experience in eucaryo-

Future prospects are of great importance and

Please send resume and salary requirement to :

FONDATION

Marie-Françoise Sauzedde, BP 100,

91943 Les Ulis Cédex, FRANCE.

You will be responsible for optimizing and

You will be involved in a strategic project

French and international teams, including

tes cells culture technology is required.

could interest a high-valuable candidate.

expression steps of the program.

Perfectly bilingual French/English.

therapeutic proteins.

Work focuses on a dozen therapeutic areas, including cardiovascular and gastrointestinal medicine, virology, immunology and cancer diagnosis and treatment.

Molecular Biologist

You'll participate in cloning and the expression of genes from relevant or bacterial pathogens, using prokaryotic or eukaryotic vectors. You must have a Ph.D. in Molecular Biology, Genetics or Biochemistry and 2-5 years' experience in recombinant DNA technology. Familiarity with mammalian cell cloning vectors is essential; experience with protein purification and molecular genetics is desired.

Protein Chemists

Duties include developing procedures for the purification of proteins produced through recombinant DNA technology. You'll also isolate biologically active protein from natural sources or recombinant organisms. Ph.D. in Biochemistry and coursework in protein chemistry or molecular genetics are required with 2-5 years' experience in protein purification. You must also be familiar with affinity and ionic exchange chromatography and HPLC.

BS/MS Biologists

Positions are also available for Biologists with BS/MS degrees and specialized skills in micro-injection and insitu hybridization. Please send your cover letter, indicating position of interest, resume, and salary history to: Syntex, Professional Employment, Dept. PS/S, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.



PROJECT MANAGERS: MOLECULAR BIOLOGY and ASSAY SYSTEMS

We are looking for two technical managers to lead our development of new products for use in molecular biology research and in automation of biological assays (ELISA, FIA, BIOASSAYS). Our new joint venture, linking Perkin-Elmer with Cetus Corporation, is dedicated to uncovering and developing novel instruments and systems for use in biotechnology. Based in Emeryville, California, development activities will tap Cetus' research, engineering and product development groups, and Perkin-Elmer's engineering and manufacturing functions to commercialize these new products. Technical Project Managers will identify new projects, prepare technical and engineering products specifications, coordinate the project work of Cetus and Perkin-Elmer staff, and ensure that projects are completed within budget and schedule.

Requirements include an MS or equivalent in a relevant field of biological sciences, and at least two years of experience developing instrumentation. Experience in managing product development is highly desirable.

Please send your resume in confidence to:

CETUS CORPORATION Box PCS 1400 Fifty-third Street Emeryville, CA 94608 E/O/E

PERKIN-ELMER

BIO-TECHNOLOGY GENERAL CORP.

Now Seeking

Experienced Professionals In a Variety of Disciplines for its Israeli subsidiary:

- Molecular Biology
- Protein Chemistry
- Biochemistry
- Fermentation
- Macromolecular Purification
 Finance
- Finance
 Chemical Engineering
- Research/Project Management
- General Management
- Patent Counsel

Experience of at least five (5) years in either pharmaceutical or genetic engineering industry preferred.

Applications will be treated as strictly confidential.

All correspondence should be forwarded to:

Dr. S. Fass President Bio-Technology General Corp. 375 Park Avenue New York, NY 10152



Or another way of saying it is, last year Syntex had a research/sales ratio of 13.5%, one of the highest in the health sciences industry. And next year, it'll be even higher. Because our reputation as a world leader is based on our proven ability to develop and market innovative, effective and safe healthcare and medical diagnostic products. And we think that's worth a few extra dollars for the finest facilities, equipment and staff to thoroughly research the ideas that will benefit tomorrow's patients worldwide. Be a part of our success. Currently, we have positions available with:

Syva

A subsidiary of Syntex, we're a leader in medical diagnostics, developing, manufacturing and marketing tests to diagnose infectious diseases and to detect and quantify clinically significant substances in patients' body fluids.

Senior Chemists

• Development

You must have a Ph.D. in Biochemistry, Biophysical Chemistry or Immunochemistry and 2 years' postdoctoral training in protein chemistry and enzymology. Immunodiagnostic product development experience would be helpful.

