

of his personal and professional papers shortly before he died, Buckley was able to find a good deal of his personal correspondence in the papers of colleagues such as Robert Yerkes (Yale) and Adolf Meyer (Johns Hopkins). In addition, Buckley has skillfully exploited a rich monographic literature in the history of psychology that has developed in the last 20 years as cultural and social historians discovered the potential of the history of scientific professions and as many psychologists turned to historical investigation as a means of gaining needed perspective on their discipline. *Mechanical Man* definitively dispels a number of myths concerning Watson, such as the claim that he was dismissed from Johns Hopkins because of controversial sex research. Buckley's biography is especially strong as a work of cultural history that interprets Watson's popular appeal. Buckley does not have a strong interest in the history of psychology as an intellectual discipline, however, and those who seek a more sympathetic account of Watson's achievements as a scientist may turn to Robert Boakes's *From Darwin to Behaviourism: Psychology and the Minds of Animals* (Cambridge University Press, 1984) and to Watson's scientific publications.

Buckley provides a convincing case study, however, for those who believe that reductionism is a poor strategy for intellectual historians regardless of their primary academic affiliation. John Watson's science was an expression of his energetic and tortured search for self-control and social status. Buckley shows why Watson wanted to banish consciousness from intellectual discourse, and why he failed. *Mechanical Man* deserves a wide audience.

JAMES REED

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Books Received

The Anasazi in a Changing Environment. George J. Gumerman, Ed. Cambridge University Press, New York, 1988. xxii, 317 pp., illus. \$49.50. School of American Research Advanced Seminar Series. Based on a seminar, Santa Fe, NM, Oct. 1981.

Animal Clinical Biochemistry. The Future. D. J. Blackmore *et al.*, Eds. Cambridge University Press, New York, 1988. x, 386 pp., illus. \$59.50.

Les Automatismes Cognitifs. Pierre Perruchet, Ed. Mardaga, Brussels, 1988. 196 pp. Paper, BF 950. Psychologie et Sciences Humaines.

Basement Correlation Across the North Atlantic. Jean-Pierre Lefort. Springer-Verlag, New York, 1989. xii, 148 pp., illus., + plates. \$59. Translated from the

French by M. S. N. Carpenter.

Cathedrals of Science. The Development of Colonial Natural History Museums During the Late Nineteenth Century. Susan Sheets-Pyenson. McGill-Queen's University Press, Montreal, 1988. xii, 144 pp. + plates. \$24.95.

Cell Biology of Virus Entry, Replication, and Pathogenesis. Richard W. Compans, Ari Helenius, and Michael B. A. Oldstone, Eds. Liss, New York, 1988. xx, 449 pp., illus. \$86. UCLA Symposia on Molecular and Cellular Biology, vol. 90. From a symposium, Taos, NM, Feb.-March 1988.

Dying for Work. Workers' Safety and Health in Twentieth-Century America. David Rosner and Gerald Markowitz, Eds. Indiana University Press, Bloomington, 1989. xx, 234 pp. Paper, \$10.95. Reprint, 1987 ed.

Forensic Engineering. Kenneth L. Carper, Ed. Elsevier, New York, 1989. xviii, 361 pp., illus. \$46.95.

Image Recognition by Holography. G. I. Vasilenko and L. M. Tsibul'kin. Consultants Bureau (Plenum), New York, 1989. x, 332 pp., illus. \$85. Translated from the Russian by Albin Tybulewicz.

Mental Illness and Substance Abuse. A Profile of Health and Disease in America. Wrynn Smith. Facts on File, New York, 1989. xii, 174 pp., illus. \$35.

Pesticides and Politics. The Life Cycle of a Public Issue. Christopher J. Bosso. University of Pittsburgh Press, Pittsburgh, PA, 1989. xvi, 294 pp. Paper, \$14.95. Pitt Series in Policy and Institutional Studies. Reprint, 1987 ed.

The Skin Ego. Didier Anzieu. Yale University Press, New Haven, CT, 1989. vi, 246 pp. \$30. Translated from the French edition (Paris, 1985) by Chris Turner.

Theories of Carcinogenesis. Olav Hilmar Iversen, Ed. Hemisphere, New York, 1988. xxii, 327 pp., illus. \$59.95.

Theories on Alcoholism. C. Douglas Chaudron and D. Adrian Wilkinson, Eds. Addiction Research Foundation, Toronto, 1988. xxxviii, 498 pp. Paper, \$49.50.

Theory and Application of Microbiological Assay. William Hewitt and Stephen Vincent. Academic Press, San Diego, CA, 1988. xiv, 323 pp., illus. \$45.

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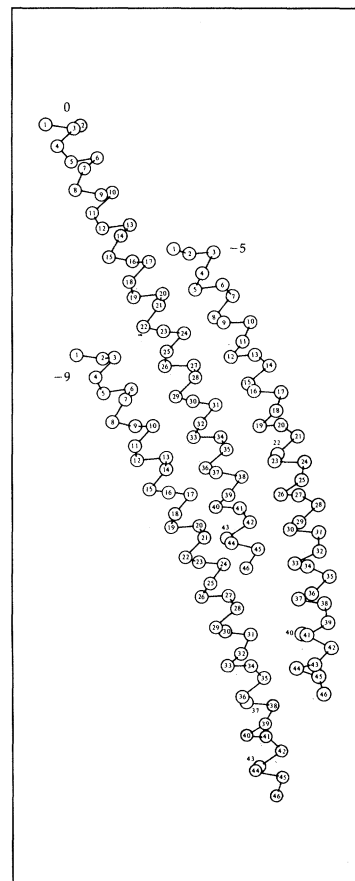
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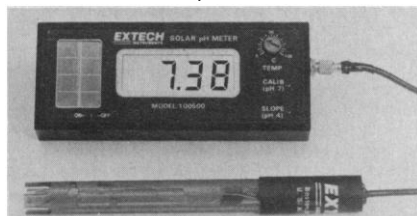
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Products & Materials

Solar-Powered pH Meter

Model 100500 is a pH meter with a precision of 0.01 pH unit that operates by solar power. Its replaceable electrode is attached by a 1-m-long cable so that it can be easily immersed. The end of the electrode has a miniature bayonet Neil-Concelman



(BNC) connector. Ordinary laboratory or outdoor lighting can power the 100500, and the power supply's power reserve lasts as long as 200 hours. The meter measures 107 by 34 by 19 mm and weighs 0.2 kg. The model 100500 features 0° to 50°C manual temperature compensation and calibration and slope functions. \$149. Extech Instruments. Circle 482.

Software for Mathematical Surfaces, Vector Fields

Fields&Operators is a software package for demonstrating visually the action of a differential operator in three dimensions. It can instantly compute and display the divergence, gradient, curl, Laplacian, or time derivatives in closed form. It also supports dot products, cross products, and integral flows. Fields&Operators can also generate and store a sequence of frames, then play them back. \$59. Lascaux Graphics. Circle 486.

Densitometry Software

Scan Analysis is a software package for densitometry analysis for gel electrophoresis, autoradiography, or thin-layer chromatography. Images are acquired by a ThunderScan scanner, MacVision, and a Quick-Capture video digitizer or gray-scale scanner. The program can integrate user-selected

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regions on polyacrylamide and agarose gels and also has an automatic peak-sensing mode. Data files may be imported directly into word processing and spreadsheet programs. Plots are stored in PICT format, which is readable by most graphics programs. Scan Analysis operates on Macintosh 512KE, Plus, SE, II, and IIX computers equipped with version 6.0 or later of the system folder. \$399. Biosoft. Circle 483.

Computer Interruption-Protection Hardware

The UniSaver 100 is a computer peripheral that automatically freezes data, program, and memory if power is interrupted. It then shuts down the computer until power returns, at which time it restores the previously executing program at the precise point at which it was interrupted. The UniSaver 100 accomplishes this by transferring conventional memory into nonvolatile random-access memory (RAM) and transferring expanded or extended memory onto the hard disk. An internal battery holds the information in RAM for at least a week. Then, when power is restored, the system transfers everything thus saved back to computer memory. No data are lost. The peripheral is especially appropriate for long-duration calculations in which loss of data would be very inconvenient or disastrous. The UniSaver 100 operates on the IBM PC family, PS/2 model 25, PS/2 model 30, and compatible computers. \$1195. Universal Vectors. Circle 478.

IgG Purification Kit

MABTrap G purifies monoclonal and polyclonal immunoglobulin G (IgG) from ascites fluid, serum, and cell culture supernatants in one step. The kit comes with the buffers already prepared and the disposable column already packed. The packing binds only IgG and its subclasses, separating out albumin and immunoglobulins A, M, and D. The MABTrap G kit contains enough materials to perform at least 20 purifications. Pharmacia LKB Biotechnology. Circle 480.

Desktop RISC Workstation

The SPARCstation 1 is a RISC (reduced instruction set computing)-based supercomputing UNIX workstation that operates at 20 MHz and is smaller than an IBM PC. Its floating point coprocessor performs approximately 1.4 million floating-point oper-

ations per second (MFLOPS), double-precision Linpack. Also, the workstation can draw 400,000 two-dimensional vectors or 175,000 three-dimensional vectors per second. Yet, the system draws only as much power as a lightbulb does. The system features an IBM-compatible 3.5-inch floppy disk drive, built-in digital audio capability, DOS software emulation, preloaded operating system, two serial ports, and two ports for Ethernet and SCSI-II peripherals. Because the workstation is binary compatible with all Sun-4 products, the more than 500 software programs available for the Sun-4 also operate on the SPARCstation 1. From \$8995. Sun Microsystems. Circle 479.

Literature

Glass Biocatalyst Carrier Biomat is a data-sheet about a glass-mat biocatalyst carrier for eukaryotic cell culture applications. Manville BioChem Products and Services. Circle 493.

XRF News is a semi-annual newsletter of x-ray fluorescence applications and instruments. Kevex Instruments. Circle 494.

SterilGARD Class II, Type A/B3 is a brochure about a laminar-flow biological safety cabinet. Baker. Circle 495.

Portables is a catalog of small pH meters, dataloggers, conductivity meters, oxygen meters, calculators, and labware. Markson. Circle 496.

STN Mentor: STN Overview is a computer tutorial for searching the STN database with a Macintosh computer. Chemical Abstracts Service. Circle 497.

Downstream Processing of Biomaterials with Centrifugal Partition Chromatography is a report that describes methodologies for separating, isolating, and purifying products of genetic engineering and biotechnology. Sanki Laboratories. Circle 498.

SEPA CF Membrane Cell is a product bulletin about a laboratory-scale cross-flow membrane filtration unit. Osmonics. Circle 499.

SIL-9A Auto Injector is a 10-page brochure about a stand-alone automation system for high-performance liquid chromatographs. Shimadzu Scientific Instruments. Circle 500.

Cell Culture Media Filtration is a brochure featuring filters and devices for prefiltration and sterilization of cell culture media, vacuum line protection, and bioreactor venting for the prevention of airborne contamination. Gelman Sciences. Circle 502.

Living HPLC Catalogue features polymer-based high-performance liquid chromatography (HPLC) columns. Hamilton Bonaduz (Switzerland). Circle 503.

Personnel Placement

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

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Aquatic Ecologist, Ph.D. seeks a cooperative or employee-owned consulting/research organization. Over 10 years of experience in applied environmental science. Skilled in writing, statistics, program management, technical supervision, chemistry, and taxonomy. Box 90, **SCIENCE**.

Free-Lance Computer Programmer for research laboratories. Reasonable rates. Prefer C on a PC in New York Metro area. Background in neuroscience and behavioral pharmacology. Pat O'Connor, 1649 Springfield Avenue, Maplewood, NJ 07040.

M.D., early retired (age 55) from drug industry seeks part-time or projects; excellent at data interpretation and medical writing for NDAs, etc. Telephone: 215-794-5581 or Box 86, **SCIENCE**.

POSITIONS WANTED

Mass Spectroscopist, Ph.D. Broad and productive research experience applying mass spectrometry in the chemical and biological sciences. Many publications. Excellent writing and interpersonal skills. Experienced in all aspects of NIH grant processes. Seeks interdisciplinary opportunity at the mid to senior professional level in academia, government, or private sector. Box 81, **SCIENCE**.

Ph.D. Cell Biology. Experience: HIV-assay; EBNA-assay; in vitro tumorigenicity; isozyme electrophoresis; karyology (chromosome bandings); cell culture; electron microscopy; histology; cytochemistry; autoradiography; micronucleus assay; spermhead anomaly assay; research grant proposal writing; and teaching. Publications, industry/government. Box 91, **SCIENCE**.

Reproductive Physiologist/Endocrinologist, Ph.D. Seeks position in academia or industry. Research training in reproductive physiology and reproductive endocrinology. Postdoctoral training in reproductive physiology/animal science. Research interests in ovarian physiology. Laboratory experience in radioimmunoassays, receptor assays, tissue and embryo cultures, human in vitro fertilization, and andrology. Excellent teacher and researcher. Box 88, **SCIENCE**.

Systematic Entomologist, Ph.D. 1982. Smithsonian Institution Postdoctoral Fellow 1982-1983. Research associate, Smithsonian-funded project on Indian Cicadellidae 1984-1986. Research experience in Syrphidae, Coccinellidae, other Diptera and Coleoptera. Fifty publications. Editor and publisher of international entomology journal since 1981. Extensive private collection of Indian insects. Seeks research/curatorial position in museum or university. Box 82, **SCIENCE**.

Toxicologist, Ph.D., Board-certified with 10-plus years of industrial experience seeks position in California: chemical, consumer product, pharmaceutical, and hazardous waste site experience. Box 71, **SCIENCE**.

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ASSISTANT LAB DIRECTOR

The Genetics and IVF Institute invites applications for permanent position with reproductive cryopreservation laboratory. Applicants should have B.S. or M.S. and experience in semen or embryo cryopreservation, artificial insemination, embryo transfer, or IVF procedures. Salary commensurate with experience and education. Send résumé to: **Dr. Edward F. Fugger, Genetics and IVF Institute, 3020 Javier Road, Fairfax, VA 22031.**

ASSISTANT PROFESSOR ENVIRONMENTAL STUDIES. Head of department. Ph.D. preferred, tenure-track, beginning fall 1989. Generalist in interdisciplinary environmental studies/environmental science. Salary competitive. Liberal arts college for women near Blue Ridge Mountains. Send résumé and three references to: **Dean A. Robin Bowers, Sweet Briar College, Sweet Briar, VA 24595.** Consideration of applications will begin 1 July 1989. *Affirmative Action/Equal Opportunity Employer.*

Purdue University, School of Agriculture, Department of Botany and Plant Pathology: **ASSISTANT PROFESSOR—SOYBEAN PATHOLOGIST** position available: tenure-track, 12 months, 70% research, 30% teaching. Research duties: development of a plant pathology program in soybean diseases possibly in the area of epidemiology, the basis of disease resistance, disease physiology, or integrated crop management. In addition, attention must be given to immediate soybean disease problems in Indiana. Teaching duties: Contribution to the teaching program of the department and supervision of graduate student research. Closing date is 1 August 1989 or until a suitable candidate is found. Applicants must hold a Ph.D. in plant pathology or related area. Applicants should send curriculum vitae, a list of publications, copies of published articles, original transcripts, evidence of teaching ability, the names of five references, and a statement of research and teaching goals to: **Dr. R. C. Coolbaugh, Botany and Plant Pathology, Lilly Hall, Purdue University, West Lafayette, IN 47907. Telephone: 317-494-4615.** *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

Harvard University: The Department of Psychology anticipates making three and possibly four **ASSISTANT PROFESSOR** appointments (initially for a 5-year term) in any area of psychology, but particularly in personality and social psychology. Applicants with interest and experience in the teaching of introductory psychology will be at an advantage. Applications should include a current curriculum vitae and the names of three referees who are familiar with your work. Please send applications and direct your referees to write directly to: **Jerome Kagan, Chairman, Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138.** The closing date is 1 November 1989. *Applications from women and minorities are especially welcome. Harvard University is an Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR

Nine-month, tenure-track position in human ecology. Ph.D. required in one of the following areas: Human nutrition, nutritional biochemistry, dietetics or closely related field. Qualifications should include registration by the American Dietetic Association or registration eligible, demonstrated ability for scholarly research, and successful experience teaching and undergraduate level courses. Responsibilities include teaching courses in advanced nutrition, nutritional biochemistry, and developing continuing education programs for area dietitians. Potential for developing an active research program and research/grant proposals must be evident. Additional responsibilities include academic advising and participation in departmental, college, and university activities. Screening will begin 15 September 1989 and will continue until position is filled. Qualified individuals should submit letter of application, curriculum vitae, three current letters of recommendation and official transcripts to: **Professor Julie Palmert, RD, LD, Department of Human Ecology, University of Dayton, Dayton, OH 45469.**

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ASSISTANT/ASSOCIATE PROFESSOR CELL BIOLOGY OR NEUROBIOLOGY

The Department of Cell Biology and Anatomy, University of Health Sciences/The Chicago Medical School, has two tenure-track faculty positions available at the assistant or associate professor level. Applicants should have a demonstrated ability to maintain a rigorous research program. Preference will be given to candidates with research interests that complement existing strengths of the department, including membrane transport, signal transduction, intracellular protein processing and transport, cytoskeleton, extracellular matrix, sensory neurobiology, brain metabolism, neuroendocrine mechanisms, and molecular neurobiology. Teaching responsibilities will include participation in cell biology, histology, neuroscience, or gross anatomy. Send letter of application with curriculum vitae, description of research, and the names of three references, to: **David McCandless, Ph.D., Department of Cell Biology and Anatomy, University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.**

DEPARTMENT OF ANATOMY

The Department of Anatomy at the Northeastern Ohio Universities College of Medicine invites applications for a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Preference will be given to applicants whose research is at the cellular level, particularly in the areas of muscle biology or neuroendocrinology. Teaching responsibilities are in gross anatomy. The successful candidate should have: (i) a strong commitment to research, (ii) publications, (iii) a demonstrable potential for, or a proven record of extramural funding, and (iv) teaching experience in gross anatomy. The Department is well-equipped and there is excellent administrative support for research. Send curriculum vitae, bibliography, statement of teaching and research goals, research funding (past and present) and the names of at least three references no later than 31 July 1989 to: **Norman Taslitz, Ph.D., c/o The Office of Human Resources, Northeastern Ohio Universities College of Medicine, Rootstown, OH 44272.**

An Equal Opportunity Employer.

