Personnel Placement

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

LINE CLASSIFIED ADVERTISING DEADLINES:

Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date). For deadlines for display advertising, please contact Scharero Associates.

POSITIONS WANTED

TOXICOLOGIST, recent M.S. from St. John's University. Experienced in mammalian cell culture, spectrophotometric analyses, histology, cell culture, and immunocytochemical staining techniques and electron microscopy. Also familiar with thin layer and column chromatography and the use of radiochemicals. Seeking position in Central Florida. P.O. Box 1619, Elfin, FL 34680-1619.

Translation from Japanese publications, patents, and technical reports. F.P.O. 211063, Columbus, OH 43221.

POSITIONS OPEN

ANIMAL ECOLOGIST ENDED CHAIR IN VETERINARY MEDICINE

ANIMAL ECOLOGIST is sought with experience preferably in domestic animals and the biological sciences. Seeking interaction with humans for a tenure-track position and an endowed chair in the School of Veterinary Medicine, University of Pennsylvania. Additional background may include ethical issues and the ethical belief system of the veterinary profession. Candidates should have credentials of innovation and academic leadership. Address inquiries to: Dr. K. C. Bovee, Chairman, Moore Chair Search Committee, School of Veterinary Medicine, University of Pennsylvania, 3850 Spruce Street, Philadelphia, PA 19104-6010.

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

ASSISTANT PROFESSOR, 12-month tenure-track position in Colleges of Science and Agricultural Science, with research interests in immunology or eukaryotic molecular biology. Experience with the applications of basic science to any other research discipline of microbiology will be considered. Postdoctoral experience required. Undergraduate and graduate teaching experience with other science faculty. Application closing date: 30 November 1988. Send curriculum vitae, transcripts and three letters of recommendation to: J. L. Peck, Chair, Department of Microbiology, Nash Hall 220, Oregon State University, Corvallis OR 97331-3804. OSU is an Affirmative Action/EQUAL Employment Opportunity Employer, and encourages applications from women and minorities.

ASSISTANT PROFESSOR: Department of Physiology, New York Medical College, seeks applicants for a tenure-track appointment. Applicants should have significant postdoctoral research accomplishments. The position is initially tenured and will be expected to establish an independent research program, interact with a group of scientists from a broad spectrum of disciplines related to physiology, and participate in medical and graduate student teaching. Applicants with an interest in cell and molecular biology of receptors are preferred. Send curriculum vitae, bibliography, description of future plans, and names of references to: Gabor Kaley, Ph.D., Professor and Chairman, Physiology Department, New York Medical College, Valhalla, NY 10595. Telephone: 914-993-4089.

ASSISTANT PROFESSOR: Applications are invited for a position at the level of assistant professor (tenure-track) in the Department of Chemistry at Stanford University, with priority research and teaching interests in the general area of organic or inorganic chemistry. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less) and, in addition, have three letters of recommendation sent to: Professor John Ross, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305. Stanford University is an Affirmative Action Employer in compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, and the Vietnam Era Veterans Readjustment Assistance Act of 1974. Stanford University seeks to increase the diversity of its faculty, staff, and students. Applications are strongly encouraged from women and minority candidates. Stanford University is an Affirmative Action Employer. Send curriculum vitae, statement of research experience and names of three references to: R. C. Gesteland, Chair, Neurobiology Division, Anatomy and Cell Biology Department (M-521), University of Cincinnati Medical Center, Cincinnati, OH 45267. An Equal Opportunity/Affirmative Action Employer.

ASSOCIATE PROFESSOR—NEUROCHEMISTRY: The Department of Pharmacology, Texas College of Osteopathic Medicine (TCOM), anticipates opening a 3-year, non-tenure-track position for an advanced Ph.D. with experience in molecular biology and toxicology with interest in the area of neuropeptides and their roles in the CNS. Salary plus benefits are negotiable. Send curriculum vitae, letter of recommendation, and references to: Prof. T. J. Schilling, TCOM Pharmacology, Fort Worth, TX 76109.