Microbiology R&D

Ph.D. in Biochemistry or related field and 2 years' postdoctoral training. Experience with microbial membrane protein chemistry, assay development, protein modification and monoclonal antibodies preparation is desired.

• Research

To qualify, you must have a Ph.D. in Biochemistry, Immunology or Microbiology and 2 years' postdoctoral experience. Hands-on experience in hybridoma technology and in the preparation of monoclonal antibodies is essential. Familiarity with immunodiagnostic assays is desired.

BS/MS Chemists

Similar positions are also available for Chemists with BS/MS degrees and at least 3 years' related lab experience.

Please send your resume, indicating position of interest, to: Syva, Professional Staffing, Dept. DP/S, P.O. Box 10058, Palo Alto, CA 94303. An equal opportunity employer.



POSTDOCTORAL POSITION TUMOR VIROLOGY

Available immediately; we have recently discovered RNA covalently bound to SV40 TAg and to the oncogene product p53. The RNA's, the bonding, and the possible significance to oncogenic transformation will be studied. U.S. citizenship or residency required, funding through NIH training grant. Send curriculum vitae and names of three references to:

Dr. Robert Carroll Department of Pathology New York University Medical School 550 First Avenue New York, NY 10016

POSTDOCTORAL RESEARCH FELLOW

Postdoctoral research position available for studies in membrane biochemistry/biophysics. Some experience in the areas of fluorescence spectroscopy, lipid bilayers, drug-membrane interactions, cell membrane isolation and characterization, and lipid analysis would be advantageous. Starting date as soon as possible. Send curriculum vitae and names of three references to: Dr. C. D. Stubbs (reference HS2), Membrane Biology Group, Department of Pathology, Thomas Jefferson University Medical College, 1020 Locust Street, Philadelphia, PA 19107.

HARVARD SCHOOL OF PUBLIC HEALTH Professor of Behavioral Biology

The Harvard School of Public Health is searching for a professor of behavioral biology particularly interested in cardiovascular physiology. The appointee should have demonstrated research accomplishments in physiology or behavior as related to cardiac function. The successful candidate will be expected to teach and lead research programs in that area in the school's Laboratory of Gardiovascular Physiology.

Send curriculum vitae, a statement of research interests, and the names of three evaluators to:

Professor A. H. Tashjian, Jr. Laboratory of Toxicology Harvard School of Public Health 665 Huntington Avenue Boston, MA 02115

Applications from qualified women and minority candidates are particularly invited.

SEARCH EXTENDED

The University of Minnesota Medical School invites applications for the position of **PROFESSOR AND HEAD OF THE DEPARTMENT OF PHYSIOLO-GY**. The head of the Department of Physiology will be the academic, scientific, and administrative leader of this major department which also serves as the university center for this important field. The department head has the responsibility of implementing medical, allied health, and graduate education in physiology and guiding the development of a strong departmental research program. A distinguished scientist is sought to expand the department's commitment to contemporary investigative approaches for defining cellular function and its regulation in molecular and physical terms.

We seek a candidate with outstanding academic credentials with a Ph.D. or M.D. or both degrees, with at least 8 years of academic/research experience beyond the doctoral degree. The individual who will assume this new leadership must have international research stature and a currently active research program. Salary is competitive and negotiable. Starting date is 16 September 1986, or as soon as possible.

Interested candidates who meet the qualifications described are requested to send a current curriculum vitae documenting their qualifications and professional accomplishments. The deadline for receiving applications is 15 August 1986. Please send to:

Dr. Nelson D. Goldberg Chairman, Search Committee 3-260 Millard Hall 435 Delaware Street SE University of Minnesota Minneapolis, MN 55455