POSITIONS OPEN

The Department of Microbiology, Biochemistry and Molecular Biology, University of Pittsburgh School of Medicine, invites applications for several tenure-track **ASSISTANT OR ASSOCIATE PROFESSOR** positions. In 1990, the department will move into 38,000 square feet of a new Basic Biomedical Research Building. Over the next 3 years, eight to ten new faculty will be recruited. All positions will require a teaching commitment in our medical school biochemistry or microbiology courses and participation in a combined graduate program. New laboratory facilities, start-up funds and access to a full complement of modern core facilities will be available. Candidates must have a Ph.D. or M.D. degree with postdoctoral experience and a demonstrated ability to develop an independent and productive research program. Individuals with research interests in molecular pathogenesis, virology, immunology, gene expression and oncogene biology, protein structure and design, and developmental biology to include gene transfer techniques are especially encouraged to apply. Send curriculum vitae, a statement of research interests, and the names of three references to:

Dr. Joseph C. Glorioso, Chairman
University of Pittsburgh School of Medicine
Department of Microbiology, Biochemistry
and Molecular Biology
718C Scaife Hall
Pittsburgh, PA 15261

U.S. DEPARTMENT OF ENERGY ASSOCIATE DIRECTOR FOR HEALTH AND ENVIRONMENTAL RESEARCH OFFICE OF ENERGY RESEARCH

The Department of Energy (DOE) is seeking applicants for the Senior Executive Service position of Associate Director for Health and Environmental Research. This executive plans/manages a broad research program conducted primarily at national laboratories and universities to determine the health and environmental consequences and medical applications of energy activities. The program includes: biological and epidemiological research to quantify human health risks of exposures to radiation and chemicals; environmental sciences research to determine how such agents move through and affect the atmosphere, oceans, and terrestrial ecosystems including CO₂; research to study effect of greenhouse gases on climate/vegetation; measurement/dosimetry research to improve radiation, chemical, and biological instrumentation; fundamental life science research, with special emphasis on molecular biology, to conduct human genome studies and structural biology investigations; and nuclear medicine research to develop new approaches for improved study, diagnosis and treatment of human diseases.

The preferred candidate will be a U.S. citizen with an M.D. or Ph.D. degree in an appropriate biological science. He/she will have experience in managing, evaluating, and directing diverse basic/applied research programs in biomedical sciences; and experience in scientific program and policy development. Salary range: \$68,700 to \$78,600. Position location: DOE facility, Germantown, Maryland.

Direct inquiries to and obtain application materials from: **Ms. Rosalee Williams, MA-504.1; Office of Personnel, U.S. DOE, 1000 Independence Avenue, SW, Washington, DC 20585**, or call: **202-586-8461**. Completed applications must be postmarked no later than 7 July 1989.

U.S. DOE is an Equal Opportunity Employer.

University of Hawaii seeks **BIOLOGICAL OCEANOGRAPHER** for School of Ocean and Earth Science and Technology. Assistant/associate professor or professor, full-time, tenure-track. Specialty: Phytoplankton ecology, emphasizing bio-optical or stable isotope technique, or fisheries oceanography, emphasizing larval recruitment. Duties: Teach graduate courses, conduct research, and serve as academic advisor. Minimum qualifications: Ph.D. in oceanography, biology, or related disciplines, with established record of quality research. Minimum salaries: assistant professor—\$42,240; associate professor—\$47,250; professor—\$57,804. Application should include curriculum vitae, statement of research and teaching interests, several representative publications, and three references. Send to: **Dr. Michael Landry, Department of Oceanography, University of Hawaii, 1000 Pope Road, Honolulu, HI 96822**. Closing date is 31 July 1989. *The University is an Equal Opportunity Employer.*

POSITIONS OPEN

ASSOCIATE RESEARCH PHYSIOLOGIST. Perform laboratory research pertaining to the physiology of the proximal tubule with the goal of understanding the functions of the proximal tubule and its role in the regulation of body salt and water content and acid-base composition. Perform the following techniques and procedures: (i) in vivo microperfusion of the S₁ and S₂ proximal tubule of the Munich-Wistar rat; (ii) in vivo free-flow sequential micropuncture of the entire proximal convoluted tubule of the Munich-Wistar rat; (iii) microanalysis of nanoliter samples; (iv) radioreceptor assay of microdissected S₁ and S₂ proximal convoluted tubules in vitro; (v) cell culture and intracellular pH measurements of S₁ and S₂ proximal convoluted tubule cells. Ph.D. in physiology and strong research background in laboratory investigation of proximal tubule physiology utilizing microperfusion, micropuncture, microinjection, microdissection, microcalorimetry (picapnotherm), and microtitrimetry methods and techniques required; \$46,620 per year. Send résumé to: **Martin G. Cogan, M.D., Nephrology Section (111J), Veterans Administration Medical Center, 4150 Clement Street, San Francisco, CA 94121. Equal Opportunity Employer.**

TRUDEAU INSTITUTE, INC. BASIC RESEARCH SCIENTISTS

The Trudeau Institute is always interested in receiving applications for tenure-track, full-time research staff positions from appropriately trained individuals. Appointments may be made at the assistant, associate, or full member (professor) levels, depending on scientific ability and past performance. Successful applicants will be expected to develop independent research programs in immunology, immunopathology, molecular immunology, or related fields.

The Trudeau Institute is a free-standing, not-for-profit, basic research institute with modern facilities, up-to-date equipment, in-house animal production, efficient management, and an international reputation for excellence. Current staff interests include: cancer immunology, transplantation immunology, immunity to infectious and parasitic diseases, regulation of immune responses, and the production and function of cytokines. Adequate start-up funding for new projects is available from institute resources. Salaries and benefits are competitive, and working conditions are conducive to a productive career in research.

Applications consisting of curriculum vitae, the names and addresses of three references, and a brief description of research interests, should be addressed to:

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

BIOLOGIST/BOTANIST/ENVIRONMENTALIST: Full or part-time, August 1989. Introductory biology, botany, ecology, environmental topics, field studies, senior research. Excellent teaching essential. Curriculum vitae, letters of recommendation to: **Dr. Henry J. Lindborg, Vice President for Academic Affairs, Marian College, 45 South National Avenue, Fond du Lac, WI 54935**. Immediate response requested.

Affirmative Action/Equal Opportunity Employer/Educator.

BIOMEDICAL ENGINEER IN EYE RESEARCH: Available immediately in Biochemistry and Cell Biology Unit. Required: Ph.D. in biochemistry, pharmacology, or physiology and minimum of 2 years of postdoctoral experience in eye research and related areas, with emphasis on hyaluronic acid. Also, demonstrated expertise in the toxicology and the biophysics of hyaluronic acid, as evidenced in research and/or publications. This position involves research work to be carried out in the biochemistry and biophysics of retinal and vitreous disorders as follows: (i) the problems of vitreous/retinal disorders will be analyzed; (ii) research protocol will be developed; (iii) suitable analytical methods will be selected; and (iv) the data will be analyzed and compiled. Thirty-seven hours per week. Salary: \$34,623. Résumé/cover letter to:

**Massachusetts Department of Employment
and Training
Special Programs Department
19 Staniford Street
Boston, MA 02114
Refer to Case #9646**

POSITIONS OPEN

BIOCHEMIST/RESEARCH ASSOCIATE. The Division of Cardiothoracic Surgery at Albert Einstein Medical Center seeks an individual with a proven background in protein chemistry. The individual should be proficient in cell culture, and subsequent separation and analysis of protein fractions by SDS-PAGE or other chromatographic routines. Knowledge of cardiac physiology is considered an asset. The candidate should possess excellent oral and written communication skills. A Ph.D. with 2 to 3 years of experience is a minimum requirement. Salary depending on experience. Please send curriculum vitae and the names and addresses of three references to:

John Bell-Thomson, M.D.
Chairman, Cardiothoracic Surgery
Albert Einstein Medical Center
York and Tabor Roads
Philadelphia, PA 19141

CHAIR DEPARTMENT OF HORTICULTURE AND LANDSCAPE ARCHITECTURE

The University of Kentucky invites applications and nominations for Chair of a comprehensive department offering undergraduate, graduate, and professional degrees and conducting research and extension programs in horticulture and supporting plant sciences and in landscape architecture. Applicants should hold the degree of Ph.D. in horticulture or a related discipline, or Master of Landscape Architecture; have a national reputation for scholarly achievement; demonstrate leadership and administrative abilities. Salary is open and competitive. Screening of applications through 1 September 1989 or until a suitable candidate is found. Send applications (letter, curriculum vitae, list of three references) or nominations to: **Dr. B. A. Thielges, Chair of Search Committee, 205 T.P. Cooper Building, University of Kentucky, Lexington, KY 40546-0073. The University of Kentucky is an Equal Opportunity Employer.**

DIRECTOR, CENTER FOR LAKE SUPERIOR ENVIRONMENTAL STUDIES, University of Wisconsin-Superior. Directorship available 1 September 1989. Seeking individual with environmental research background and solid record of grantsmanship. Candidate should have a Ph.D. degree, administrative experience and familiarity with undergraduate research. Will manage a staff of 40 and actively participate in the growth of extramural funding. May teach one class per year. Submit résumé and three letters of reference by 1 August 1989 to: **Dr. Daniel Call, CLSES, University of Wisconsin-Superior, Superior, WI 54880. Telephone: 715-394-8315. An Equal Opportunity/Affirmative Action Employer.**

ELECTRON MICROSCOPY TECHNICIAN to supervise a service laboratory. Duties include operation and specimen preparation for TEM and SEM, training programs. Experience with TEM and SEM required; computer-assisted image analysis experience desired. Current instruments include Philips 300, JEM 1200 EXII, and Hitachi S-570LAB6. Salary \$22,000 to \$30,000. Submit résumé and three references to: **Dr. William Dentler, 4002 Haworth, University of Kansas, Lawrence, KS 66045. Deadline 1 August 1989. An Equal Employment Opportunity/Affirmative Action Employer.**

FACULTY POSITION IN MOLECULAR VIROLOGY

Applications are being sought for a tenure-track position in virology at the Fox Chase Cancer Center. The Cancer Center currently has active research programs in the molecular biology and epidemiology of hepadnaviruses and hepatocellular carcinoma, as well as the development of antiviral therapies. The successful applicant will have a Ph.D. or equivalent training and will be expected to secure independent funding to pursue basic studies with hepadna or other cancer-associated viruses at the molecular and cellular levels. Start-up funds are available. The Fox Chase Cancer Center provides outstanding shared facilities to enhance research, as well as many opportunities for both multi- and interdisciplinary growth. Please send curriculum vitae, outline of future research plans, and the names of three individuals who could provide letters of recommendation to: **Dr. W. T. L., c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

Science Writer

Oncogene Science, Inc., a biotechnology company located on the North Shore of Long Island, is expanding its discovery research programs in the application of oncogene technology to diagnostic and therapeutic product development.

We are currently seeking qualified candidates for the position of SCIENCE WRITER who will be responsible for the writing of grants, patent applications and project planning reports.

Qualified candidates will have a Ph.D. in the biological sciences and proven writing skills.

Oncogene Science, Inc. offers an excellent compensation and benefits package. For consideration, please send your resume including references and salary history to: **Personnel Administrator, Oncogene Science, Inc., 350 Community Drive, Manhasset, NY 11030.** An Equal Opportunity Employer.

**Oncogene
Science** 

ST. JOHN'S UNIVERSITY New York

Department of Biological Sciences

Postdoctoral Research Associate — A position is available immediately to study signal transduction in *Aspergillus nidulans*. The research will involve cloning and disruption of the gene for a calmodulin-dependent protein kinase (Proc. Nat. Acad. Sci. 85, 3279). Experience in molecular and microbiological research is desirable. Salary and benefits are competitive. Please send a curriculum vitae and names of three references to: **Dr. Diana Bartelt, Department of Biological Sciences, St. John's University, Grand Central & Utopia Parkways, Jamaica, NY 11439.** St. John's University is an equal opportunity employer — M/F.

INSTITUTE OF NATURAL RESOURCES AND ENVIRONMENT
DIVISION OF ATMOSPHERIC RESEARCH, MELBOURNE, AUSTRALIA
CLIMATE CHANGE RESEARCH PROGRAM (Greenhouse Research)

RESEARCH SCIENTISTS/SENIOR RESEARCH SCIENTISTS OR PRINCIPAL RESEARCH SCIENTISTS/SENIOR PRINCIPAL RESEARCH SCIENTISTS

(CLIMATE DYNAMICS, OCEAN MODELLING, APPLIED
CLIMATOLOGY,
ATMOSPHERIC CHEMISTRY)

\$A32,045 TO \$A62,396 PER ANNUM

The Australian Government has recently made available funds for an enhanced research effort designed to substantially improve climate change forecasting in the Australian region. The research effort is comprehensive, with a core activity involving the development of an Australian Climate Model by the CSIRO Division of Atmospheric Research and the Australian Bureau of Meteorology.

THE DIVISION: The Division of Atmospheric Research has a staff of 120 including 70 professional scientists and undertakes research into physical, chemical and dynamic aspects of atmospheric phenomena and related areas.

THE PROGRAM: The Division of Atmospheric Research has an existing commitment to the study of climate change, with special emphasis on the greenhouse effect. Applications are called for a number of positions to join that team in a major research effort aimed at the development of the BMRC general circulation model for regional climate-change forecasting. The central model development is to be strongly integrated into a CSIRO Institute-wide program involving scientists from other Divisions of the Institute of Natural Resources and Environment (Fisheries, Environmental Mechanics, Oceanography, Water Resources, and Wildlife and Ecology), as well as with the Division's activities in trace gas studies, drought research and climate-change assessment.

DYNAMICAL METEOROLOGIST (NUMERICAL MODELLER)

THREE POSITIONS - NOS. AT8901,
AT8902, AT8903

To undertake research into 1) Global Atmospheric General Circulation Models and cloud and/or radiation schemes, 2) Limited Area Atmospheric Circulation Models, and 3) Global Atmospheric General Circulation Models and aspects of tropical meteorology convective adjustment and the hydrological cycle.

DYNAMICAL OCEANOGRAPHER (NUMERICAL MODELLER)

TWO POSITIONS - NOS. AT8904,
AT8905

To undertake research into the development of oceanic models and/or the coupling of existing atmospheric and oceanic models.

APPLIED CLIMATOLOGIST

POSITION NO. AT8906

To undertake research into the assessment

of regional climate change primarily from results of general circulation models, but with consideration of past climatological data. Interaction with both users of climate-change predictions and modellers to improve the utility of modelling results will be a feature of the position.

ATMOSPHERIC CHEMIST POSITION NO. AT8907

To undertake research and development of techniques for the measurement of trace gases in the atmosphere. This will include oversight of a major laboratory upgrade and will involve research on surface properties leading to improved gas storage containers, and analysis of contemporary and historic air samples and scientific interpretation of the results.

Applicants should possess a Ph.D degree or equivalent in the physical sciences, meteorology, or the atmospheric sciences, and preferably some experience appropriate to the particular positions available.

Conditions: Appointment will be indefinite or fixed term depending on the mutual agreement of the applicant and CSIRO. Australian Government superannuation benefits will be available.