ASSOCIATE PROFESSOR—RESEARCH TRACK: Position available immediately for patch electrophysiology in the preparation and microperpete specialist to study transduction in olfactory receptor neurons. Thank you for your interest in this position. Applicants must be interested in research and be willing to work in a team approach to effect chemical changes in the environment and the development of new technologies. Salary: Negotiable. Send curriculum vitae, statement of research experience, and names of three references that includes the area of expertise to: Glubior S. Sembada, Special Projects, New York College of Osteopathic Medicine, Old Westbury, NY 11558. Telephone: 516-626-6927.

ASSISTANT PROFESSOR, RESEARCH TRACK: Position available immediately for patch electrophysiology in the preparation and microperpete specialist to study transduction in olfactory receptor neurons. Thank you for your interest in this position. Applicants must be interested in research and be willing to work in a team approach to effect chemical changes in the environment and the development of new technologies. Salary: Negotiable. Send curriculum vitae, statement of research experience, and names of three references that includes the area of expertise to: Glubior S. Sembada, Special Projects, New York College of Osteopathic Medicine, Old Westbury, NY 11558. Telephone: 516-626-6927.

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POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR OF VETERINARY SCIENCE. Department of Veterinary Science, Fort Valley State College seeks a D.V.M. or equivalent with postgraduate degree preferably Ph.D. to teach courses in veterinary technology program and conduct independent or collaborative research. Advise and recruit students. Salary commensurate with experience. Application deadline 30 August 1988 or until filled. Starting date 1 October 1988. Send curriculum vitae, official transcripts, and three reference letters to: Dr. Geoffrey Ithim, Chairman of Search Committee, Box 5787, Fort Valley State College, Fort Valley, GA 31030.

ASSOCIATE DEAN FOR RESEARCH—University of South Florida (USF) College of Medicine seeks a M.D./Ph.D. in medical discipline with record of funded research, experience in administration, graduate/medical student education to head college's research efforts. Must be eligible for appointment at professorial level. Telephone or written inquiries should be sent to: J. M. Judisch, M.D., USF College of Medicine, 12257, Los Angeles, FL 33612. Applications must be postmarked no later than 15 September 1988. Equal Employment Opportunity/Affirmative Action Employer.

ASSOCIATE PROFESSOR—PHARMACOLOGY AND NUTRITION. Tenure-track position open 1 July 1988. Candidate must have extensive experience in hormone pharmacology and physiology and a strong publication record. Experience with insulin physiology is preferred. Candidate required to teach in both medical and graduate pharmacology and nutrition programs. Applicant should submit curriculum vitae, bibliography, significant reprints, a statement of research plans, and three names for reference purposes to: Samuel F. Beaman, M.D., Professor and Chairman, Department of Pharmacology and Nutrition, University of Southern California, School of Medicine, MRR 112, Los Angeles, CA 90033. Applications will be considered until the position is filled. The University of Southern California is an Equal Opportunity/Affirmative Action Employer.


CHAIR—NEW DEPARTMENT OF GEOSCIENCES UNIVERSITY OF CALIFORNIA, IRVINE

The University of California at Irvine (UCI) invites applications for the position of Founding Chair of the planned Department of Geosciences. This position is the first of a number of new faculty appointments included in a long range commitment to develop a new department on this campus. The level of the appointment will be in the full professorial rank and the salary will depend upon the qualifications of the candidate and based upon the U.C. pay scale. Candidates must have demonstrated excellence in the specialization of research. Administrative experience is not required but is desired since the candidate will have the opportunity and challenge of building a new department in the U.C. system.

The Department is envisaged to focus on the more quantitative disciplines of the geosciences and to specialize in global studies. It will ultimately include a spectrum of areas with an emphasis on the effects of changes in the geosphere-biosphere. The initial growth will likely be in areas such as atmospheric modeling, meteorology and climatic changes, ocean dynamics, geophysics, and geochronology. Future expansion of the department will be into the areas of plate tectonics and seismology.