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

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to initiate work on the pathogenicity of human T-cell lymphotrophic virus and modulation of viral replication/ gene expression by antiviral agents. Applicants must have a Ph.D. with a research background in molecular virology/cell biology and prior experience in analyzing retroviruses. Excellent opportunity to participate in a multidisciplinary study involving collaborations with clinicians from the University of California at San Francisco. Interested applicants should send their résumés to: Dr. R. J. Jariwalla, Director of the Viral Carcinogenesis Program, Linus Pauling Institute Science and Medicine, 440 Page Mill Road, Palo Alto, CA 94306. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available summer/ fall, 1986 to examine the role of endogenous opioid peptides in the control of reproductive endocrinology in the male and female, particularly with respect to the onset of puberty and sexual maturation. Additional project areas include the effects of substances of abuse (for example, opiates and alcohol) during adolescence on sexual development and the effects of these compounds, administered pregestationally to males, on the subsequent development of their offspring. Salary commensurate with background and experience. Send curriculum vitae and the names of three references to: Dr. Theodore J. Cicero, Department of Psychiatry, Washington University School of Medicine, 4940 Audubon Avenue, St. Louis, MO 63110. An Equal Opportunity/ Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITIONS are available immediately to study regulation and mechanisms of heme and porphyrin transport mediated by proteins into liver, cancerous cells, and intestine. Studies will include use of cell culture, characterization of membrane receptor proteins using monoclonal antibodies, and cDNA cloning and sequencing. Applicants should hold a Ph.D. degree and have training in biochemistry or molecular biology. Experience in membrane receptors, protein chemistry, cDNA cloning, or transport would be useful, but is not required. Interested persons should send curriculum vitae and list of references to: Dr. Ann Smith, Department of Biochemistry and Molecular Biology, Louisiana State University Medical Center (LSUMC), 1901 Perdido Street, New Orleans, LA 70112. Equal Employment Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE— AQUATIC TOXICOLOGY GREAT LAKES ENVIRONMENTAL RESEARCH LABORATORY NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ANN ARBOR, MI

POSTDOCTORAL POSITION available immediately for studies of the physiological factors affecting the toxicity and bioavailability of organic xenobiotics to aquatic organisms. Expertise in biochemistry, toxicology, and/or invertebrate physiology is required.

The position, available immediately, is for 1 year, with possible extensions, and is funded at \$26,381. Successful candidates must have a Ph.D. and U.S. citizenship. Submit an SF-171 to: Department of Commerce, Central Administrative Support Center, Attention: Andrew Hicks, Room 1749, 601 East 12 Street, Kansas City, MO 64105.

RESEARCH SCIENTIST: The Stein Gerontological Institute is seeking a full-time research scientist in the field of aging. A Ph.D. degree is required, salary is commensurate with qualifications, and start-up funds are available. Please send your curriculum vitae, a brief statement of research interests, and three letters of reference to: Elliot Stern, Miami Jewish Home and Hospital For the Aged (MJHHA), 151 NE 52 Street, Miami, Florida 33137. SCI/MJHHA is an Affirmative ActionEqual Opportunity Employer.

VISITING PROFESSORSHIP, ORGANISMIC BIOLOGY, 1986–1987. Renewal possible. Ph.D. required. Teach introductory field course, two upper division courses (ecology, behavior, evolution, or invertebrate zoology), and two non-major courses. Research involving students encouraged. Send curriculum vitae and three letters of recommendation to: Dr. Carol A. Franklin, AVPAA, University of Redlands, Redlands, CA 92373–0999, by 7 July 1986. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MICHIGAN STATE UNIVERSITY RESEARCH ASSOCIATE POSITION ENVIRONMENTAL CARCINOGENESIS-MUTAGENESIS

Two positions available for persons with a strong background in molecular biology, biochemistry, or microbiology to investigate in diploid human cells in culture the molecular mechanisms of radiation and chemical carcinogen-induced mutagenesis and oncogenic transformation. The multidisciplinary approaches used include comparative studies in cells which differ in DNA repair capabilities; determination of the nature of the DNA lesions responsible for the biological effects; transfection of oncogenes, gene isolation, cloning and sequencing; and the site specific mutagenesis.

Send application, including curriculum vitae, reprints, and three letters of recommendation to:

Drs. J. Justin McCormick or Veronica M. Maher Co-directors, Carcinogenesis Laboratory B-647 West Fee Hall College of Osteopathic Medicine Michigan State University East Lansing, MI 48824-1316

MSU is an Affirmative Action/Equal Opportunity Institution.