MORE INFORMATION: Prospective applicants are invited to contact the INRE Climate Change Program Coordinator, Dr Graeme Pearman on (03) 586 7650 (Int. +61 3), Fax (03) 586 7600 (Int. +61 3), Telex AA34463, or Omnet G. Pearman, who can provide further details of the program, copy of relevant duty statements and selection criteria.

APPLICATIONS: Applications should be related to the selection criteria. They should provide details of relevant qualifications and experience and also nominate at least two professional referees. Applications quoting the relevant reference number should be submitted by 30 June, 1989, to:

The Chief
CSIRO Division of Atmospheric Research
Private Bag No. 1
Mordialloc. Vic. 3195.

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER



AUSTRALIA

AT 89/14

Junior Biologist

Transgenic Research

Greenford, England

Following the creation of a new Transgenic Research laboratory at Glaxo Group Research, we now have a vacancy for a Junior Biologist.

Working as part of a team of young and committed scientists, you will be maintaining and characterising embryonic stem (ES) cell lines, as well as assisting with microinjection procedures and associated recombinant DNA techniques. You will have the opportunity to use the latest state-of-the-art equipment, and work at the forefront of this exciting new technology.

In addition to possessing good basic qualifications in Biology (to 'A' or HNC level), previous experience in the maintenance of cell lines would also be useful.

In return, depending on your experience, you will receive a salary in the range of £8.5K-£13K inclusive of guaranteed bonuses and Outer London allowance, as well as other benefits such as 25 days' holiday, flexible working hours, subsidised restaurant and a thriving sports and social club. You will also have the opportunity to study for further qualifications.

Please send a full c.v. or telephone for an application form to, Fiona David, Personnel Officer, Glaxo Group Research, Greenford Road, Greenford, Middx. UB6 0HE, England. Telephone 01-422 3434 ext. 2934, quoting reference no. G89087.

Glaxo Group Research



Research in Molecular Plant Pathology at The University of California-Berkeley & The USDA Plant Gene Expression Center

Barbara Baker
Transposon Insertional Mutagenesis in
Tomato and Arabidopsis

Lynn Epstein
Physiology of Fungal-Plant Interactions

Andrew Jackson
Molecular Genetics of RNA Plant Viruses

Steven Lindow
Ecology of Epiphytic Ice Nucleating
Bacteria

Sheila McCormick
Molecular Genetics of Pollen Development

Jack Morris
Molecular Biology of Plant-Viral
Interactions

David Ow
Molecular Biology of Plant Stress

Nickolas Panopoulos
Molecular Genetics of Phytopathogenic
Bacteria

Brian Staskawicz
Molecular Genetics of Plant-Bacterial
Interactions

A McKnight Foundation

program of interdisciplinary research in molecular plant pathology is announced. Pre-doctoral and post-doctoral training in Molecular Genetics of Plant-Pathogen Interactions will be available July 1, 1989. Trainees will participate in projects involving staff in the Department of Plant Pathology and at the nearby Plant Gene Expression Center. Projects will address the basic molecular mechanisms involved in the interactions between bacterial, fungal and viral pathogens and their respective hosts.

Ph D applicants for postdoctoral positions with research experience in plant biology, molecular biology, biochemistry and/or physiology may apply by sending a statement of research interest, curriculum vitae and names of three referees. Salary range is from \$24,000 depending on experience. Appointments are for a minimum of two years.

Applicants to the Graduate Program should contact the Department of Plant Pathology for application materials. Acceptance into the program will be contingent upon meeting the admission requirements of the University Graduate Division.

Application materials and enquiries can be obtained by calling or writing:



Ms. Eileen Bell
Graduate Student Administrator
Department of Plant Pathology
University of California
Berkeley, CA, 94720
Tel: 415-642-5121
Fax: 415-642-4612

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

FACULTY POSITION

Chairman, Department of Comparative and Experimental Pathology. The University of Florida, College of Veterinary Medicine, under the new leadership of Dean R.E. Dierks, invites applications and nominations for a tenure-track position at the level of Chairman. Letters of application or nomination should include a curriculum vitae outlining citizenship, academic training, teaching and practice experience and present professional activities. Also needed are a list of publications, a statement of professional goals, and the names of three persons who can provide letters of reference. Salary will be commensurate with training and experience (and academic rank) of the successful applicant.

The mission of the department is to acquire and disseminate knowledge in the areas of veterinary and experimental pathology and immunology. It has three principal means with which to accomplish its mission: teaching, research and an academically oriented Anatomic Pathology service. Faculty members participate in the Graduate Program in the College of Veterinary Medicine and share a Graduate Program in Experimental Pathology and Immunology with the Department of Pathology in the College of Medicine. Current research interests include bone and nutritional pathology, molecular mechanisms of disease and host defense, and pathobiology of muscular diseases.

As one of six colleges in the University's Health Sciences Center, the College of Veterinary Medicine provides excellent opportunities for collaborative programs in many aspects of biomedical research, and through its affiliation with the University's Institute of Food and Agricultural Sciences it fosters interests in food animal medicine and tropical diseases.

Qualifications for the position include a DVM degree (or equivalent); a doctoral degree in biomedical sciences; an established record of excellence in research; a commitment to excellence in veterinary and graduate training; and a commitment to academic service programs. Board certification in pathology is desired, but not required. Applicants or nominees should be eligible for appointment to Full Professor and membership in the Doctoral Faculty of the University of Florida. Detailed position description is available upon request. Application deadline is 15 of August, 1989. Position No. VM-8821. Dr. Emerson Besch, Search Committee Chairperson, College of Veterinary Medicine, University of Florida, Box J-137, JHMHC, Gainesville, FL 32610-0125. The University of Florida is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS IN THE MOLECULAR PHARMACOLOGY OF CANCER

The Department of Pharmacology and the Lineberger Cancer Research Center of the University of North Carolina at Chapel Hill are seeking to recruit one or more outstanding individuals in the area of basic research related to cancer. Tenure track faculty positions will be available as of January 1990; rank will be commensurate with ability and experience.

Preference will be given to individuals with demonstrated competence in applying modern techniques of molecular biology, biochemistry or biophysics to fundamental problems in cancer pharmacology. Potential areas of interest would include, but not be limited to the following: regulation of gene expression by oncogenes or growth factors; molecular bases of drug resistance; mechanisms of action of anticancer drugs; molecular modeling of drug-receptor interactions.

Successful candidates will be expected to establish well-funded independent research programs, to participate in the graduate and professional educational activities of the Department, and to interact closely with members of the Lineberger Cancer Research Center.

Applicants should send a curriculum vitae, a statement of research plans and the names of three referees to:

R. L. Jullano, Ph.D.
Professor and Chairman
Department of Pharmacology
CB #7365-S, 1106 Fac. Lab Office Bldg.
The University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7365

Women and minority candidates are encouraged to identify themselves. Candidates are urged to apply prior to September 1, 1989. The University of North Carolina at Chapel Hill is an equal opportunity/affirmative action employer.

**FELLOW/SENIOR FELLOW IN
NONLINEAR OPTICS,
RESEARCH SCHOOL OF PHYSICAL SCIENCES
THE AUSTRALIAN NATIONAL UNIVERSITY**

The Optical Sciences Centre (Head: Professor A.W. Snyder FAA, FTS) is seeking to appoint an outstanding research scientist in the field of nonlinear optical waveguides with an interest in chaotic phenomena. The Centre works at the forefront of theoretical research in optical waveguide devices as well as in visual information processing by humans and machines. As the Centre is presently collaborating with the Laser Physics Centre (Head: Dr B. Luther-Davies) in the establishment of a nonlinear optical waveguide laboratory, an exceptional opportunity exists for a joint appointment for an applicant with a strong theoretical background plus an ability in experimental research. Enquiries may be directed to: Professor A.W. Snyder (062) 492430 or to Dr.B. Luther-Davies (062) 494244. Closing date: 30 September 1989. Ref: PS 11.5.1. SALARY: Senior Fellow; A\$47,564 -A\$55,292 p.a.; Fellow; A\$35,683 -A\$47,503 p.a. APPOINTMENT: Fellow/Senior Fellow, tenurable. APPLICATIONS should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra ACT 2601, Australia, quoting reference number and including curriculum vitae, list of publications and names of at least three referees. The University reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

THE UNIVERSITY IS AN
EQUAL OPPORTUNITY EMPLOYER

Research Scientists

IDEON CORPORATION, a biotechnology research and development company located in Redwood City, CA, is growing and is looking to fill several positions at different levels. IDEON's research focuses on the development of therapeutic products in the areas of infectious and autoimmune disease and cancer, using novel immunotherapeutics, recombinant antibodies and immunomodulators.

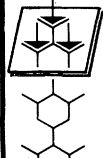
**Protein Chemistry
Group Leader**

Individual will assume overall responsibility for leading research groups involved in several aspects of protein chemistry including purification and protein engineering. In addition to a Ph.D., the successful candidate will have a minimum of five years of professional experience and accomplishment within an academic or industrial setting.

**Protein Chemists/
Molecular Biologists**

Several positions exist at the Ph.D. and B.S./M.S. level. Expertise in the protein and/or genetic engineering of immunoconjugates, antibodies and other immunoregulatory molecules is desired.

These positions with IDEON CORPORATION offer excellent salary, substantial equity participation and other benefits. An equal opportunity employer



IDEON

Please forward your resume in confidence to: IDEON CORPORATION, ATTN: R&D Department, 515 Galveston Drive, Redwood City, CA 94063.

Research Scientists

THE SQUIBB INSTITUTE FOR MEDICAL RESEARCH is recognized internationally as a leader in research and development of novel therapeutic agents for the treatment of cardiovascular and infectious diseases. We are greatly expanding the scope of our research programs and currently have several exceptional opportunities available for scientific professionals to join our Dept. of Pharmacology.

Cardiovascular Electrophysiologist

(Ph.D.)- Conceive, implement, and supervise in vivo test systems for the cardiac electrophysiological evaluation of new therapeutic agents affecting cardiac and vascular function with emphasis on conditions related to myocardial ischemia. Participate in collaborative planning with scientists involved in cardiovascular research programs. Requires a minimum 6 years of relevant research experience.

Cardiovascular Enzymologist

(Ph.D.)- Conceive, implement and supervise enzymatic and biochemical test systems for the evaluation of new therapeutic agents affecting cardiac and vascular function with emphasis on conditions related to myocardial ischemia. Participate in collaborative planning with scientists involved in cardiovascular research programs. Requires a minimum 2 years of relevant research experience.

Receptor Pharmacologist

(Ph.D.)- Implement radioligand-receptor binding assays in pharmacological systems of interest for drug discovery and development in the area of cardiovascular research. Characterize, by molecular pharmacological techniques and in collaboration with other scientists within Squibb Institute, natural products to be pursued as leads for organic synthesis. Requires a minimum 2 years of relevant research experience.

Cardio-Renal Pharmacologist / Physiologist

(Ph.D.)- Conceive and implement advanced technological procedures for measurement of in vivo cardiovascular and renal function in conscious rodents. Conduct research using the conscious rodent preparation on potential new avenues of therapeutic interventions for cardiovascular and renal diseases. Requires a minimum 2 years of relevant research experience.

Receptor Pharmacologist

(B.S./M.S.)- Perform receptor pharmacology experiments in the area of cardiovascular research. Utilize radioligand-receptor binding techniques with the goal of characterizing pharmacologic agents and their specific receptors. Requires a minimum 2 years of relevant research experience.

These positions are based in Princeton, NJ, a pleasant semi-rural community located mid-way between New York City and Philadelphia. For consideration, please send your resume to: **Human Resources Department 549, The Squibb Institute for Medical Research, P.O. Box 4000, Princeton, NJ 08543-4000.** Equal Opportunity Employer, M/F.



SQUIBB®

POSITIONS OPEN

DIRECTOR OF PEDIATRIC ENDOCRINOLOGY DEPARTMENT OF PEDIATRICS UNIVERSITY OF MINNESOTA MEDICAL SCHOOL MINNEAPOLIS, MINNESOTA

The University of Minnesota, Department of Pediatrics, is seeking a Director of the Division of Endocrinology. This is a senior position and has high priority in the Department of Pediatrics and the Medical School. The candidate should have leadership, clinical and research experiences necessary to direct an Endocrinology and Metabolism Program in a strong academically oriented department.

Qualifications: Candidate must have an M.D. degree or equivalent. This position will be a tenured/associate or full professor with the rank to be commensurate with the years of experience and accomplishments. The candidate must have demonstrated professional distinction in research and writing, have an active ongoing research program which has attracted national funding, and have demonstrated effectiveness in teaching and advising. Candidate must be approved by the Promotions Committee of the Department of Pediatrics and the Medical School.

Last date for receipt of application is 31 July 1989 with the earliest start date being 2 January 1990.

Applications and nominations (include names and addresses of three referees) should be sent to:

S. Michael Mauer, M.D.
Chairman, Search Committee for
Head of Pediatric Endocrinology and Metabolism
University of Minnesota Medical School
Box 491 UMHC
515 Delaware Street S.E.
Minneapolis, MN 55455

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

FACULTY POSITION: DIRECTOR OF OB/GYN ANAEROBIC BACTERIOLOGIC RESEARCH LABORATORY

Ph.D. microbiologist needed to establish and manage an Ob/Gyn Anaerobic Bacteriologic Research Laboratory. Requirements include the ability to use specialized culture media to identify, speciate, and determine antimicrobial sensitivities of all anaerobic organisms common to the vagina and to Ob/Gyn infections. Candidate should also have experience in research regarding the possible infectious etiology of pre-term labor and/or premature rupture of the membranes.

Salary and rank commensurate with experience.

Please send curriculum vitae to: **John C. Hauth, M.D., Professor and Director, Division of Maternal Fetal Medicine, Department of Obstetrics and Gynecology, The University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294.**

Deadline for applications: 30 September 1989.

An Affirmative Action/Equal Employment Employer.

FACULTY POSITIONS IN THE MACROMOLECULAR STRUCTURES GROUP OF THE DEPARTMENT OF BIOLOGICAL SCIENCES PURDUE UNIVERSITY

The Department of Biological Sciences invites applications for tenure-track faculty positions that would augment and complement the interests of the current eight members of the macromolecular structures group. The Department also has strong research programs in molecular and cell biology and microbiology, and is a major component of an interdisciplinary, campus-wide, biochemistry program. We are seeking an individual with an interest in molecular biology of viruses at an assistant professorial level, but qualified candidates at a more senior level are welcome to apply. Qualifications include a Ph.D. in a relevant field, at least 2 years of postdoctoral experience, and a demonstrated record of research accomplishments. Applications will be accepted until 1 October 1989 or until the position is filled. Applicants should send curriculum vitae, bibliography, names of three references, and a statement of their research interests to: **Michael G. Rossmann, Department of Biological Sciences, Purdue University, West Lafayette, IN 47907.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH SCIENTIST

Wyeth-Ayerst Laboratories, a leading pharmaceutical firm in the development and production of prescription drugs, biologicals and infant nutritionals, currently has a Research Scientist position available in our Biotechnology and Microbiology department in Radnor, PA.

This is a highly specialized position performing independent sophisticated research as well as problem solving and providing technical expertise to management and peer scientists. Specifically you will perform experimental procedures for biologicals research and development and be responsible for training in same procedures.

Our successful candidate will possess a Ph.D. with a minimum of 1 to 3 years Molecular Biology, Virology, Microbiology or Biochemistry research experience. You will enjoy working in our modern, well-equipped facilities in Philadelphia's prestigious Main Line suburban area. Besides an environment which fosters discovery, we offer a competitive salary, excellent benefits, and superior career opportunities.



Respond immediately by forwarding your CV and salary requirements, in confidence, to:
Position #39, Recruitment Manager, Wyeth-Ayerst Laboratories, Inc., P.O. Box 8299, Philadelphia, PA 19101. Equal Opportunity Employer, M/F/H/V responses encouraged.

DEAN, COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES UNIVERSITY OF CALIFORNIA, DAVIS

The University of California, Davis, invites applications and nominations for the position of Dean—College of Agricultural and Environmental Sciences and Director of Programs of the Division of Agriculture and Natural Resources (Davis). The College and Division conduct fundamental and mission-oriented teaching, research, extension, and public service relating to all aspects of agriculture, food, fiber, the environment, and human and natural resources. The College enrolls approximately 6,000 students in 41 undergraduate and 54 graduate programs. The College and the Davis unit of the Agricultural Experiment Station currently have more than 450 full-time faculty and about 2,000 other academic and nonacademic employees. There are over 1,000,000 assignable square feet of building space, 1,900 acres of land at Davis, ten off-campus field stations, and an annual budget in excess of \$85,000,000.

The responsibilities of the Dean are to provide leadership in developing and maintaining high quality programs of instruction, research, extension, and public service; to develop and implement policy for the College; to represent the College, Experiment Station, and Cooperative Extension to the Campus and University Administration, government, and the general public; to manage resources of the College; to serve on agricultural boards and panels; and to participate in the development of state and national policy.