Please send a letter of application, curriculum vitae including research, teaching, and administrative experience, and names of five references to: Professor Myron Bender, Chair, Search Committee, Dean's Office, School of Physical Sciences, University of California, Irvine, CA 92717. This search will continue until filled; first consideration will be given to applications received before 1 December 1988. UCI is an Equal Opportunity/Affirmative Action Employer.

TISSUE CULTURE SCIENTISTS

CIBA-GEIGY's Agricultural Division has excellent opportunities for multi-faceted scientists in our genetic engineering and crop improvement program. Long recognized as one of the world's foremost producers of crop protection chemicals, we have made a major commitment to expanded biotechnology research at our new facility in Research Triangle Park, NC.

The scientists we seek will assist in the development and engineering of plants using a variety of techniques such as callus, suspension and protoplast cultures as well as plant regeneration and transformation. The program's goal is to develop plants with increased tolerance to environmental stress and greater resistance to disease and insect damage.

A BS or MS in plant science or a related field is required, as is 2-5 years of lab experience, preferably with the in vitro culture of major crop species.

You'll find that CIBA-GEIGY offers exceptional career support and advancement opportunities, as well as a competitive salary and generous company-paid benefits. Please forward your resume, including three letters of professional reference, in confidence, to: CIBA-GEIGY Corporation, Agricultural Division, Dr. Mary-Dell Chilton, P.O. Box 12237, Research Triangle Park, NC 27717. We are an equal opportunity employer.

Sr. Scientist, Protein Purification

If you're ready to break new ground in biotechnology, explore the opportunity to contribute to breakthroughs in pharmaceutical development at Schering-Plough. As a research-driven $2.7 billion company, we can offer you strong support and responsiveness to stimulate your best achievements.

You will join a bio-isolation team in our biotechnology division, developing methods to purify and characterize recombinant proteins from bacteria and mammalian cell cultures. The applications will be in human pharmaceuticals.

You must have a PhD in protein chemistry, biochemistry, or a related field, plus 0-5 years' experience in purification and characterization of proteins. Familiarity with HPLC, FPLC and conventional chromatographic techniques is also required.

We offer a competitive salary and excellent benefits. For immediate consideration, please forward resume, including salary history to: Mr. M. Urdanick, Schering-Plough Corporation, 1011 Morris Avenue, Union, NJ 07083. We are an equal opportunity employer.

Schering-Plough
RESEARCH SCIENTISTS

Central Nervous System Research

For more than a century, scientists at ELI LILLY AND COMPANY have developed innovative, high quality pharmaceutical products. In 1988, Lilly is investing over $500 million in research-and-development programs. More than 3,000 scientists at the company's Lilly Research Laboratories and Biochemical Development Divisions are pursuing creative research programs that involve many important health care needs.

To further build its research capabilities, Lilly is seeking self-motivated scientists to plan, organize, and manage programs directed toward understanding the biochemical basis of CNS disease and the development of novel therapeutic agents.

CNS Electrophysiologist

- Doctoral-level electrophysiologist who can advance our understanding of the basic mechanisms by which neurotransmitters, neuropeptides, and drug candidates exert their effects at the cellular, tissue and whole animal level.
- Should be proficient in single-unit recording, iontophoresis, and patch clamp techniques. Postdoctoral experience is preferable.
- The investigator's program should enhance our fundamental approach to the study of the disease process as well as provide insight into the mechanisms by which therapeutic agents produce their effects.

CNS Molecular Pharmacologist

- Doctoral-level scientist, with a background in biochemistry or pharmacology, and experience in receptor theory and radioligand binding to receptors.
- An understanding of cellular and tissue organization and neuroanatomy is essential.
- Experience in autoradiographic techniques and second-messenger coupling systems is desirable. Postdoctoral experience is preferable.

In addition, these scientists must have the leadership capabilities needed—technical, communication, interpersonal, and organizational skills—to build a research program. Entry level and salary will be based upon each candidate's experience.