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Arthropod-borne Animal Diseases Research Laboratory (ABADRL), Laramie, Wyoming has an opening for RESEARCH ENTOMOLOGIST, GS-11/12 to investigate the vector competence and genetics of the biting gnat, *Culioides paritipennis*, for transmission of bluetongue virus serotypes and other orbiviruses, and to develop predictive models for vector competence and for bluetongue and *C. varitipennis* epidemiology and control. Knowledge of medical entomology, vector competence and genetics, and predictive modeling systems is required. A Ph.D. degree is desirable. Bachelor's degree in the appropriate field or equivalent education and experience, plus 3 years of professional experience or graduate education is needed to qualify. For additional information, telephone: Dr. **Thomas Walton**; 307-766-6684. For application procedures and application forms, telephone: Cathleen Enuton, 301-344-3138, Agricultural Research Service, Beltsville, MD 20705. Please code application W-13. Salary is commensurate with experience (GS-11, \$26,381 to \$34,292 and GS-12, \$31,619 to \$41,105 per annum). Selectee expected to begin work on or about 12 October 1986. Candidates must be U.S. citizens. *An Equal Opportunity Employer*. Applications must be received by 10 July 1986.

RESEARCH TECHNICIAN POSITION available for Georgetown University Medical Center Bone Marrow Transplantation Program. Salary \$22,500. Please send résumé to: Dr. Robert J. Jacobson, Division of Hematology, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, DC 20007. An Affirmative Action/Equal Opportunity Employer.

GERIATRIC MEDICINE

The Wright State University, School of Medicine, seeks nominations and applications for a SENIOR FACULTY POSITION to head a multi-disciplinary group in geriatric medicine. The head of the group will lead the development and implementation of creative new education, research, and service programs for the school. The head will have budgetary authority and will interact with the dean directly regarding operations and through a senior-level advisory committee regarding policy. The candidates should hold the M.D. (or equivalent) degree, qualify for a senior faculty appointment in a relevant clinical department of the School of Medicine, and be eligible for a license to practice medicine in Ohio. At least 5 years of experience in geriatric education and research and a fellowship in geriatrics are highly desirable.

Applications (including curriculum vitae, bibliography, and list of references) and nominations should be sent to: William D. Sawyer, M.D., Dean, Wright State University School of Medicine, P.O. Box 927, Dayton, OH 45401, Attention: Geriatric Medicine. All applications received by 1 July 1986 will be considered; if the position is not filled therefrom, applications will be considered until the position is filled. Wright State University is an Equal Opportunity/Affirmative Action Employer.



Untitled (1986), cement, polymer, silicone, oxides on marine plywood and mahogany, 24" x 48" x 81/2". Laddie John Dill. A wooden armature is primed with a cement and polymer emulsion pigmented with oxides. A pattern is then executed on the surface using the pigmented emulsion poured adjacent to areas of silicone. Polished glass triangles are then laminated to the wet, poured surface. The color system is based on the oxidation and crystallization of alkalides in the cement, a process created by and unique to the artist.

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PROPULSION • RESEARCH



hD Molecular Biologists and Biochemists

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

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

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

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

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

MERCK & CO., INC



Merck Sharp & Dohme Research Laboratories has an immediate

Laboratories has an immediate opening for a Biochemist, Department of Biochemistry and Molecular Biology, under the direction of Dr. Kenneth Thomas to work on the biochemistry and biology of fibroblast growth factors (see PNAS [1985] 82, 6409; Science [1985] 230, 1385; TIBS [1986] 11, 81). Expertise in radioreceptor assay is important and experience in protein purification and characterization would be useful. This position could be filled at either the junior (M.S. plus 4 years experience), postdoctoral fellow or senior (Ph.D. with a minimum of 2 years postdoctoral work) level. Candidates applying for senior positions must have a strong record of productivity. Salary will be commensurate with qualifications and experience. Send a c.v., names, addresses and telephone numbers of three references and specify for which position application is being made to Susan R. Jenkins, P.O. Box 2000, Rahway, New Jersey 07065.

EEO/AA/VH/EMPLOYER





Biotechnology Protein Chemistry Molecular Biology

Repligen Corporation, a leading biotechnology company involved in the development of innovative peptide and protein products by recombinant DNA and conventional biochemical techniques, seeks qualified Research Scientists and Research Associates in the areas of:

Protein Chemistry with strong background in molecular biology and biochemistry. Candidates should have experience in protein purification and characterization.