We seek candidates with a deep commitment to academic excellence who can lead the College in its continuing development. Qualifications include a distinguished record of research, teaching, and professional service; demonstrated ability for creative leadership and management; and the energy and vigor necessary to translate ideas into action. Salary will be commensurate with experience and qualifications. The starting date will be 1 July 1990, or as negotiated.

Nominations and applications are desired by 1 September 1989 and should be sent to Theodore L. Hullar, Office of the Chancellor, University of California, Davis, CA 95616. Applications should include a curriculum vitae and the names, addresses, and telephone numbers of five references. The position will remain open until filled. An Equal Opportunity Affirmative Action Employer.

Postdoctoral Research Associates



The Agricultural Research Service as the principal scientific research agency of USDA, conducts research to solve technical food and agricultural problems of broad scope and high national priority. The agency's work is carried out under six specific research objectives--conservation of national resources, crop production and protection, animal production and protection, human nutrition, postharvest research, and integration of management systems. Overall aim of ARS research is to ensure the continuation of an adequate supply of food and fiber of high quality to meet the needs of American people and for export.

ARS is currently recruiting for 100 postdoctoral positions throughout the country. Opportunities exist in many research areas, including:

- Human Nutrition
- Genetics
- Immunology
- Virology
- Biochemistry
- Chemistry
- Microbiology
- Animal Science
- Entomology
- Plant Physiology
- Plant Pathology
- Agronomy
- Soil Science
- Engineering

Successful candidates will be hired under excepted appointments up to 2 years in duration. Salary for these GS-11/12 positions (\$28,852 to \$34,580) will be based on qualifications and experience.

For written descriptions of positions and application procedures, write to:

N.L. Bakes
Personnel Division (S)
USDA/ARS/BARC-W
Bldg. 003, Room 101
Beltsville, MD 20705

or call:

Ms. Kim Carpenter
(301) 344-2796

ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

SCIENTISTS/SENIOR SCIENTISTS CELLULAR THERAPY

CELS, Inc., an exciting new biotechnology company is developing encapsulated cell and tissue transplants for treatment of human disease. Opportunities exist in our research headquarters for:

Biopolymer Scientists

You will evaluate and develop novel biocompatible polymers for the immunoprotection of cells and tissue when transplanted for treatment of human disease. Experience in biopolymer chemistry and the interaction of polymers with the human immune system required.

Biomedical Engineering

Qualified candidate will develop novel biomedical devices for the immunoprotection of cells and tissue for human transplantation. Experience in the engineering and development of relevant biomedical devices essential.

Cell Biologist and Cell Isolation Scientist

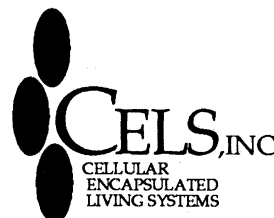
You will develop mammalian cell culturing and cell isolation technologies for therapeutic cellular transplantation. Experience in mammalian cell biology required.

Immunologist

Qualified candidate will evaluate the immunological responses to implanted polymer encapsulation devices and work with chemists and engineers to develop new products. Experience in immunology, materials and their interactions required.

Scientist positions require a PhD in the appropriate field. Senior scientist positions are available for individuals with related postdoctoral or industrial experience.

CELS, Inc., based in the Providence, RI area offers competitive salaries, excellent benefits and equity participation. For immediate consideration, please send your resume, indicating position of interest to: DSE Confidential Reply Service, Dept. 138, 651 Gateway Blvd. #850, South San Francisco, CA 94080. CELS, Inc., is an equal opportunity employer.



POSTDOCTORAL FELLOW CELL BIOLOGY

Burroughs Wellcome Co., a progressive pharmaceutical company with a top reputation for research, has a postdoctoral position available in the Division of Cell Biology with Naji Sahyoun, M.D., to study:

Ca²⁺/calmodulin-dependent protein kinases and tyrosine kinases in synaptosomes and growth cones

Work involves multidisciplinary techniques in biochemistry, immunochemistry and molecular biology. Ph.D. or M.D. with training in biochemistry/molecular biology or cell biology required. Familiarity with recombinant DNA techniques will be helpful. Candidates should have no more than two years of experience beyond the granting of their Ph.D. or M.D. degree. This Postdoctoral Fellow will initially be appointed for up to two years with renewal for a third year upon the mutual agreement of the employee and the Company.

Burroughs Wellcome Co. offers top benefits programs along with very competitive salaries. If you are interested in this postdoctoral position, submit your curriculum vitae by August 16, 1989 to: **Burroughs Wellcome Co., Scientific Recruiting and Staffing, Position #61168-4, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**



Wellcome

BURROUGHS WELLCOME CO.

An Equal Opportunity Employer

Research Associates

COR Therapeutics, Inc. is a recently established and rapidly growing biotechnology company located in South San Francisco. We specialize in the development of novel therapeutics for cardiovascular disease. We are actively recruiting highly qualified Research Associates in the following areas:

- **Peptide Biochemistry**—experience in purification and characterization of peptides from natural sources.
- **Molecular Biology**—experience in expression of native, chimeric, and mutant proteins.
- **Protein Biochemistry**—experience in purification, fractionation, and characterization of proteins.
- **Cell Culture**—experience in establishing primary cultures of human cells. Preference for experience with vascular cells and isolation of human neutrophils and monocytes.

These positions offer the opportunity to study basic mechanisms of receptor ligand interactions and to use this information to design therapeutic agents effective in the treatment of several types of cardiovascular disease. Preference will be given to individuals with prior research and/or laboratory experience. COR Therapeutics, Inc. offers competitive salaries, benefits and attractive equity positions to its employees, combined with the challenge and opportunity to make a significant contribution to this new organization. To apply, please send resume to:

Human Resources, COR Therapeutics, Inc., 256 East Grand Avenue, Suite 80, South San Francisco, CA 94080. EOE

COR Therapeutics, Inc.

Genetics Institute is a company known for its innovative approach to the scientific research, development and manufacture of human therapeutic agents, including fibrinolytic and clotting factors, bone morphogenic factors and hematopoietic growth factors. The successful application of a sound business strategy in the development of our company enhances our strength and promising future in biotechnology.

Research Associates

Several openings exist to join our Molecular and Cellular Genetics and Fibrinolysis Groups. These positions would be responsible for the characterization of cell lines. Ideal candidates will have a BS/MS in the life sciences and solid cell culture and tissue culture experience.

Molecular Immunology/ Mammalian Gene Expression

We are actively recruiting for an individual to join our discovery research group studying native and recombinant immunoglobins intended for therapeutic purposes. The ideal candidate will have a BS/MS in the life sciences and experience in mammalian cell expression, protein characterization and immunological assay development. A background in recombinant DNA is also beneficial but not a prerequisite for the position.

We offer a stimulating and dynamic work environment plus an excellent salary and comprehensive benefits package.

Interested candidates should forward a resume, in confidence, to Susan Fletcher, Genetics Institute, 87 Cambridge Park Drive, Cambridge, MA 02140.

An Equal Opportunity Employer M/F/H/V

Genetics Institute

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OPPORTUNITY AT CETUS IN PCR DIAGNOSTIC RESEARCH

Cetus Corporation and Hoffman-LaRoche have established a joint effort to develop and commercialize *in vitro* human diagnostic products and services utilizing the most important new technology in the field of diagnostics — Cetus' patented Polymerase Chain Reaction (PCR). PCR will facilitate rapid, sensitive and highly accurate diagnosis of such conditions as infectious diseases, genetic disorders and cancer.

VIRAL INFECTIOUS DISEASES

The spectrum of research will encompass the development of PCR-based assays for known viruses to determine the clinical utility of highly sensitive detection of the pathogens of interest to a search for new viruses that may play a role in diseases of suspected viral etiology. In the study of persistent viruses, the identification of prognostic markers for specific disease susceptibility (primarily cancer) progression to disease development and severity of disease are of particular interest.

GENETIC DISORDERS

The focus of the research program will be the identification of genetic variation involved in common diseases such as cancers, autoimmune and cardiovascular diseases leading to the development of diagnostic tests using PCR. The clinical significance of variations in candidate genes, like oncogenes, tumor suppressor genes or immune system related loci will be explored.

ASSOCIATE SCIENTIST/ SCIENTIST/SR. SCIENTIST

Qualifications: Ph.D and/or MD with specialty in biochemistry, biological sciences, microbiology, genetics or virology. One or more years of experience in a relevant field is essential. Excellent written and verbal communication skills are required. Experience in leading a research team is desirable for the scientist and senior scientist positions.

Preference will be given to highly creative and exceptionally productive investigators with demonstrated independent research experience with an interest in working in a collaborative environment applying PCR to the study of viral infectious diseases, genetic disorders, and cancer.

RESEARCH ASSISTANT/ RESEARCH ASSOCIATE

Qualifications: BS/MS in biological sciences or chemistry with one or more years of relevant laboratory experience involving biochemistry, genetics, microbiology or virology.

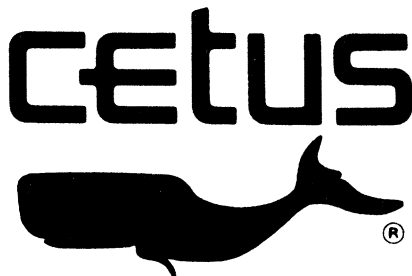
Cetus seeks several innovative research assistants and associates to join our departments of infectious diseases and human genetics. Individuals in these positions work with highly motivated scientists in a stimulating scientific research environment.

POSTDOCTORAL POSITIONS

Qualifications: Ph.D and/or MD with specialty in biochemistry, genetics, or virology. Extensive experience in molecular biological techniques in general and nucleic acids specifically is preferred. Excellent written communication skills are essential.

We expect the candidates selected for these positions to conduct independent research in the areas noted above. Additional opportunities include the study of the kinetic and enzymatic properties of thermostable polymerases. The individuals will be strongly encouraged to describe their studies for major scientific journals and at scientific meetings. Currently, a number of positions with two year appointments are available.

We offer competitive salaries commensurate with your experience and education, an outstanding benefits package and a significant opportunity for career development. If you would like to contribute to the application of PCR to diagnostic research, please send your resume to Cetus Corporation, Box JS, 1400 Fifty-Third St., Emeryville, CA 94608. We are an Equal Opportunity Employer.



POSITIONS OPEN

The College of Dentistry, University of Iowa, is presently conducting a search to fill a full-time **FACULTY POSITION** in the Dows Institute for Dental Research with major responsibilities for the Oral Soft Tissue Research Program. The position will be available 1 July 1989; screening will begin immediately. Applicants must have a Ph.D. and experience in the area of cell and tissue culture; expertise in biochemistry/molecular biology is desirable. Academic rank and salary will be commensurate with qualifications and experience. Submit curriculum vitae to: **Dr. C. A. Squier, Professor and Assistant Dean for Research and Director of Dows Institute, College of Dentistry, University of Iowa, Iowa City, IA 52242.** The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

FACULTY TERM POSITIONS in geology and physics, Eastern New Mexico University (ENMU), beginning 22 August 1989. Responsibilities for geology position: introductory and advanced undergraduate courses in mineralogy, crystallography, and petrology. Responsibilities for physics position: introductory and advanced undergraduate courses in physics. Ph.D. preferred. Send letter, résumé, transcripts, names of three references to: **Search Committee, Physical Sciences, ENMU, #33, Portales, NM 88130** by 28 July 1989. ENMU hires only U.S. citizens and aliens lawfully authorized to work in the United States and is an Affirmative Action/Equal Opportunity Employer.

INSTRUCTOR OF PSYCHIATRY (RESEARCH POSITION) to perform clinical research studies on test patients to determine biological and physiological factors that influence and cause substance abuse (specifically alcohol and cocaine). Major focus of studies is effect of abused substances on neuroendocrine and reproductive hormone function in women; specific duties include: evaluate all potential research subjects; ensure all preselection tests and questionnaires are accurate and complete and all laboratory tests are within acceptable ranges; perform complete medical examinations on all subjects who are candidates for proposed studies; conduct studies where intravenous catheterizations and administration of intravenous substances for provocative tests are involved; supervise support staff during conduct of all clinical research studies; ensure all research tests are complete and accurate; assist in planning and development of research projects as well as carrying out independent research projects; interpret results of all research tests and supervise analysis of data; participate in preparation of scientific publications, presentations, and reports. Candidate must possess M.D. in medicine. Must also possess certification of Massachusetts Board of Registration in Medicine; expertise in endocrinology; expertise in performance of computer-aided data analysis. Salary: \$33,000 per year for 5-day, 40+-hour work week. Résumés only to: **Massachusetts DET, CF Hurley Building, 19 Staniford Street, Boston, MA 02114.** Job Order #9908. Equal Opportunity Employer.

KINESIOLOGY/HUMAN MOVEMENT SCIENCE. The Rehabilitation Research and Development Center at Edward Hines Jr. Veterans Affairs Hospital has an immediate opening for a person with interests and skills in the area of human motor behavior.

Candidates must have a thorough knowledge of kinesiology and human motor control, and a proven track record of funding in these areas. Prior experience in the application of nonlinear dynamical systems theory to human motor behavior is desirable. Familiarity with the use of motion analysis equipment and computer programming (C and Fortran) would also be helpful.

The successful candidate will be expected to develop a strong research program in the control of human locomotion. The primary focus of this program will be studies on the use of optical and non-optical information in the control of locomotion and the application of the theory of nonlinear dynamical systems to the study of human movement coordination.

The salary range for this position is \$34,580 to \$48,592 per year, depending on qualifications. The initial appointment will be for a period of 3 years with the possibility of extension to a maximum of ten total years. Send curriculum vitae, three references, and copies of recent publications to: **John Trimble, Ph.D., Director, Rehabilitation Research and Development Center, P.O. Box 20, Hines, IL 60141.** An Affirmative Action/Equal Opportunity Employer, M/F/H.

Use your talents to help us achieve our goals.

Supervisor of Neurochemistry

We're Anaquest, a division of the BOC GROUP and a recognized leader in the development and manufacture of specialized pharmaceutical products. Our continuing growth has created an exceptional opportunity for a Supervisor of Neurochemistry.

The individual we are seeking for this position will have a Ph.D. in Pharmacology/Biochemistry and up to 5 years' relevant work experience with receptor binding, enzymatic and neurochemical assays, and familiarity with various analytical instrumentation. You should also have demonstrated experience coordinating work activities, conceptualizing and presenting ideas effectively, and motivating and guiding people toward a common goal. In addition, you will act as spokesperson for the Neurochemistry Group.

In return, Anaquest offers a competitive compensation package which includes an excellent salary, comprehensive benefits, and an outstanding relocation package, as well as a highly professional work environment. For immediate confidential consideration, please send your resume to: **Shawn Powell, Human Resources Supervisor, Anaquest, 100 Mountain Avenue, Murray Hill, NJ 07974.** We are an equal opportunity employer M/F/H/V.

Anaquest

BOC Health Care



Schering

Biochemists

If pursuing pharmaceutical breakthroughs with a \$3-billion leader is what you have in mind, come to Schering-Plough Research.

Working as part of an interdisciplinary team, you will be given research challenges which fully utilize your professional background, education and talent to help create medical breakthroughs in the areas of atherosclerosis and lipid metabolism. We require a BS or MS degree in any of the Biological Sciences and laboratory experience with the above areas.

We have the environment and resources that foster professional growth. Our salary and benefits package is generous. For prompt, confidential consideration, send resume to: Ms. P. Valendo, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. An equal opportunity employer.

What you have in mind, we put in action.



Schering-Plough

Amgen, a leader in the research and development of novel protein therapeutics, is rapidly emerging as a fully-integrated biopharmaceutical company. We recognize that our future success depends upon providing continued support for our scientific staff in the development of new and challenging research programs. This support reflects Amgen's commitment to providing an environment that encourages scientific excellence. Amgen's rapid growth is constantly creating opportunities for innovative and motivated Ph.D. scientists at both the Research Scientist and Postdoctoral level who wish to share Amgen's dedication to scientific excellence. The positions below are currently available.

RESEARCH SCIENTISTS

Candidates for all of the Research Scientist positions must have both an appropriate Ph.D. and 2-4 years' relevant Postdoctoral experience as indicated for the positions below:

CELLULAR PHYSIOLOGY Dept. #347

Will apply mammalian cellular physiology and/or somatic cell genetics towards growth regulation and differentiation of animal cells. Experience with culturing various primary and established cell lines, cloning, sorting cells and selecting metabolic and drug resistant mutants is essential.

PHARMACOLOGY Dept. #372

A strong background in whole animal research will be applied to one or more of the following areas: inflammation, wound repair, immunopharmacology, hematology and oncology. Proficiency in statistical analysis of data is essential.