Eli Lilly and Company is committed to scientific excellence. Lilly provides a stimulating professional atmosphere with many opportunities for collaborative, multidisciplinary research. The company offers an attractive total compensation program.

For prompt consideration, please forward your curriculum vitae to:
John W. Crooks, Manager
Ph.D. Recruitment (CNS)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285

Equal Opportunity Employer
DEPARTMENT OF ZOOLOGY
UNIVERSITY OF WASHINGTON

CELL BIOLOGIST

A tenure-track faculty position is available for a cell biologist. Those having research interests in extracellular matrix, cell adhesion, extracellular transport, cytoskeleton, or signal transduction are especially encouraged to apply. Appointment will likely be at the assistant professor level, although appointment at associate or full professor is possible under exceptional circumstances. Responsibilities include teaching at the undergraduate and graduate level, and research in areas appropriate to the individual's field of specialization. Applicants should submit curriculum vitae, three publications, statements of specific interests, and three letters of recommendation to: Dr. C. Laird, Chairman, Department of Zoology, University of Washington, Seattle, WA 98195, by 1 November 1988. Equal Opportunity/Affirmative Action Employer.

CHAIR, DEPARTMENT OF PATHOBIOLOGY,
School of Veterinary Medicine, The University of Pennsylvania. The University is seeking a highly qualified individual to provide leadership for the Department of Pathobiology. This department includes twenty-one full-time faculty and encompasses the teaching, research and service activities of the Laboratories of Avian Medicine, Microbiology, Parasitology, and Pathology in the School of Veterinary Medicine. Candidates should have experience in administration, a commitment to excellence in teaching, and a strong research program in molecular biology. A degree in veterinary medicine is desirable, but not essential. Nominations and applications should be sent to: Dr. Alan M. Kelly, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6051. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON, DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

The University of Nebraska College of Medicine is seeking a nationally recognized investigator to fill the position of Chairperson of the Department of Physiology and Biophysics. The candidate should have a Ph.D. or M.D. degree, a distinguished record in research in physiology which is currently active and funded, strong leadership qualities and a major interest in the education of health professionals. Interested applicants should submit curriculum vitae and the names and addresses of three references to: Office of the Dean, Chairman, Physiology and Biophysics Chairperson Search Committee, University of Nebraska College of Medicine, Room 5025, Wittson Hall, 42nd and Dewey Avenue, Omaha, NE 68105. The closing date for applications is 15 October 1988. An Equal Opportunity/Affirmative Action Employer.

COMPUTER SIMULATION/TOXICOLOGY

Position available immediately for Ph.D. (or equivalent) to develop biologically based computer simulation models. Models currently under development include: physiology based pharmacokinetics, biophysical mechanisms of toxicity, and chemical carcinogenesis. Solid background in chemistry/biochemistry/biology, with interest in applying these skills to computer simulation, desired. Simulation model development will complement ongoing and proposed laboratory studies. Publication of all results and presentation at national meetings strongly encouraged. Title and salary will be commensurate with background and experience. Interested individuals should send curriculum vitae, together with name and addresses of three references, to:

Ms. Lois Doncaster
Human Resources
NSI Technology Services Corporation
Environmental Sciences
101 Woodman Drive, Suite 12
Dayton, OH 45431

NSI Technology Services Corporation is an Equal Opportunity Employer.
Cell and Molecular Biology
POSTDOCTORAL POSITIONS

Postdoctoral positions in the areas of cellular and molecular aspects of development are available at the Worcester Foundation for Experimental Biology, supported by an NIH Training Grant and individual investigator awards. The faculty and their research interests are:

**Earl Bartl:** Enzymology of eukaryotic DNA replication.

**William Crain:** Gene expression during embryonic development.

**Grant Fairbanks:** Organization and function of erythrocyte and sperm plasma membrane.

**John Goodchild:** Chemical and therapeutic properties of antisense oligonucleotides.

**F. Rob Jackson:** Molecular genetic studies of behavior and the nervous system in *Drosophila* including studies of biological rhythms and neurotransmitter systems.