Molecular Biology with training in recombinant DNA techniques. Experience in gene construction and screening desirable.

Research Scientists must have Ph.D. plus minimum of 1 year postdoc experience. Research Associates must have B.S./M.S. in biological or chemical sciences plus 1-2 years' experience.

Repligen offers competitive salaries, excellent benefits, and equity participation. Submit resume and references to: **Personnel Director**, **One Kendall Square**, **Building 700**, **Cambridge**, **MA 02139**.

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Seragen, Inc., a rapidly growing biotechnology company, is offering exciting opportunities in the Boston, Massachusetts area to qualified scientists. Our Therapeutic Research groups have an immediate need to fill several openings:

Cellular Immunologist

We are seeking a Cellular Immunologist having a minimum two years post-doctoral experience with a broad range of tissue culture and animal model skills. Primary responsibilities will include the development of systems to assess therapeutic efficacy of biologic agents in modulating immune responses. Ideal candidate will be a highly motivated self-starter with the ability to manage technical personnel. Background in regulatory factors promoting cell proliferation and differentiation preferred.

Bacterial Geneticist

Our current needs also require a highly qualified Bacterial Geneticist for our Molecular Biology department. The candidate will work closely with other molecular biologists, protein chemists, and cell biologists on the design expression, purification, and characterization of genetically engineered molecules. This position requires a strong background in procaryotic genetics, mutant isolation, and strain development, in addition to a working knowledge of recombinant DNA technology.

Qualified candidates will have a Ph.D. and one+ year's experience in bacterial genetics.

Project Manager

We are also seeking a Ph.D. level individual with excellent "people" skills who will assist in the Management of our New Venture Research Program. The Manager will play a key role coordinating the activities of academic researchers, company scientists, business analysts and information specialists. We have developed our own computerized project evaluation system as a tool for our project management team.

Qualified candidates should have good, general scientific skills, preferably with a background in immunology, and be working in either an industry or academic environment.

Bioengineering Professional

We have an important position for at least a Master's level person who will be responsible for the fermentation and process development of genetically engineered bulk material for our pharmaceutical applications.

In addition to a minimum of four years fermentation experience, the qualified candidate must possess good managerial and "people" skills to assume responsibility for a group of at least ten people. A candidate with prior experience in biochemistry and process development is strongly preferred.

Seragen, Inc. offers a competitive compensation and benefit package and is located 30 minutes from the Boston area. Qualified candidates should send a resume to: **Personnel Director, Seragen, Inc., 128 Spring Street, Lexington, MA 02173.**

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EBAG

RESEARCH SCIENTIST. Surgical Metabolism Lab-oratory, Department of Surgery, Memorial Sloan Ketter-ing Cancer Center. Position available immediately for Ph.D. in biochemistry/nutrition with 2 to 5 years of experience in human and animal metabolic/nutritional research. Research responsibilities include conduct and supervision of ongoing research, as well as development of independent program-related research. Excellent op-portunity to be involved in basic and clinical research related to treatment and care of the cancer patient. Candidates should have demonstrated record of research activity and ability to interact with junior and senior staff. Send curriculum vitae, bibliography, and names of three references to: Dr. Murray F. Brennan, Chairman, Department of Surgery, Memorial Sloan Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST, 40 hours per week, \$720 per week. Ph.D. in systems engineering, 2 years of training in computer science in area of artificial intelligence. Familiarity with artificial intelligence, planning systems, decision analysis, and LISP programing. Knowledge of fuzzy set theory. Study, investigate, and develop generic technologies for automatic planning systems and employ artificial intelligence techniques in conjunction with fizzy set theory to handle and narrow conjunction with fuzzy set theory to handle and narrow uncertainty. Develop and integrate systems into prototype. Document systems. Write reports. Send this ad and résumé to: Job Number OC-3837, P.O. Box 9560, Sacramento, CA 95823–0560, no later than 28 June 1986. Job site: Moffet Field, California. Interview: La Canada, California.