ANALYTICAL BIOCHEMISTRY Dept. #395

Will contribute to on-going methods development programs for the separation and analysis of proteins. Additional responsibilities will include the design, synthesis and evaluation of chemical bonded silica based phases for HPLC protein separations.

PROTEIN DELIVERY Dept. #343

Will develop new concepts for enhancing delivery of proteins and peptides and the design of pharmaceutical formulations to improve sustained release and drug bioavailability. Extensive experience in the IN VIVO evaluation of pharmaceutical formulations and background in Physiology, Biophysics, Pharmaceutics or related fields is essential.

PROTEIN FORMULATION Dept. #344

Responsibilities will include the physical and chemical characterization of bioactive proteins/peptides in solution along with bioanalytical method development and design including evaluation of new controlled release formulations for enhancing protein bioavailability.

MOLECULAR AND CELLULAR BIOLOGY Dept. #112

Exploratory research in the molecular and cellular biology of one of the following disciplines: neurobiology, lipid metabolism, bone formation, soft tissue regeneration, hematology, endocrinology or immunomodulators. Experience in cDNA cloning and gene expression as it relates to these positions is desirable.

POSTDOCTORAL SCIENTISTS

Candidates for all of the Postdoctoral positions must have a Ph.D. in a discipline relevant to the following positions:

GROWTH FACTORS: MOLECULAR AND CELLULAR BIOLOGY Dept. #392

Will conduct studies on the effects of growth factors on a variety of mammalian cell lines. Knowledge of cell physiology and experience with recombinant DNA techniques is essential.

INFLAMMATION AND HOST DEFENSE MECHANISMS Dept. #375

Will examine the influence of colony stimulating factors and lymphokines on the regulation of phagocytic cell function and the inflammatory response. Must be proficient in statistical analysis and familiar with both IN VIVO and IN VITRO studies.

EXPERIMENTAL HEMATOPOIESIS Dept. #334

Will participate in the characterization, cloning and expression of hematopoietic growth factors. Experience in bone marrow and tissue culture and a variety of colony forming assays is essential.

Amgen offers an excellent compensation and benefits package as well as the unique opportunity to contribute to the development of significant new human pharmaceuticals on the cutting edge of biotechnology. If you have the necessary qualifications and would like to be a part of a company that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN, INC.
Recruitment, (Specify Dept. #)
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer

AMGEN

MAKING BIOTECHNOLOGY WORK™

POSITIONS OPEN

INSTRUCTOR—TROPICAL ECOLOGY

The Organization for Tropical Studies (OTS) seeks a tropical biologist to provide leadership and continuity for *Tropical Biology: An Ecological Approach*, an 8-week field course taught in Costa Rica. The half-time position is for 2 years, possibly renewable, with responsibility for coordination of four successive courses beginning as early as January 1990. Research and teaching experience in neotropical biology required; previous experience with OTS courses preferred; candidate must be bilingual to work effectively in Latin America. Send curriculum vitae, names of three referees, and a letter of interest to: **Dr. Lucinda McDade, OTS, Box DM, Duke Station, Durham, NC 27706. Telephone: 919-684-5774.** Deadline 15 July 1989. *Equal Opportunity/Affirmative Action.*

MOLECULAR BIOLOGIST

A position is available 1 August 1989 for a person, preferably with a Ph.D. degree, with molecular biology background. Research project includes the demonstration of the role of cytokines (IL-1, IL-6, TNF, IFN- γ) in human endometrial physiology and function, as well as the relation to the effect of sex-steroid hormones. Send curriculum vitae to: **Dr. S. Tabibzadeh, Department of Pathology, Mount Sinai Services, Elmhurst Hospital Center, 79-01 Broadway, Elmhurst, NY 11373,** or call 718-830-1685. *An Equal Opportunity Employer.*

NEUROSCIENCE BAYLOR COLLEGE OF MEDICINE

The Division of Neuroscience was formed in January 1989 as an independent, basic science division of the medical school. We are now embarking on a major program of expansion in the areas of structure and function of the central nervous system. Our initial recruiting efforts will be directed towards neuroscientists investigating aspects of hippocampal anatomy, biochemistry, behavior, electrophysiology, or modeling. Successful applicants will join a faculty working in a highly interactive and congenial environment within a major medical center and will be expected to develop a vigorous research program in their area of specialization. Teaching responsibilities are minimal, and excellent opportunities exist for interactions with scientists in other basic science and clinical departments. Applications are invited for tenure-track positions at the **ASSISTANT AND ASSOCIATE PROFESSOR** levels. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. James Patrick, Head, Division of Neuroscience, Baylor College of Medicine, 1 Baylor Plaza, Houston, TX 77030.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW. CLONING AND EXPRESSION OF INTERFERON RECEPTORS. Position starting immediately or as late as 1 December 1989 for 2 years. Studies of interferon receptors, particularly by cloning and expression of native or genetically-engineered receptors in eukaryotic systems. Other receptors may be similarly studied. Ph.D. with experience in recombinant DNA and eukaryotic expression systems preferred. Send curriculum vitae and names of three references to: **Dr. Jerome A. Langer, Department of Molecular Genetics and Microbiology, UMDNJ—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854—5635. Telephone: 201-463-5224.**

POSTDOCTORAL FELLOWS, HUMAN MOLECULAR GENETICS. Positions beginning immediately for 2 years. Apply methods of genetic linkage, somatic cell hybrids and long-range physical mapping techniques to either X-linked Alport syndrome, another X region of interest or familial colon, breast or skin cancer. Or develop YAC technology and/or alternate strategies for generating overlapping clone banks and long-range physical maps on chromosomes 17 or X. Applicants eligible for prestigious (\$35,000) Hollaender fellowship. Send curriculum vitae with three letters of reference to: **Dr. David F. Barker, Genetic Epidemiology, University of Utah Research Park, 410 Chipeta Way #105, Salt Lake City, UT 84108.**

Chemistry

A health care company that markets prescription and proprietary products for human and animal care has an opening for an Associate Senior Investigator in its Department of Molecular Discovery at its research and development facility in King of Prussia, Pennsylvania.

The principal duties of this position include the isolation, purification and full characterization of natural products from plant, marine and microbial sources which have been shown in bioassay-directed screens to have potential pharmacological activity; also required is full collaboration with members of the Bioassay Development Group to determine the nature of the active principle in designated leads.

The position will be responsible for selecting and utilizing appropriate methodology for the isolation and purification of biological leads; obtaining suitable analytical and spectral data to characterize and elucidate the structure of isolated compounds; conducting database searches to establish the novelty of isolated compounds and also to find related structures of interest; initiating chemical modification of lead structures for SAR studies; directing a laboratory with at least one subordinate in delegating work and evaluating performance; interacting with other laboratories; presenting work at Departmental, Consultant and Program meetings in a clear and concise manner; maintaining familiarity with ongoing research by attending at least one national meeting a year and keeping up-to-date with current literature; keeping full and legible records of all experiments and their results; filing records of invention on promising leads and publishing research findings when deemed appropriate by both supervisor and the Patent Law Department; keeping supervisor fully informed of progress of leads currently underway and also of any problems that may arise in the laboratory, or with collaborators.

The minimum requirements for the position are a Ph.D. in Organic Chemistry, including thesis research in natural product chemistry, plus four years' experience in marine natural product chemistry. These four years' experience must include:

- Modern isolation and separation techniques
- Interpretation of spectral data
- Demonstrated productivity as evidenced by publications in the scientific literature.

The salary range for this position is \$42,000–\$62,000 depending upon years of experience and qualifications. A competitive benefits package is also included. Qualified applicants should submit resume or c.v. to The Philadelphia Job Bank, 444 N. 3rd St., 3rd floor, Phila., PA 19123 and refer to Job Order #4274732. We are an Equal Opportunity Employer, M/F/H/V.

CEREAL PATHOLOGIST

The Agricultural Research Division of American Cyanamid Company has an immediate opening for a cereal pathologist to join the Fungicide Discovery Department at our laboratory and experimental farm complex ideally located near Princeton, one hour from New York City and Philadelphia. We seek a plant pathologist with several years of experience after the Ph.D. degree, preferably in an agrichemical industry, on wheat and barley diseases.

The successful candidate should be familiar with the fungicides used for control of diseases on these crops and have experience in conducting field studies on cereals. You will direct advanced greenhouse screening studies on experimental fungicides for control of diseases on cereals and other field crops, conduct local field trials, and coordinate off-station trials on experimental fungicides for control of diseases on these crops. Again, an experienced cereal pathologist is sought for this position.

American Cyanamid Company offers a competitive compensation and benefits package. Interested individuals should send resumes and reference contacts to Employment Office, Dept. SC-616, American Cyanamid, Agricultural Research Division, P. O. Box 400, Princeton, New Jersey 08540. An Equal Opportunity Employer M/F/H/V.



THE COMMITMENT GROWS EVERY DAY

RESEARCH & DEVELOPMENT SCIENTISTS

Life Technologies, Inc., a leading supplier of research products for Cell Culture and Molecular Biology is establishing a new Cell Biology business to provide research products for the cellular and molecular biochemistry market.

There are immediate openings for the following:

SENIOR SCIENTIST

The selected candidate will identify new product areas for the Cell Biology business and supervise their qualification and development to meet the business objectives.

The ideal candidate will have a Ph.D. degree and post-doctoral experience in cellular, molecular or protein biochemistry. Strong communications and interpersonal skills and relevant experience in the biochemistry industry.

TECHNICAL SERVICES SCIENTIST

The selected candidate will be responsible for the transfer of new product technical information by generation of appropriate technical documentation, product information sheets, and development of workshops and training sessions. The ideal candidate will have a Ph.D. in the life sciences, strong communication skills and experience in the biotechnology industry.

For consideration, please send resume or C.V., in confidence, to:

Mr. Richard L. Hotaling, Jr.
Personnel Manager
Life Technologies, Inc.
Cell Biology, Dept. SB
8717 Grovemont Circle
Gaithersburg, MD 20877
(A suburb of Washington, D.C.)

LIFE TECHNOLOGIES, INC.

An equal opportunity employer, M/F/V/H

Bionetics is realizing its potential in Biomedical Research.

You can realize your potential at Bionetics.

Founded in 1961, the Organon Teknika Corporation-Bionetics Research Institute (OTC-BRI) family was acquired in 1985 by Akzo, N.V. of the Netherlands. Akzo is active in chemicals, fibers, coatings and health-care products. It operates in 300 locations in 50 countries with 70,000 employees.

Under the Akzo Pharma Division, Bionetics Research Institute, in the Greater Washington, D.C. area, is pursuing a program of cancer, AIDS and cardiovascular disease research and diagnostic product development. Positions in this group offer opportunities for collaboration with academic, industrial, and government investigators throughout the scientific community.

POSTDOCTORAL SCIENTIST Nucleic Acid Technology

The successful candidate will explore gene probe methodologies for detection of pathogens within the Product Development Laboratory in close association with the Molecular Biology Laboratory.

We seek applicants with a Ph.D. degree in biochemistry or molecular biology with a strong biochemistry background and experience in nucleic acid chemistry and nucleic acid enzymology. Proven skills in nucleic acid synthesis, modification, and hybridization will be utilized in this work.

POSTDOCTORAL SCIENTIST Immunoassay Technology

The successful candidate will develop monoclonal antibody-based immunoassays for tumor markers and apolipoproteins in the Product Development Laboratory.

We seek applicants with a Ph.D. degree in immunology or clinical chemistry and experience in diagnostic immunoassay development for the clinical laboratory. Proven skills in the development of assays for serum/plasma and urine samples will be utilized in this work.

Compensation for these positions includes a comprehensive benefits package with health, life and dental insurance, relocation, if necessary, and a company-matched savings plan.

To apply, send your curriculum vitae to the address below. Letters of recommendation and transcripts may be requested following initial evaluation of qualifications.

OTC-BIONETICS RESEARCH INSTITUTE

Department SM-616
1330-A Piccard Drive
Rockville, MD 20850

An Equal Opportunity
Employer M/F/H/V.
Principals Only.



Immediate Openings for
APPLIED ECOLOGISTS

Will participate in long-term research and monitoring programs to evaluate the effects of energy related development on the endangered San Joaquin kit fox, giant kangaroo rat, blunt-nosed leopard lizard, and other species of concern in the San Joaquin Valley of California. Minimum requirements are a B.S. degree in biology, zoology, wildlife management, or related field with emphasis on vertebrate ecology, plus 2-4 years additional related experience. Applicants must have demonstrated ability to design, implement, manage and carry out research projects, synthesize data, and prepare written and scientific articles. Knowledge of environmental laws and regulations and experience in supervising scientific and technical staff and developing new programs is desired. Work location is Bakersfield, California. Opening SB 89-14.

Qualified candidates send resume with job opening to:



EG&G Energy Measurements
Santa Barbara Operations
Attn: Technical Recruiting
130 Robin Hill Road
Goleta, California 93117

We require a pre-employment physical examination which includes drug and alcohol screening. U.S. Citizenship Required. An Equal Opportunity Employer.

Bioanalytical Chemist

Syntex, an international health care company and a leader in its field, has an outstanding opportunity for a Bioanalytical Chemist at our research headquarters on the San Francisco Peninsula.

You will perform characterization of new drug substances, including peptides, proteins and novel organic compounds. Be prepared to correlate analytical parameters with biological activities as well as isolate and identify impurities and degradation products. You will support new drug applications by developing analytical methods and establishing quality criteria. State-of-the-art separation science skills are essential. Requirements include a PhD in analytical/physical chemistry or biochemistry and postdoctoral or industrial experience in a related field.

Syntex offers a competitive salary, benefits and relocation package in campus-like surroundings. If you have good communication skills and want to belong to a dynamic research team, please send your resume to: Syntex, Professional Staffing, Dept. KH/PAC, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.



ANNOUNCEMENT

FRANZ VOLHARD FELLOWSHIP



The German Hypertension League has created a new research fellowship, now available to scientists currently involved in fundamental or clinical research, relevant to hypertension. Basic criteria for the selection are scientific merit and a detailed research proposal. Recipients will be selected on the vote of two independent experts by the Scientific Committee of the German Hypertension League. Candidates from any country can work for 6 to 12 months in a laboratory or hospital of their choice. This award is sponsored by

ESSEX PHARMA GmbH, München.

The deadline for receipt of research proposals is August 31, 1989.



THE
GERMAN HYPERTENSION LEAGUE

Further details may be obtained from

Deutsche Liga zur
Bekämpfung des hohen Blutdruckes e.V.
c/o Prof. Dr. med. D. Klaus
Postfach 102040, D-6900 Heidelberg, FRG
Reference: Franz Volhard Fellowship

ADVERTISEMENT

SENIOR RESEARCH ASSOCIATE WASTE MANAGEMENT RESEARCH AND EDUCATION INSTITUTE THE UNIVERSITY OF TENNESSEE, KNOXVILLE

The Waste Management Research and Education Institute, a state-sponsored "center of excellence" at The University of Tennessee, is seeking a qualified person to fill a senior research position specializing in environmental biotechnology policy. With internal and external funding of approximately \$3 million annually, the Institute has specialized in: 1) research on public policy issues of waste management and environmental quality and 2) basic and applied research applying the tools of biotechnology to environmental problems, in partnership with the university's Center for Environmental Biotechnology and in collaboration with Oak Ridge National Laboratory and industry.

The person filling the senior research position will be required to have a Ph.D in science, engineering, or social science; be thoroughly knowledgeable about the science of modern environmental biotechnology and its related policy issues; and have several years of relevant experience with a record of publication and scholarship. The position is full-time and the possibility of a joint appointment with an academic department can be explored. Salary is negotiable and competitive, and the starting date is negotiable. Senior and junior researchers in government, industry, and academia are encouraged to apply. All inquiries and nominations should be addressed to: Dr. William Colglazier and Dr. Gary Saylor, Co-chairs, Search Committee for Environmental Biotechnology Policy Position, Waste Management Research and Education Institute, The University of Tennessee, 327 South Stadium Hall, Knoxville, TN 37996-0710. Applicants should submit a current curriculum vitae. Review of applications will begin as soon as they are received.

UTK is an EEO/AA/Title IX/Section 504 Employer.

CLINICAL SCIENTISTS

Nelson Research, a wholly owned subsidiary of Ethyl Corporation situated on the campus of the University of California at Irvine, is a pharmaceutical research firm committed to the discovery and development of new drugs. The company currently has openings for Clinical Scientists.

Our recent acquisition by the Ethyl Corporation affords us the opportunity to expand our Clinical Development activities. As part of this expansion, we have the need for dynamic individuals to fill senior positions in Clinical Research.