**Daniel Kilpatrick:** Transcriptional regulation of neuropeptide gene expression; opioid peptide gene expression and function in the testis.

**Elizabeth Luna:** Structure and regulation of cytoskeleton-membrane attachment during cell motility, adhesion and phagocytosis.

**Clare O’Connor:** Regulation of protein stability during gametogenesis.

**Thoru Pederson:** Transcription and RNA processing.

**Joel Richter:** Maternal mRNA expression in early Xenopus development; molecular mechanisms of adenovirus E1A transactivation.

**Alonzo Ross:** Nerve growth factor receptor, structure and function roles in normal and transformed cells.

**Greenfield Sluder:** Timing and molecular control of mitotic events during early development.

**Richard Vallee:** Biochemical, immunological and molecular biological analysis of microtubules and cell motility.

**Samuel Wadsworth:** Structure and function of *Drosophila* oncogenes, growth factors and receptors.

**Yu-li Wang:** Assembly and dynamics of actin and myosin in living cells.

**George Witman:** Molecular basis for flagellar movement; biochemistry of sperm maturation.

**David Wolf:** Diffusion and control of membrane regionalization; sperm maturation and capacitation.

**Paul Zamecnik:** Synthesis of modified oligonucleotides for chemotherapy.

**Carol Zlomek:** Membrane structure and cell polarity in early mouse development.

Send curriculum vitae and names of references to the faculty member(s) of interest, C/O Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545, USA.

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**ImmuLogic** is a growing company dedicated to the creation of novel therapeutic products which modulate the human immune system. We are employing state-of-the-art techniques and proprietary knowledge in immunology, biochemistry and molecular biology to develop products in the vaccine, allergy and autoimmune disease areas.

**Ph.D./M.D. CELLULAR IMMUNOLOGIST**

We are currently seeking a Cellular Immunologist to reinforce our established research team working on novel immunotherapeutic approaches to allergic diseases. A strong background and substantial record of achievement in cellular immunology research are required together with interest in or experience with human T/B cells.

ImmuLogic provides an outstanding working environment with state-of-the-art laboratory facilities in Cambridge, Massachusetts. We have a dedicated team of innovative scientists and an outstanding support network of academic advisors and collaborators. An active Post-Doctoral research program has been initiated and the publication of important research findings is positively encouraged and supported.

This position has an attractive remuneration and benefits package including equity participation through stock options.

**Please send curriculum vitae and list of publications and/or resume to:**

**ImmuLogic Pharmaceutical Corporation**
One Kendall Square, Building 600
Cambridge, MA 02139
Attn: Human Resources Department
positions open

CHIEF CLINICAL MICROBIOLOGIST: forty hours per week; 9 a.m. to 5 p.m.; $24,960 per year. Job requires a major field of study microbiology and 2 years experience in postdoctoral fellowship in clinical microbiology. Job also requires: (i) Postdoctoral fellowship should be through American Academy of Microbiology or equivalent and must include experience in bacteriology, mycology, mycobiology, virology, serology, and parasitology; (ii) fellowship must include training in specialized susceptibility testing of fungi, and mycobiology; culturing of mycoplasma, chlamydia, and viruses; and (iii) research experience in polyspecific bacteriology with an extensive carrier system as evidenced by one professional publication/ presentation. Job duties: Supervise and direct an expanding microbiology program which provides both in- and inter-state services. Services of laboratory include: bacteriology, mycobiology, mycobiology, virology, serology, and parasitology. Participate in College of American Pathologists (CAP) proficiency tests program. Perform special request test procedures. Serve as liaison between laboratory and clinicians. Conduct clinical research in in vitro susceptibility testing for new antimicrobials with or without the use of polysorbate 80 mycoplaste nanoparticle drug carrier systems for establishing Minimum Inhibitory Concentrations (MIC) values for clinical isolates.