RESEARCH TECHNICIAN needed to generate transgenic mice and coordinate transgenic facility. Duties: supervise breeding and maintenance of mouse colonies, extract mouse eggs, microinject recombinant DNA into eggs, transfer embryos, isolate and evaluate DNA. **REQUIRE**: At least 2 years research experience, knowledge of molecular biology, mouse anatomy and physiolo-gy. **PREFER**: Experience in microscopy, microsurgery, and animal husbandry. Send curriculum vitae and refer-ences to: Cynthia Nielsen, Howard Hughes Medical Institute, M-013, University of California, San Die-go, La Jolla, CA 92093.

CENTER FOR ENERGY AND ENVIRONMENT RESEARCH, UNIVERSITY OF PUERTO RICO is seeking a SENIOR SCIENTIST who will be responis seeking a SENIOR SCIENTIST who will be respon-sible for energy research. A background in energy and environmental science with research expertise in biocon-version and waste management is desired. Must have demonstrated outstanding leadership and administrative demonstrated outstanding leadership and administrative qualities and the ability to obtain competitive funding. Will be expected to develop a research program using an integrated approach to problems of energy production, waste management, and the management of natural resources. Contact: Dr. Juan Bonnet, G.P.O. Box 3682, San Juan, PR 00936; telephone: 809-767-0250 0350

The new nonracial University of Venda situated in Republic of Venda, Southern Africa, invites applications for the following post:

SENIOR LECTURER/LECTURER: BOTANY Requirements are: M.Sc./Ph.D. in plant development, or Molecular Biology

or Plant Physiology.

Reply with full curriculum vitae to: Assistant Registrar Personnel, University of Venda, Private Bag X2220, SIBASA, Venda.

SUPERVISOR, CLINICAL IMMUNOLOGY LABORATORY. Massachusetts General Hospital seeks person to fill supervisory role to direct the technical activities of the Clinical Immunology Laboratory, be responsible for the tests involving nephelometry, electro-phoresis, immunofluorescence, as well as radio- and

enzyme based immunoassays. Ph.D. candidate in immunology or MT (ASCP) tech-nologist with training in clinical immunology preferred.

Send applications as soon as possible to: Harold Gregory, Massachusetts General Hospital, 15 Fruit Street, Boston, MA 02114; telephone: 617-726-2205. We are an Equal Opportunity/Affirmative Action Emplover.

POSITIONS OPEN

VERTEBRATE PHYSIOLOGIST

Indiana State University, Department of Life Sciences, offers a tenure-track appointment at the level of assistant professor. The candidate will be expected to develop an independently fundable research program, teach in an area of specialization, and teach in an undergraduate anatomy and physiology course. Applicants qualified in the area of neurobiology are preferred. Salary is competitive. Applicants must be a United States citizen or hold a resident alien visa. Applications received after 31 July 1986 cannot be assured of full consideration. Send curriculum vitae and three letters of reference to:

Dr. Timothy Mulkey, Chairperson Physiology Search Committee Department of Life Sciences Indiana State University Terre Haute, IN 47809 An Equal Opportunity/Affirmative Action Employer

PROGRAM

GRADUATE PROGRAM IN MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology at New York Medical College invites qualified applicants to apply for the doctoral program. Research areas include the molecular biology of bacterial pathogenicity, genetic budies of protein synthesis, molecular mechanisms of DNA repair, structure and function of bacterial cell wall constituents, tumor and transplantation immunology, molecular mechanisms of tumor cell lysis, and the application of monoclonal antibodies to the study of differencausin of monocional antibodies to the study of differen-tiation proteins. Stipends of \$6000 are available on a competitive basis. Write to: Dr. Susan Wallace, Gradu-ate Program Director, Department of Microbiology and Immunology, New York Medical College, Val-halla, NY 10595.

CONFERENCE

INTERNATIONAL CONFERENCE ON PROS-TAGLANDINS AND LIPID METABOLISM IN RADIATION INJURY. To be held 2 and 3 October 1986 at the Crowne Plaza Hotel in Rockville, Maryland. The proceedings will be published. The abstract deadline is 16 August 1986. Registration fee is \$45 (\$25 for students). Sponsored by **The Armed Forces Radiobiol-**ogy Research Institute. For further information contact: Dingle Associates, 1625 Eye Street, NW, Suite 915, Washington, DC 20006.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Mass spectrometry (731, 7070E, HP Quad) of neuropeptides and neurochemicals. Radioimmunoassav, radioreceptor assay, HPLC. Send résumé to: Professor D. M. Desiderio, Department of Neurology, University of Tennessee-Memphis, Memphis, TN 38163.