You will be responsible for planning the Clinical Development of new chemical entities in such diverse therapeutic areas as cardiovascular, neurological and dermatological. The ideal candidate will hold an M.D. or a Ph.D. in physiology or pharmacology and will have a minimum of 2 years pharmaceutical experience or a demonstrated academic research achievement in a clinical facility. Excellent oral and written communication skills are essential.

The position offers a rare challenge and unique opportunity for professional growth along with the chance to contribute to the overall success of a growing company.

Nelson Research offers a professional environment and competitive salary and benefits. Interested candidates may send their resumes and salary history to:

Personnel Manager
Nelson Research & Development Company
1001 Health Sciences Road West
Irvine, CA 92715



An Equal Opportunity Employer

DEPUTY DIRECTOR

DIVISION OF EXTRAMURAL ACTIVITIES
NATIONAL CANCER INSTITUTE
NATIONAL INSTITUTES OF HEALTH

The National Cancer Institute (NCI) is seeking candidates for the position of Deputy Director of the Division of Extramural Activities (DEA). This position is located in Bethesda, Maryland and is a permanent full-time position with a salary range of \$68,700 to \$76,400 per annum commensurate with qualifications. Additional salary incentives are available should a physician be selected for this position.

The Deputy Director, DEA, along with the Director, is responsible for the day-to-day scientific management of the Division which conducts the scientific review and evaluation of grant and cooperative agreement applications and contract proposals in response to the programmatic initiatives of the NCI. The extramural research funded by the NCI supports a broad program of activities designed to increase knowledge of the causes, prevention, control, diagnosis and treatment of cancer with a total budget of approximately \$600 million annually.

Applicants for this Senior Executive Service position must have a doctoral level degree or equivalent in one of the biomedical sciences. Send Applications to:

Ms. Dolores Guido, NCI
Bldg. 31 Rm. 3A19
9000 Rockville Pike
Bethesda, MD 20892

For applications and a copy of the requirements, contact Ms. Guido, at NCI on (301)496-8182.
Deadline for applications is July 10, 1989

NCI IS AN EQUAL OPPORTUNITY EMPLOYER



REGENERON

Staff Scientists

Postdoctoral Fellows

Molecular Biology Neurobiology

Regeneron seeks to apply recent advances in the understanding of neuronal growth and regeneration to the development of novel therapeutic products for degenerative and traumatic neurological disorders. **Regeneron** offers an exciting, collegial environment in which state-of-the-art molecular skills are brought to bear on outstanding problems in neurobiology and medicine. Key projects focus on the discovery, purification, and molecular cloning of novel neurotrophic growth factors, and on the assessment of their biological roles and therapeutic potentials using innovative cell culture methods and animal models.

Present openings in **Molecular and Cell Biology** require skills in the areas of:

- Protein Biochemistry •
- Mammalian Expression Vectors •
- *In vitro* Protein Synthesis •
- Monoclonal Antibodies •
- Transgenics •
- Molecular Cloning •

Positions in **Neurobiology** require strong background and expertise in the areas of:

- CNS Development •
- CNS Regeneration •
- Models of Neuronal Disease •
- Neurotrophic Factors •
- Neuronal Cell Culture •

Regeneron's modern facility is located on a 275-acre wooded campus in Westchester County, 20 miles north of Manhattan, near major universities and medical centers. **Regeneron** offers excellent compensation packages, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities, and ready access to the cultural and business centers of New York City.

Please send your resume, in confidence, to: Ms. Carol Deaken, **Regeneron**, Suite 10, 777 Old Saw Mill River Rd, Tarrytown, NY 10591-6707.
Regeneron is an equal opportunity employer.

POSITIONS OPEN

The Division of Neurosurgery of the University of Pennsylvania Medical Center is seeking qualified candidates to fill the following positions.

PROFESSOR LEVEL NEUROPSYCHOLOGIST. Should have a distinguished record of teaching, clinical services, and research. Candidates should have international recognition in the field of head injury and/or other neurosurgical diseases with a demonstrated record of teaching and research consistent with appointment at the Professor level, and should have a minimum of 10 years in faculty positions. Applicants should have expertise in evaluation of outcome including assessment of surgical and pharmacologic treatments. Qualified candidates will also have demonstrated experience in establishing and maintaining appropriate clinical services for neurosurgical patients.

ASSISTANT PROFESSOR LEVEL NEUROSURGEON. Candidate must be Board-eligible/certified with a special interest in the spinal cord disorders including trauma, vascular disease and tumors. In addition to clinical interest and experience, candidates should have research plans in these fields.

ASSISTANT PROFESSOR LEVEL NEUROSCIENTIST. Candidates should have a primary research interest in the field of experimental neural trauma with demonstrated background in the anatomy and physiology of neural injury. Specific fields of interest that are desirable include axonal regeneration and plasticity, excitotoxicity and NMDA and non-NMDA receptors, and histopathological responses of CNS to trauma. A strong interest in pharmacological intervention is also desirable. Qualifications include the Ph.D. in an appropriate discipline, 2 to 3 years of postdoctoral experience, and evidence of potential as a scholar.

Applications from women and minority candidates are encouraged.

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

Send curriculum vitae and references to:

Eugene S. Flamm, M.D.
Chairman, Division of Neurosurgery
5 Silverstein
3400 Spruce Street
Philadelphia, PA 19104

POSITIONS OPEN

PENNINGTON BIOMEDICAL RESEARCH CENTER BATON ROUGE, LOUISIANA

Pennington Biomedical Research Center, a newly opened modern research facility affiliated with Louisiana State University Medical Center in New Orleans, invites applications to fill the position of **NUTRITIONAL BIOCHEMIST/STABLE ISOTOPE LABORATORY DIRECTOR.** The primary research goal of this center is in the area of nutrition.

The candidate must have a Ph.D. in human nutrition, biochemistry, or related field. Two years of experience in isotope technology, chromatography, ultracentrifugation, lipoprotein isolation techniques and related laboratory methodologies. Demonstrated record of scholarly research activity as evidenced by publications in referred journals.

Salary will be commensurate with educational background and experience.

Qualified candidates should send their curriculum vitae to:

Search Committee
Pennington Biomedical Research Center
6400 Perkins Road
Baton Rouge, LA 70808
Telephone: 504-767-0880

*LSUMC is an Equal Employment Opportunity/
Affirmative Action Employer.*

POSTDOCTORAL FELLOW AND RESEARCH ASSOCIATE positions available for Ph.D.'s, July 1989, to study molecular and physiological response mechanisms of platelets to streptococci. Certain streptococci induce unique platelet (i) signal transduction pathways that may (ii) mediate dynamic cardiovascular sequelae in vivo. Experience in molecular biology of receptors or cardiovascular physiology preferred. Send curriculum vitae, research goals, and three references by 1 July 1989 to: Dr. Mark C. Herzberg, School of Dentistry, 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

PORT OF OAKLAND PORT ENVIRONMENTAL MANAGER Salary: \$55,000 to \$70,000 DOQ, Excellent Benefits

Seeking highly qualified applicants. Will manage staff of environmental planners and environmental scientists in formulation of environmental strategies for Port development; environmental assessment of and preparation of environmental documentation for Port development projects; development of a hazardous waste program; promote compatibility between Port activities and projects and regional, state, and national environmental goals; ensure compliance with all applicable regulatory agencies governing environmental issues; and enhance ability of Port to successfully complete projects and programs in support of the Port's mission and goals. To apply, must have master's degree in planning, environmental science, engineering, or related field and 10 years in planning, science and/or engineering which includes 5 years in environmental planning and 5 years in management or supervision. Experience beyond minimum may be considered in lieu of Masters, with possession of B.A. in equivalent field. Apply immediately with resume and cover letter to: **Rudy Ramos, Personnel Manager, Port of Oakland Personnel Department, 66 Jack London Square, Oakland, CA 94604. Telephone: 415-444-3188, extension 513.**

POSTDOCTORAL FELLOW POSITIONS at the Addiction Research Center in Neuroscience. Topics of research include: identification, characterization, and purification of drug and neurotransmitter receptors; use of brain imaging techniques to elucidate drug action; neurochemical mechanisms of reward and addiction. Salaries range from \$20,000 to approximately \$40,000 depending on experience and qualifications. Benefits and relocation expenses are available. Previous postdoctoral experience acceptable but not necessary. *Most available positions are for U.S. citizens.* Send curriculum vitae, bibliography, and two letters of reference to: **Dr. Michael J. Kuhar, NIDA Addiction Research Center, P.O. Box 5180, Baltimore, MD 21224.**

Federal Government is an Equal Opportunity Employer. ADAMHA is smoke free.



UNIVERSITY OF CALIFORNIA DAVIS BIOTECHNOLOGY COORDINATOR

Applications are being sought for a new full-time position of Biotechnology Coordinator for the Davis campus of the University of California. The Coordinator will be responsible for the development and leadership of the campuswide biotechnology program and coordinate the activities of biotechnology programs in three colleges and two schools. The Coordinator will report to the Vice Chancellor for Research, and depending on experience and qualifications, may be eligible for an academic appointment in an appropriate department.

Applicants should have a background of outstanding research in an appropriate field with nationally and internationally recognized scholarship in that field; a background of successful administrative and academic leadership; a demonstrated ability to negotiate and secure funding for programmatic and research development; an ability to deal effectively with diverse groups, including faculty, students, administrators, industry, government and the community; and a commitment to affirmative action.

The Coordinator will be responsible for planning and development of biotechnology research, facilities and space, procurement of instrumentation, organization of multi-investigator programs, technology transfer, liaison with regulatory agencies, public education and relations, and advising curricular planning units.

The preferred starting date is 1 January 1990. Nominations and letters of application with a curriculum vitae, statement of research interests, a list of publications, reprints of selected publications, and names and addresses of three references should be submitted as soon as possible and preferably by 1 September 1989. The position will remain open until filled. Requests for confidentiality will be honored. Write to:

**PROFESSOR ROY DOI, CHAIR
BIOTECHNOLOGY COORDINATOR SEARCH AND
SELECTION ADVISORY COMMITTEE
DIVISION OF BIOLOGICAL SCIENCES
UNIVERSITY OF CALIFORNIA, DAVIS, CA 95616
(916) 752-6764
(916) 752-2604 (FAX)**

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

TASK MANAGER

Supervise staff of 10-12 software programmers, analysts, and AI engineers responsible for the development and implementation of a prototype computer workstation at NASA/Ames Research Center for designing & analyzing advanced cockpit concepts. The group's effort is focused on computationally representing and evaluating the man-machine from a human factors perspective and depends heavily on visualization as a means of presenting results. Requirements include: 3 yrs. project management experience in a scientific research environment & 8 yrs. software engineering experience; MS or PhD in CS/EE (Cognitive Engineering); solid background in Lisp and/or C (both would be best), preferably on Symbolics or Silicon Graphics Computers; strong interpersonal skills with the ability to lead and integrate the diverse efforts of a highly skilled staff; & demonstrated ability to move research ideas and findings into practical applications. Experience in large-scale simulation and software integration a plus.

Send resumes to:



**1121 San Antonio Road
Palo Alto, CA 94303
Dept: SCIENCE**

EOE/m/f/h/v

VETERINARY PATHOLOGIST

Boehringer Ingelheim Pharmaceuticals, Inc.

We are an innovative and highly respected producer of prescription and over-the-counter drugs, located in DANBURY, CT.

Due to expansion, the following position is available in the Department of Toxicology and Safety Assessment at our Research and Development Center.

The candidate we seek should have a D.V.M. Degree and be ACVP Board Certified with 2 or more years experience in toxicologic pathology. Pharmaceutical experience is preferred. You will provide pathology support for the Toxicology, Immunology and Pharmacology Departments, supervise and perform laboratory procedures, write and review protocols and reports and assist in the design and start-up of a modern histopathology laboratory. Additionally, you would serve as Toxicology Representative on interdisciplinary research teams, function as study monitor for contract studies and participate in peer review of drug safety studies.

BOEHRINGER INGELHEIM offers a competitive salary and benefits package, including relocation assistance and the opportunity to have your contributions recognized.

If interested please send your C.V. to: Dept JC-1S-880, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v



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Ingelheim**

SENIOR AEROSOL PHYSICIST

NSI Technology Services Corporation, a nationwide contract research and development firm, is seeking a Senior Aerosol Physicist to conduct research on the deposition and clearance of aerosols in the lungs. The successful candidate for this position will be responsible for:

- design and implementation of an experimental program to study deposition of fluorescent and/or radioactive aerosols in hollow lung casts
- collaboration with other scientists on experimental validation of theoretical models of particle deposition in bifurcating airways
- collaboration with pulmonary physiologists to design and implement experimental studies of particle clearance from common laboratory rodents.

Requirements include a Ph.D. or comparable experience in physics, aerosol sciences, mechanical engineering, or related field. A strong record of research and publications in the area of lung deposition must be demonstrated. Salary is competitive and commensurate with experience. Qualified candidates should submit their resume, including salary history and requirements, in confidence, to:

HUMAN RESOURCES
ATTN: #4210-36

**NSI TECHNOLOGY
SERVICES CORPORATION
ENVIRONMENTAL SCIENCES**

A Subsidiary of ManTech International Corporation
P.O. Box 12313
Research Triangle Park, NC 27709

EOE

Genentech, Inc., a leader in the field of biotechnology, currently has the following opportunities available.

Postdoctoral Researchers

Genentech has added a dimension to our existing postdoctoral training program. This new program, administered by Dr. David Botstein, features opportunities for research and training across the whole spectrum of Research and Development. A number of positions are currently available in this new program.

Genentech is committed to maintain a standard of excellence that encourages creativity and provides personal and professional growth. Many postdoctoral alumni have gone on to academic positions at major research universities, or have gone on to research positions in the biotechnology industry.

We expect Genentech Postdoctoral Fellows to conduct independent research in the areas of our scientific interests, publish in the leading scientific journals, attend and present their work at scientific conferences, and to maintain close ties with the academic community. Dept. DB.

Research Assistants/ Associates

Biochemistry/Molecular Biology

Working on programs to discover new human pharmaceuticals, these positions offer a challenging opportunity to be a key team participant.

Typical requirements include a BS/MS in Biochemistry, Molecular Biology, Chemistry or closely related scientific field. Candidates must have a minimum of 2 years' experience in one or more of the following areas: biochemistry techniques including chromatography, electrophoresis, protein purification and characterization, cell/tissue culture, animal or cell models, and assay development; molecular and cell biology techniques including DNA cloning, expression and sequencing. Dept. RA.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, please send your resume indicating appropriate Department to Yvonne Davino, Human Resources, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

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At Praxis Biologics, we're pioneering the design, manufacture and marketing of vaccines so sophisticated, they're changing people's lives—right now.

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MOLECULAR BIOLOGY/ GENETICS

We are looking for a Ph.D. with 2-5 years' experience in the molecular biology/genetics of expression of foreign genes in recombinant bacterial systems.

IMMUNOLOGY

We need an Immunologist to develop and monitor cytotoxic T-cell responses and/or mucosal immunity to various candidate vaccine antigens in experimental animals. You should have a Ph.D. in Immunology with 2-5 years' experience in evaluating cell mediated immunity. Experience in working with IgA systems is a plus.

At Praxis, you'll enjoy a professional atmosphere and the kind of salary and benefits package you'd expect from a industry leader. Please send your resume to: **Human Resources Department, 300 East River Rd., Rochester, NY 14623.** An Equal Opportunity Employer M/F.

P R A X I S
B I O L O G I C S

RESEARCH SCIENTISTS

CoCensys Inc. is an innovative start-up company focused on the frontier of molecular therapeutics as it relates to diseases of the central nervous system (CNS). We are seeking highly motivated research scientists to add to our outstanding scientific team. Research and development will be conducted at the University of Southern California Health Sciences Campus. Current opportunities include:

MEDICINAL CHEMISTRY - SENIOR SCIENTIST AND RESEARCH ASSOCIATES

Synthetic organic chemist at the Ph.D. level and research associates (MS/BS) with at least 2 years experience desired. Individuals with experience in the preparation of prodrugs for CNS active agents preferred.

NEUROPHARMACOLOGY - RESEARCH ASSOCIATE

MS degree or BS with 2 or more years of research experience in neuropharmacology or a related area is essential. Knowledge and experience in the *in vivo* and *in vitro* screening of CNS active agents preferred.

We provide highly competitive industrial scale salaries/fringe benefits in an academic setting. Send resume and three references in strictest confidence to: Personnel Director, CoCensys Inc., Box 123, USC School of Pharmacy, Los Angeles, CA 90033-1086. CoCensys is an equal opportunity employer.

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SETTING THE PACE IN ANTIBODY-BASED TECHNOLOGY

Centocor was founded in 1979 to employ emerging biotechnologies for the development of diagnostic and therapeutic products for human health care. Today, Centocor is a leading international biopharmaceutical company developing monoclonal antibody-based products for the detection and treatment of cardiovascular, infectious and immune-related diseases and cancer.