Qualified applicants should send résumé and verification of educational background to: Mark Greene, M.D., Ph.D., Department of Immunology, SUNY at Albany, 1 University Avenue, Albany, New York 12222. Equal Opportunity/Affirmative Action Employer.

positions open

UNIVERSITY OF PENNSYLVANIA

SCHOOL OF MEDICINE

DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

PROTEIN CHEMISTRY LABORATORY

The Department of Pathology and Laboratory Medicine of the University of Pennsylvania School of Medicine has an opening for the director of the protein chemistry laboratory. The position offers opportunities for collaboration in research involving projects in the areas of immunology, cancer biology, immunology, candidates should have extensive experience in protein chemistry and familiarity with gas phase sequencers, oligonucleotide synthesis and research ineditors. Individuals with dependent and funded research projects will be preferred. Salary and level of appointment will be commensurate with the applicant's experience.

The position currently available is a tenure-track with the possibility of promotion. Salary and benefits vary with the seniority of the other may be at a more advanced level. This is one of the leading research programs in the area of clinical immunology and molecular immunology. Candidates engaged in theoretical or experimental analysis of any major problem in ecology or evolution will be considered. Postdoctoral experience is preferred. Senior applicants will begin in September 1989. Applicants should submit curriculum vitae, statement of research interests, and should arrive for at least three letters of reference to send to: Professor Richard V. Bowdinger, Department of Biology, University of Iowa, Iowa City, I A 52242.

The University of Iowa is an Equal Opportunity/Affirmative Action Employer. We encourage applications from women and minorities.

ECOLOGY AND EVOLUTION

The University of Iowa's Department of Biology is inviting applications for two TENURE-TRACK POSITIONS, expected to begin fall 1989. The positions are open to candidates with a M.D. or M.D./Ph.D. degree and a demonstrated ability in research. Specialization in molecular genetics, developmental biology, behavior, or paleontology is preferred. Successful candidates will contribute to developing independent research programs, and to participate in both medical and graduate teaching. Applications should include a curriculum vitae, a list of major research papers, a selection of reprints and pre-prints, a summary of current research, and future research plans, and the names of three individuals from whom letters of recommendation may be solicited. Applications and nominations should be sent to: Dr. Adrian J. Dunn, Ph.D., Department of Pharmacology and Therapeutics, SUNY-HE, P.O. Box 8000, Albany, New York 12210.

positions open

ENVIRONMENTAL SPECIALISTS

Limnologists, wetland and estuarine ecologists, environmental scientists. The St. Johns River Water Management District has current openings in applied research and research management for surface water restoration and preservation programs. Appropriate areas of specialization include limnology, aquatic, animal and estuarine ecosystem studies and research. Starting salaries are commensurate with experience and vary approximately $20,000 to $28,000. Bachelor's degree in limnology, biology, ecology, and related sciences required. Send résumé with ad by 23 September 1988 to: St. Johns River Water Management District, 6925 Dr. Bronner Drive, P.O. Box 1429, Palatka, FL 32178-1429. Equal Employment Opportunity/Affirmative Action/Veterans Preference Employer.

faculty and postdoctoral positions in pharmacology

The Department of Pharmacology and Therapeutics, Louisiana State University Medical Center-Shreveport invites applications and nominations for postdoctoral and tenure-track faculty positions in pharmacology. Applicants should have a Ph.D. or M.D. degree, and a demonstrated ability in research. Specialization in receptor mechanisms, neuropeptide research, behavioral pharmacology, or nervous-immune system interactions is preferred. Successful candidates will have the opportunity to develop independent research programs, and to participate in both medical and graduate teaching. Applications should include a curriculum vitae, a list of major research papers, a selection of reprints and pre-prints, a summary of current research, and future research plans, and the names of three individuals from whom letters of recommendation may be solicited. Applications and nominations should be sent to: Dr. Adrian J. Dunn, Ph.D., Department of Pharmacology and Therapeutics, SUNY-HE, P.O. Box 8000, Albany, New York 12210. The University is an Equal Opportunity/Affirmative Action Employer.