POSTDOCTORAL FELLOWSHIPS—The Line-berger Cancer Research Center of the University of North Carolina at Chapel Hill will have openings in 1986 to 1987 for persons completing graduate studies to train with excellent investigators in basic cancer-related research in tumor virology, chemical carcinogenesis, drug development, cancer cell biology, and tumor immu-nology. Training is available in recombinant DNA tech-nology, gene expression, DNA replication, mutagenesis, molecular enzymology, regulation of cellular prolifera-tion grouth forstore immunogenetics protein phospha molecular enzymology, regulation of centual prometa-tion, growth factors, immunogenetics, protein phospho-rylation, and combined programs. Unique training re-sources and core facilities housed in the new Lineberger Center. Candidates must be U.S. citizens of permanent residents. Send for brochure listing faculty and apply with curriculum vitae, three letters of recommendation, a statement of research interests and graduate school statement of research interests, and graduate school records to: Director, Cancer Research Center, Line-berger Cancer Research Center 237H, Chapel Hill, NC 27514. UNC's Cancer Research Center is an Affirmative Action/Equal Opportunity Employer.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP/SCRIPPS CLINIC AND RESEARCH FOUNDATION. Cel-FELLOWSHIP/SCRIPPS CLINIC AND RESEARCH FOUNDATION. Cel-lular immunologist. Immediate position available for person with Ph.D. in immunology. Position will involve multiple projects studying the immunoregulation of T and B cell responses to hepatitis B viral antigens. Interest-ed applicants send curriculum vitae and letter outlining experience and interests to: David R. Milich, Ph.D., Scripps Clinic and Research Foundation, Department of Basic and Clinical Research (BCR10), 10666 North Torrey Pines Road, La Jolla, CA 92037. An Eaual Obtomunit/Affirmative Action Employer. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP IN ENDO-CRINOLOGY RESEARCH. Group is part of NIH-funded diabetes-endocrinology research center. Focus is on pancreatic islet research. Applicants must possess M.D. or Ph.D. degree with background in biochemistry, physiology, or cell biology. Stipend is competitive. Send curriculture with a description of current sectors. curriculum vitae, description of current research interests and objectives, and three letters of recommendation to: Postdoctoral Search Committee, Department of Bio-chemistry, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01605. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP

Postdoctoral position available immediately for a phar-macologist/medicinal chemist to study the metabolism and mode of action of antineoplastic drugs in vitro and in vivo. Candidate with relevant research experience is preferred. Send curriculum vitae and three letters of reference to: **Dr. A. Mohsin Mian, Papanicolaou Com**prehensive Cancer Center, University of Miami School of Medicine, P.O. Box 016960 (R-71), Mi-ami, Florida 33101.

TRAINEESHIPS

MOLECULAR PARASITOLOGY TRAINING PROGRAM

Meharry Medical College has been awarded a NIH Molecular Parasitology Training Grant. In collaboration with Vanderbilt University, graduate and postgraduate students will be trained in molecular, biochemical, and immunological aspects of African trypanosomiasis, Chamininological aspects of Africal trypatosoniasis, chi-gas' disease, schistosomiasis, malaria, and leprosy. The initial faculty of this training program includes (i) Dr. George C. Hill, African trypanosomiasis; (ii) Dr. Frank Hatcher, Chagas' disease; (iii) Dr. P. J. Patel, leprosy; (iv) Dr. Clint Carter, schistosomiasis; and (v) Dr. Daniel Colley, schistosomiasis.

Candidates with strong interests in parasitic diseases should apply immediately. Stipends for graduate stu-dents will be \$6,552 the first year, plus payment of tuition and fees. The positions are open to U.S. citizens or permanent residents. Stipends for postgraduate stu-dents with no previous experience will be \$15,996. Deadline for applications is 1 August 1986. Please send a letter stating research interest, curriculum vitae, and

three staing research interest, curriculum vitae, three letters of recommendation to: Dr. George C. Hill Molecular Parasitology Training Program Meharry Medical College Division of Biomedical Sciences Nashville, TN 37208 Telephone: 615-327-6193

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