Our diverse product portfolio offers the opportunity to work at the forefront of medical research and development. Our fast-paced, interactive and challenging work environment stimulates technological innovation and fosters career growth.

We currently have a number of openings for individuals with M.D.'s, Ph.D.'s, Master's and Bachelor's degrees to work in the following fields:

- *Molecular Biology*
- *Immunobiology R & D*
- *Mammalian Cell Culture*
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- *Bioanalytical Chemistry*
- *Biostatistics*
- *Computer Operations*
- *Project Management*
- *Clinical Research*

Centocor offers competitive salaries, a fully paid benefits package, relocation assistance, and the chance to participate in the development of a major new biopharmaceutical company. The Company's headquarters, located in Malvern, Pennsylvania, and our facilities in Leiden, The Netherlands and Tokyo, Japan employ over 475 employees.

For confidential consideration, please submit your resume to: Centocor, Inc., Human Resources Department S-R&D, 244 Great Valley Parkway, Malvern, PA 19355. Centocor is an equal opportunity/affirmative action employer.



RESEARCH ASSOCIATES PROTEIN BIOCHEMISTRY

Amgen is an innovator in the discovery, development and production of new protein therapeutics through recombinant DNA technology. As a result of our continued growth, we have an immediate need for Research Associates in our Protein Biochemistry group to contribute to on-going research programs in the purification and characterization of natural and recombinant proteins including various cellular growth factors and immunomodulators.

Candidates must have a BS or MS degree in Biochemistry or a related field with 2 years' research experience in Biochemistry. Experience with LC and HPLC/FPLC and a background in Analytical Biochemistry, Cell Biology or Molecular Biology are essential.

Amgen offers an excellent compensation and benefits package as well as the unique opportunity to contribute to the development of significant new human pharmaceuticals on the cutting edge of biotechnology. If you have the necessary qualifications and would like to be a part of a company that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN, INC.
Recruitment, Dept. #403
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

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Employer

U.S. Public Health Service Epidemiology Training Program

Applications are being accepted for the 1990 U.S. Public Health Service Epidemiology Training Program. **APPLICATIONS ARE DUE SEPTEMBER 1, 1989.** Training will begin approximately July 1, 1990.

Features:

The first year, trainees attend a university to study epidemiology, biostatistics, and related subjects. The subsequent two years, they will perform research with senior epidemiologists at one of the following: National Institutes of Health (NIH), Food and Drug Administration (FDA), National Center for Health Statistics (NCHS), or Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). First year salaries are currently \$32,000 for physicians and \$24,000 for non-physicians, with an increase in salary of \$2,000 each year. Educational costs and allowable relocation expenses for the first year are provided.

Eligibility:

M.D., D.O., Doctorate in an allied health profession, or Ph.D., in a biomedical or behavioral science or equivalent, and one year of postdoctoral training or experience by July 1, 1990; U.S. citizenship as of September 1, 1989; acceptability to an accredited university offering an MPH or equivalent, or more advanced public health degree.

To obtain an application and more details, send your name and home mailing address to: **NIH Training Center, PHS Epidemiology Training Program, 9000 Rockville Pike, Building 31/B2C31, Bethesda, MD 20892.**

Industrial Postdoctoral Position Oncogene Research

Monsanto Agricultural Company is seeking a Postdoctoral Scientist to study the role of oncogene activation and expression in our chemical carcinogenesis at our Environmental Health Laboratory in St. Louis, Missouri. Candidates are required to have a PhD with research experience in molecular biology. Previous research experience in oncogenes is preferred. This position is renewable on an annual basis with an anticipated duration of two years. New laboratory facilities are available. External publications and participation in the scientific community will be highly encouraged.

Monsanto provides a generous compensation package relative to your responsibilities and qualifications. Interested candidates, please forward your resume to: C.D.R.; Mail Zone B3NA; MONSANTO COMPANY; 800 N. Lindbergh Blvd.; St. Louis, MO 63167. An Equal Opportunity Employer M/F/H/V.

Careers for people with ideas

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE—Blood vessel physiology and pharmacology. Mechanisms of coronary artery spasm. Neurotransmitter release mechanisms. Excellent opportunity to participate in challenging research. Experience in biochemical, electrophysiological or membrane techniques useful. Send résumé and two recommendations to: **Dr. Stanley Kalsner, Chairman, Department of Physiology, The City University of New York Medical School, 138th Street and Convent Avenue, New York, NY 10031. Affirmative Action/Equal Opportunity Employer.**

YALE UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF THERAPEUTIC RADIOLOGY

POSTDOCTORAL FELLOWSHIP: Exciting opportunity for Ph.D. with background in protein biochemistry and immunology and interest in vascular biology or cell motility to join a vascular cell biology laboratory at Yale Medical School. Current investigations center around isolation, characterization, and cloning of vascular and epithelial cell migration factor(s). Competitive salary. Please send curriculum vitae to: **Dr. Eliot M. Rosen, Department of Therapeutic Radiology, 132 HRT, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

POSTDOCTORAL/PHOTOSYNTHESIS available 1 September 1989 for studies of water oxidation, reaction centers, and properties of membrane surfaces. Approaches include structural biochemical, biophysical and molecular biological. The position is for 1 year with the possibility of extension. Salary is highly competitive. Additional postdoctoral, sabbatical, and graduate student opportunities are available to U.S. citizens under NRC and AWU competitive programs. Send curriculum vitae, short statement of research interests, and names of three references, with telephone numbers, to: **Dr. Michael Seibert, Solar Energy Research Institute, 1617 Cole Boulevard, Golden, CO 80401. Women and minorities are encouraged to apply. SERI is an Equal Opportunity Employer.**

A **POSTDOCTORAL POSITION** is available immediately for NIH-funded studies on the temporal aspects of HIV-1 gene expression and sequence variation. Experience in molecular biology is desirable. Salary commensurate with level of experience. Send inquiries and curriculum vitae to: **Dr. Steven Wolinsky, Department of Medicine, Northwestern University, 303 East Chicago Avenue, Chicago, IL 60611.**

POSTDOCTORAL POSITION LABORATORY OF IMMUNOPATHOLOGY

Academic laboratory is seeking to fill a position at the postdoctoral level to study the differentiation and function of T-lymphocytes. Experience in cellular immunology and tissue culture is desirable. A joint appointment will be held in an appropriate department of Harvard Medical School. Send curriculum vitae and two references to: **Dr. Harvey Cantor, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS—SCRAPIE PRION PROTEIN GENE EXPRESSION AND STRUCTURE—Interdisciplinary training in the expression of cloned prion protein (PrP) genes in eukaryotic cells and post-translational modifications of the scrapie and cellular PrP's. Construction of recombinant PrP genes and their expression in cultured cells and transgenic rodents provide an unusual opportunity to merge molecular biology and neurodegenerative disease research. Structural studies on PrP CHO and glycolipids using HPLC, GC/MS, LSIMS and tandem mass spectrometry. Crystallization and x-ray structure of PrP's are planned. Candidates with molecular biology, protein purification, genetics, physical biochemistry, organic chemistry, enzymology, mass spectrometry, CHO or protein structure are encouraged to apply. Must be U.S. citizen or hold a permanent residence visa for NIH training stipends (\$17,000–\$30,000). Send curriculum vitae, copies of papers, and three letters of recommendation to: **Stanley Prusiner, University of California, San Francisco, San Francisco, CA 94143–0518. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study the relationship between tubulin structure and enzymology and microtubule function in vivo. Project involves oligonucleotide-directed mutagenesis of cloned yeast tubulin genes. Strong background in molecular biology is desirable. Send curriculum vitae, names and addresses of three references and a statement of research interests to: **Dr. Kevin Farrell, Department of Biological Sciences, University of California, Santa Barbara, CA 93106. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986). An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION

NIH Staff Fellow/Senior Staff Fellow position is available for work on research projects investigating the biochemical and molecular biological characteristics of dopaminergic neurotransmitter receptors. One project involves investigating the cell biology, pharmacology, and regulation of the receptors in cultured neuronal cell lines expressing either D₁ or D₂ dopamine receptor subtypes. Areas of particular interest include investigation of receptors-effector coupling mechanisms, G protein interactions, and mechanisms of agonist-induced receptor desensitization. A second project involves the molecular cloning of the receptor subtype genes, analysis and characterization of gene structure and regulation of gene expression in both normal and pathophysiological states. Experience in recombinant DNA technology is helpful but not required. Position is located in Bethesda, Maryland with a salary of \$24,000 to \$45,234 per annum depending on experience and qualifications. U.S. citizenship or permanent resident status is required. Further appointment requirements may be obtained by calling: **Ms. Chris Steyer at 301-496-6334.** Please arrange to send curriculum vitae and two to three letters of recommendation to:

**Dr. David R. Sibley
Experimental Therapeutics Branch
National Institute of Neurological
Disorders and Stroke
National Institutes of Health
PHS Building 10, Room 5C-108
9000 Rockville Pike
Bethesda, MD 20892**

NIH is an Equal Opportunity Employer

POSTDOCTORAL POSITION available immediately to conduct research on neuronal phospholipid metabolism in neurodegenerative diseases. Applicants should have prior research experience in neurochemistry or phospholipid biochemistry. One-year appointment (renewable for up to 3 years) in Department of Neurology at Massachusetts General Hospital and in the Department of Brain and Cognitive Sciences at Massachusetts Institute of Technology. Salary range between \$20,000 and \$25,000 per year, depending upon experience. Send curriculum vitae with two letters of recommendation to:

**John H. Growdon, M.D.
Massachusetts General Hospital
ACC 730
Boston, MA 02114**

POSTDOCTORAL RESEARCH ASSOCIATE POPULATION ECOLOGY/ CONSERVATION BIOLOGY

Two-year postdoctoral position available to conduct research on population dynamics and population viability of the endangered red-cockaded woodpecker. The investigator will analyze long-term data of woodpecker fecundity, survivorship, and genetic variation to develop population viability assessments involving modeling population persistence in relation to demographic, environmental and genetic variability. The ideal candidate will have demonstrated research capability in population modeling and the skills and inclination to communicate effectively with faculty and students in diverse departments as well as conservation managers. Starting salary is \$28,852 and applicants must be available no later than 1 October 1989. Applications will be accepted until 1 July 1989. *USDA Forest Service is an Equal Opportunity Employer. Women and minorities are encouraged to apply.* Send curriculum vitae and the names of three references to: **M. R. Lennartz, USDA Forest Service, Department of Forestry, Clemson University, Clemson, SC 29634–1003.**

POSITIONS OPEN

POSTDOCTORAL POSITION—available in laboratory using electrophysiological and pharmacological techniques to study the role of the inositol phosphate cascade in phototransduction and energy metabolism of individual photoreceptor cells.

Contact:

**Dr. Alan Fein
Department of Physiology
University of Connecticut Health Center
Farmington, CT 06032**

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

POSTDOCTORAL POSITION available immediately for a molecular biologist and/or cellular immunologist to study strategies for HIV-based synthetic vaccine development. Studies using peptides and recombinant proteins include T cell cloning and epitope mapping, and designing/evaluating model vaccines based on incorporating HIV antigenic epitopes into targeted carrier proteins by conventional or recombinant DNA methods. Send résumé and names/telephone numbers of three references to: **Dr. Amnon Altman, IM3, Scripps Clinic and Research Foundation, La Jolla, CA 92037. Equal Opportunity/Affirmative Action Employer.**

OREGON HEALTH SCIENCES UNIVERSITY CENTER FOR RESEARCH ON OCCUPATIONAL AND ENVIRONMENTAL TOXICOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

Newly created, state-supported, multidisciplinary center in neuroscience-rich environment has postdoctoral research associate position available immediately to study molecular mechanism of axonal degeneration in toxic neuropathy. Candidates with Ph.D. and background in neurochemistry, neurotoxicology or pharmacology, with experience in studies on axonal transport, 2-D gel electrophoresis, autoradiography, HPLC and molecular biology preferred. Salary is negotiable, based on experience and qualifications. Excellent benefits package is offered. Send curriculum vitae, references and statement of research interests by 31 July 1989 to: **Dr. P. S. Spencer, Director and Senior Scientist, Center for Research on Occupational and Environmental Toxicology, Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, L474, Portland, OR 97201–3098. Oregon Health Sciences University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Exciting opportunity for a Ph.D./M.D. postdoctoral research associate to join a multidisciplinary program utilizing a unique approach to characterize receptor ligand systems in cytotoxic lymphocyte-tumor cell destruction. Experience in cellular immunology (preference given to T cell cloning), membrane protein biochemistry, and molecular biology techniques. Zero to 3 years of postdoctoral experience. Three years of NIH support. Excellent salary and benefits package offered. Contact: **Dr. Allen J. Norin, Box 19, SUNY Health Science Center at Brooklyn, 450 Clarkson Avenue, Brooklyn, NY 11203–2098. Equal Opportunity/Affirmative Action Employer. DMC#CR0258.**

RESEARCH ASSOCIATE to perform research in high-energy particle astrophysics. Specific duties include: search for antiproton cosmic ray radiation using superconducting magnet techniques; search for extragalactic antimatter using large array scintillators, tracking detector and CR-39 plastic detector with microscope system; perform testing beam calibration of detector response in accelerators. Candidate must possess Ph.D. in physics together with 1 year in position offered or 1 year as researcher in high-energy astrophysics. Note: Experience gained during Ph.D. program acceptable. Must also possess demonstrated ability with application of alignment and calibration of large (several meter) high accuracy drift chambers using optical systems; demonstrated expertise in on-line data acquisition using CAMAC and Fastbus protocols; demonstrated expertise in off-line analysis and Monte Carlo simulation of detectors; demonstrated expertise in supersymmetric particle searches and familiarity with supersymmetry physics; demonstrated expertise in testing and calibration of detector electronics. Salary \$28,000 per year for 5-day, 40+ hour work week. Résumés only to: **Massachusetts DET, CF Hurley Building, Boston, MA 02114. Job Order #9730. Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE in plant molecular biology. A research position is available to study the molecular genetic events associated with maturation, or phase change, in conifers. This research is part of an ongoing collaborative effort to understand the genetic basis for growth and development in the coniferous plants. Funding is available for 2 years, with salary being dependent upon qualifications (\$22,000 to \$25,000). Experience in molecular genetic techniques is desirable. Send curriculum vitae and the names of three references to: **Dr. Keith W. Hutchison, Department of Biochemistry, 177 Hitchner Hall, University of Maine, Orono, ME 04469. Telephone: 207-581-2827.**

An Equal Opportunity/Affirmative Action Employer.

U.S. DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE

TWO POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS are open in the Plant Molecular Biology Laboratory, USDA, Beltsville, Maryland. (i) Molecular biology of the regulation and synthesis of ethylene during senescence (P.I. **Autar Mattoo**). See *PNAS* **85**, 8810 (1989) and *Senescence and Aging in Plants* (Nooden and Leopold, Eds.), pp. 241-280 (1988). (ii) Molecular biology of cell-specific and developmentally regulated genes in soybean (P.I. **Mark Tucker**). See *Plant Physiology* **88**, 1257 (1988) and *Plant Molecular Biology* **9**, 197 (1987). Salaries are \$28,852 per annum. Send curriculum vitae and three letters of reference to: **Dr. A. K. Mattoo, Research Leader, Plant Molecular Biology Laboratory, USDA, Building 006, Room 200, BARC-West, Beltsville, MD 20705.** Applications must be marked 9E008. *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE POSITIONS available immediately for cytokine immunologist, biochemist and molecular biologist to purify and characterize mediators of immunosuppression and study molecular aspects of host-cell invasion by parasite. Send curriculum vitae and the names and addresses of three references to: **Dr. F. Kierszenbaum, Department of Microbiology, Michigan State University, East Lansing, MI 48824.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH FELLOW IN ENDOCRINOLOGY DIVISION OF NUTRITION AND ENDOCRINOLOGY

A postdoctoral position is available to study the interactions of dietary lipids and hormones in human breast cancer, and investigate the effects of antiestrogens on the synthesis of specific hepatic proteins. Experience in endocrine assay techniques and/or steroid biochemistry is required.

This appointment is well suited to an individual seeking either a career in clinical laboratory endocrinology or basic endocrine research at a modern, well-equipped research facility located in northern suburb of New York City. Please submit curriculum vitae to:

**Dr. David P. Rose, Division Chief
American Health Foundation
Division of Nutrition and Endocrinology
1 Dana Road
Valhalla, NY 10595**

An Equal Opportunity Employer M/F/H/V.

RESEARCH SCIENTIST—conduct research to investigate how phosphorylation of erythrocyte membrane skeleton controls entry of malarial parasites into erythrocytes from patients with hereditary disorders. Duties include supervision of students, technicians, and other research associates in the laboratory as well as teaching courses at a leading medical school. Requirements include Ph.D. in biochemistry or related field with at least 3 years of postdoctoral research experience in the above; strong background in erythrocyte cytoskeleton; phosphorylation of membrane proteins and malarial parasite invasion assays; detailed knowledge of the techniques of protein chemistry and immunochemistry including FLPC/HPLC; immunoassays; as well as cloning and sequencing of membrane proteins. Salary: \$32,000 per year. Forty hours per week. Respond with résumé only to: **Job Order #9884, Massachusetts Department of Employment and Training, Special Programs Department, 19 Staniford Street, Boston, MA 02114.**

PROJECT SCIENTISTS

NSI Technology Services Corporation is recruiting Project Scientists for the Global Climate Change Program in Corvallis, Oregon. Incumbents will assume a leadership role in developing and implementing team research along with publishing results in peer-reviewed journals.

Biogeographer: PhD in plant geography, plant ecology, plant physiology, biogeography, paleoecology, climatology, or related field. Preference will be given to those with research experience in synoptic climatology, or in determining the factors limiting the distribution and abundance of species. Experience working at a variety of spatial and temporal scales, and a background in remote sensing or computer simulation are desirable.

Landscape Systems Scientists (2 vacancies): PhD or equivalent experience in earth sciences (watershed sciences, ecology, geography, or related field). Preference will be given to those with a demonstrated ability to perform spatial analysis of watershed or ecological systems. Background in remote sensing, image processing, geographic information analysis, artificial intelligence or expert systems is advantageous.

Physical Climatologist: PhD in physical climatology or related field. Preference will be given to those with expertise in surface boundary layer processes and some background in water resource science. Background in remote sensing or quantitative analysis, and experience working at a variety of spatial and temporal scales is advantageous.

Limnologist/Aquatic Ecologist: PhD in limnology, aquatic chemistry, environmental engineering, aquatic ecology or related field. Preference will be given to those with expertise in aquatic biogeochemistry in both lake and stream systems. Background in quantitative analysis and assessment, and experience working at a variety of spatial and temporal scales is advantageous.

Agricultural Scientist/Soil Scientist (2 vacancies): PhD in agronomy, agriculture, soil science, or related field. Preference will be given to those with expertise in one or more of the following: quantitative analysis of the response of crops to changes in their physical environments; agricultural soils; and transport of pesticides, nutrients, and soil from agricultural sites. Background in spatial analysis, computer simulation, or remote sensing, as well as experience in a variety of spatial scales and agricultural systems, would be advantageous.

Ecophysiolgist/Plant Physiologist: PhD or equivalent experience in botany, ecology, chemistry, plant physiology, plant biochemistry, environmental engineering or related field required. Applicant must have technical experience with measuring gas fluxes from plant foliage. Background in remote sensing and geographic information systems is advantageous.

Systems Ecologist: PhD in biological sciences, preferably in population, community, ecosystem, landscape or regional ecology. Knowledge of factors affecting biodiversity, and a high level of computer literacy required. Experience in a variety of ecological systems, as well as a background in remote sensing and geographic information analysis, would be advantageous.

Water Resource Scientist: PhD and two years of experience or equivalent experience in water resource science or related field. Preference will be given to those with expertise in synthetic hydrology or stochastic methods for distributing hydrologic processes across large regions or landscapes utilizing remote sensing and geographic information systems. Experience in analyzing water resource-climate interactions at a variety of spatial and temporal scales, as well as a background in computer techniques, would be advantageous.

Application materials are to include cover letter (specifically relating qualifications to above position), curriculum vitae, and the names, addresses, and telephone numbers of three references. Initial review of the applications will begin July 1, 1989 and collection of applications will continue until each position is filled.

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POSITIONS OPEN

RESEARCH FELLOW AND POSTDOCTORAL POSITIONS available, subject to availability of funds, to develop Arctic Charr broodstock program. Ph.D.'s with specialization in fish physiology of genetics should send curriculum vitae and have three letters of reference sent directly to: **The Director, Huntsman Marine Science Centre, St. Andrews, New Brunswick, Canada E0G 2X0**, by 31 July 1989.

RESEARCH TECHNICIANS

We are a cancer research center located in Northeast Philadelphia with several positions available for research technicians. Individuals will assist in various aspects of laboratory research, including DNA technology, cell growth, virus infection and tissue culture. These positions require a bachelor's degree in biology, biochemistry, or chemistry. We offer an excellent salary and benefits package, including tuition reimbursement and free employee parking. Interested candidates should send résumé with transcripts to: **Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111**. *Equal Opportunity Employer.*

RETROVIROLOGIST

Applications are invited for an investigator in the AIDS Research Program at City of Hope National Medical Center. Candidates must have a Ph.D. degree and have experience in retrovirology. This tenure-track position of assistant professor includes laboratory, new animal facilities and generous support. The person is expected to develop an independent research program involving retroviral aspects of gene transfer. The opportunity exists to interface with ongoing HIV-1 research involving a National Cooperative Drug Discovery Group and a bone marrow transplantation program. Interested candidates should submit curriculum vitae and a description of research goals to: **Dr. John A. Zaia, Director of Virology, City of Hope National Medical Center, Duarte, CA 91010**. *An Equal Opportunity Employer.*

SENIOR RESEARCH ASSOCIATE

Pharmacology/Toxicology Department of large medical center needs Senior Research Associate to study GABA (GABA_A and GABA_B) dopamine (D1 and D2) receptors in barbiturate or cocaine actions, and to characterize tolerance to and physical dependence on barbiturates or cocaine. A Ph.D. degree in pharmacology/toxicology and at least 2 years of experience in neurotransmitter and drug receptor bindings is required. Experience should also include operation of biochemical instrumentations, e.g., spectrophotometers, high-pressure liquid chromatography, receptor-binding techniques, ultracentrifugation and radioisotopes. Salary: \$21,900 per year. Contact: **Mississippi State Employment Service, 502 Yazoo Street, Jackson, MS 39201-1910**, order number 2340960. *Equal Opportunity Employer, M/F/H/V.*

SUPERVISOR REPRODUCTIVE BIOLOGY LABORATORY

Methodist Hospital of Indiana is seeking a highly qualified individual to fill a full-time position as supervisor of the Reproductive Biology laboratory, within The Center for Reproduction and Transplantation Immunology. The ideal candidate will possess a Master's degree in the reproductive sciences, be self-motivated and have superior communication and supervisory skills. Preference will be given to individuals having previous experience with one or more of the following: in vitro fertilization, gamete handling, gamete cryopreservation or radioimmunoassays. The successful candidate's primary responsibilities will include the day-to-day supervision of medical technologists performing clinical assays as well as participating in ongoing research and development projects.

Methodist Hospital, one of the nation's largest health care facilities, is centrally located in downtown Indianapolis and offers very attractive compensation and comprehensive benefits. For prompt consideration, please forward your résumé in confidence to: **Cheri Thompson, Personnel Department, Department S, Methodist of Indiana, Inc., P.O. Box 1367, Indianapolis, IN 46202**. *Methodist Hospital of Indiana is an Equal Opportunity Employer.*

CONFERENCES

**IMAGING IN MEDICINE AND BIOLOGY:
CURRENT ISSUES AND PROSPECTS**
6 to 8 September 1989
Drexel University
Philadelphia, Pennsylvania

Session topics and lead speakers:
Imaging of the Nervous System
Monte Buchsbaum, M.D.
University of California, Irvine
Cell Imaging
Lee Peachey, Ph.D.
University of Pennsylvania
Imaging of Organ Systems
Alexander Margulis, M.D.
University of California, San Francisco
Structural Imaging
Thomas Budinger, M.D., Ph.D.
University of California, Berkeley
Human Image Understanding
Ellen Hildreth, Ph.D.
Massachusetts Institute of Technology

Contact: **Dr. Dov Jaron, Biomedical Engineering and Science Institute, Drexel University, 32nd and Chestnut Streets, Philadelphia, PA 19104**. Telephone: 215-895-2215; Fax: 215-895-4983.

**INTERNATIONAL WORKING CONFERENCE
HUMAN HEALTH RISKS FROM
GREAT LAKES TOXIC CHEMICALS**
3 to 6 October 1989
Buffalo, New York

This Conference continues a project begun in 1988 by the Great Lakes Program of the State University of New York (SUNY) at Buffalo. Goals are to reduce uncertainty concerning potential health impacts from toxic chemicals in the Great Lakes and to define research to address knowledge gaps.

Participation in this Conference will be by delegate selection from nominations. Approximately 60 delegates representing many biophysical and social science disciplines will be invited. An application must include a current curriculum vitae and a cover letter committing to attend the Conference. Delegates will represent academia, governmental agencies, industry, legislators, and special interest groups. Indicate in the cover letter if your qualifications cover one or more of these groups, besides a scientific discipline.

The deadline for nomination application is 31 July 1989. Send nominations and curriculum vitae to: **Dr. Warren Flint, Great Lakes Program, 207 Jarvis Hall, SUNY, Buffalo, NY 14260**. Questions—call: 716-636-2088.

COURSE

**MORPHOMETRY AND STEREOLOGY
IMAGE PROCESSING
LABORATORY COMPUTING
3-D IMAGING AND DISPLAY**

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Woods Hole, December 1989

**Woods Hole Educational Associates, P.O. Box EM
Woods Hole, MA 02543
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FELLOWSHIPS

**ALEXANDER WISNIEWSKI FELLOWSHIP
IN PSYCHIATRY**

We have an exciting position for a psychiatrist to pursue clinical research in the genetics of brain function. This postdoctoral fellowship in psychiatry is offered by the New York State Office of Mental Retardation and Developmental Disabilities in conjunction with the consortium of medical education in Developmental Disabilities, Institute for basic research in Staten Island and the Department of Psychiatry, State University of New York (SUNY) Health Science Center at Brooklyn. The fellowship will include clinical aspects of developmental disabilities. Research will involve family studies of adults, their offspring and relatives. Clinical assessment, genetic, pharmacological and brain-mapping techniques will be utilized. This is a 2-year position with a highly competitive salary. If interested, please contact: **Dr. H. Begleiter, Department of Psychiatry, SUNY Health Science Center—Brooklyn, 445 Lenox Road, Box 1203, Brooklyn, NY 11203**. *Equal Opportunity/Affirmative Action Employer. DMC#C0275.*

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POSTDOCTORAL FELLOWSHIPS IN MOLECULAR STUDIES OF EVOLUTION. Up to ten awards. Total compensation \$25,000 plus \$10,000 research funds per year. Tenable for 1 to 2 years at universities or non-profit research institutions in U.S. or Canada. Applicant should be prospective or recent Ph.D. in molecular biology, evolutionary biology, or related discipline. Deadline: 8 September 1989. For details, contact: **Dr. Michael S. Teitelbaum, Alfred P. Sloan Foundation, 630 Fifth Avenue, New York, NY 10111**. Telephone: 212-582-0450.

SYMPOSIUM

**FIRST INTERNATIONAL CONFERENCE
ON HUMAN ANTIBODIES
AND HYBRIDOMAS**
18–20 April 1990
Orlando (Lake Buena Vista), Florida
Program Chairman: **Mark C. Glassy, Ph.D., Biotechnetics**

The scientific program will consist of keynote lectures by invited speakers, contributed papers, and poster presentations emphasizing all aspects of human hybridoma and antibody technology, including fundamental research, applied science, and clinical applications.

Deadline for abstracts: 15 October 1989.

Contact: **S. L. Patterson, Butterworths, 80 Montvale Avenue, Stoneham, MA 02180**. Telephone: 617-438-8464, extension 234 or 242.

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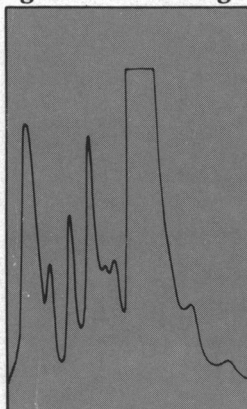
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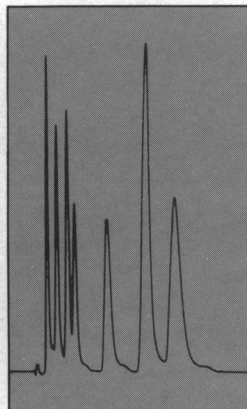
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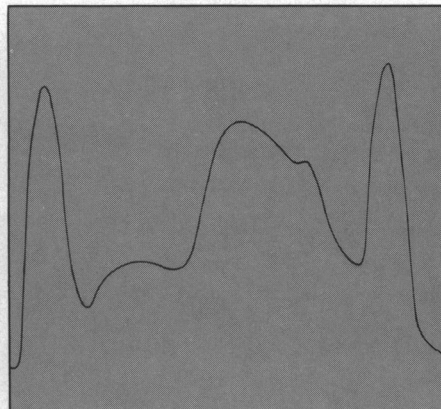
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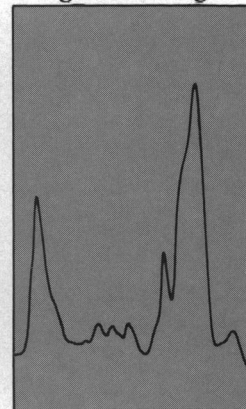
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Classical LC



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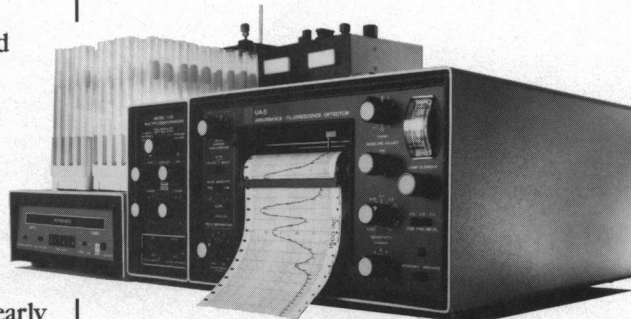
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Here's why Gilson may be the only source you need for liquid handling, LC and HPLC instruments

Whether you're considering a new instrument or putting together a complete HPLC system, start with *Instruments for Liquid Chromatography and Sample Preparation*. You're likely to find everything you need in this new guide to Gilson instruments and systems. It presents an overview of the entire line—our well-known fraction collectors and Minipuls® peristaltic pumps, plus HPLC systems, detectors and automated sample processors. Here are a few examples.

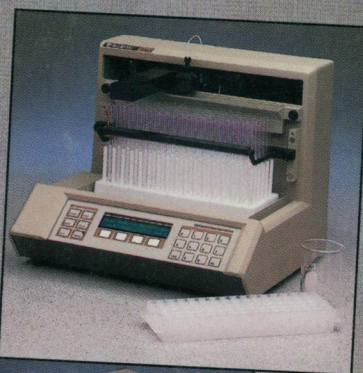
A fraction collector with 98% problem-free performance

Most people associate Gilson with reliable fraction collectors. Many FC 80 and FC 100 micro-fractionators have been in use more than 15 years. But reliability doesn't stop with these instruments. Our newest collector, the FC 203, has a 98% problem-free performance record. A stationary rack system is one feature that assures reliable performance. Other features simplify operation. A special HELP key gives on-line instruction for time, drop or peak mode operation. And the FC 203 is just one of five Gilson fraction collectors.

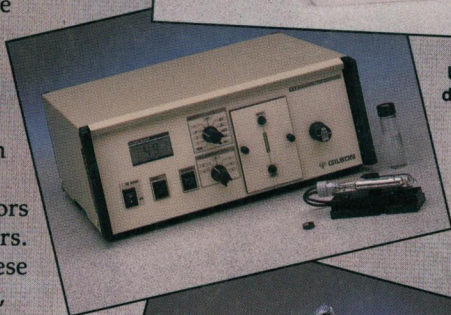
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Among the five Gilson detectors, one of the more versatile is the 112 UV/VIS detector. It has built-in 254 nm and 280 nm wavelengths to meet the most common detection requirements. And with optional lamp/filter assemblies, it can detect at 214 nm, 229 nm, and in the visible range of 340-640 nm. A choice of flow cells is offered for prep and analytical sample loads. Other Gilson detectors include variable wavelength UV, electrochemical, refractive index and fluorometric detectors.

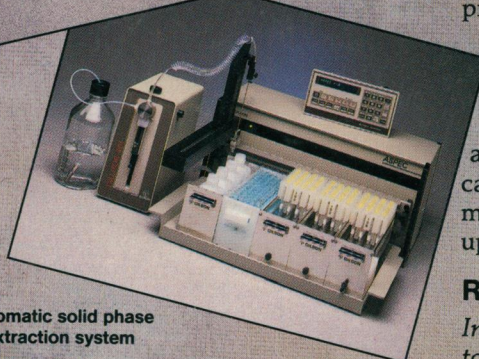
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A new system that automates solid phase extraction

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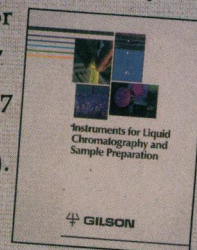
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