positions open

Faculty position

DELAWARE—Environmental Engineering. The Department of Civil Engineering at the University of Delaware invites applications for a tenure-track position in environmental engineering. The rank will depend on the qualifications and experience of the applicant. Experience in hazardous waste or wastewater treatment will be preferred. Major responsibilities include teaching both undergraduate and graduate courses and developing a strong research program. Successful candidate will have a Ph.D. degree and experience in research and teaching. Applications received by 30 November 1988 will be given first consideration; however, the search will continue until the position is filled. Applications should be sent to: Chair, Search Committee, Department of Civil Engineering, University of Delaware, Newark, DE 19716. The University of Delaware is an Affirmative Action/Equal Opportunity Employer.

positions open

BIOLOGY DEPARTMENT, UNIVERSITY OF SOUTH CAROLINA

POSTDOCTORAL FELLOWSHIPS IN PLANT BIOLOGY

Applications are sought for two tenure-track positions available in 1989. We are especially interested in individuals pursuing research in areas that focus on questions in plant biology. The specific field of research is open and could include areas from molecular to organismal biology. Applicants must demonstrate a productive, independent research program. A minimum of $20,000 in start-up funds will be provided: academic rank open. Please send curriculum vitae and names of three references by 1 December 1988 to: Dr. David J. Sweeney, Chair, Search Committee, Department of Biology, University of South Carolina, Columbia, SC 29208.

positions open

The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.
POSITIONS OPEN

FACULTY POSITION

Research position available at the instructor level for Ph.D. with background in histology and ultrastructure to participate in investigations in malignant hyperthermia. Applicants should have training and proficiency in use of transmission electron microscopy and immunocytochemistry to assess cell/tissue structure and function. Salary commensurate with education and experience. Applicant should submit curriculum vitae and three letters of recommendation to: Dennis F. Landers, M.D., Ph.D., Interim Chairman, Department of Anesthesiology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS, BIOMEDICAL ENGINEERING

The University of Southern California invites applications for two tenure-track faculty positions available 1 January 1989. Applicants must have a Ph.D. or an M.D. degree with experience in sensory physiology, bioensors, medical imaging, or laser applications in medicine. Duties include both teaching and research; appointees will be expected to establish his or her own research program. Rank and salary will be commensurate with qualifications.

Send résumé and the names of three references to:

H. K. Chang, Chairman
Department of Biomedical Engineering
University of Southern California
Los Angeles, CA 90089-1451
An Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF CALGARY
HEAD, DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS

The University of Calgary Faculty of Medicine invites applications and nominations for the position of Head of the Department of Pharmacology and Therapeutics. In this Faculty, pharmacology and therapeutics is taught within an integrated curriculum emphasizing problem-solving and a comprehensive approach to individual body systems. In recent years, there has been substantial development of biomedical research with support from government agencies and foundations including the Alberta Heritage Foundation for Medical Research.

The applicant must have a Ph.D., M.D., or equivalent degree, have demonstrated strong leadership and administrative abilities, be able to recruit outstanding scientists and teachers to the Faculty of Medicine, be recognized internationally for excellence in biomedical research and have a commitment to medical education.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applications and nominations, including curriculum vitae, a statement of research interests and academic goals, and names of three references, should be forwarded by 15 October 1988 to:

Dr. M. Watanabe
Dean, Faculty of Medicine
The University of Calgary
3330 Hospital Drive N.W.
Calgary, Alberta T2N 4N1

IMMUNOLOGIST: The Biology Department invites applications for a tenure-track assistant professorship in immunology beginning as early as January 1989, but no later than September 1989. Candidates should have at least 2 years of postdoctoral experience; teaching experience is also desirable. He/she will be expected to establish a vigorous research program (research start-up funds are available), and pursue funding for it. Teaching responsibilities include participation in the biology major's and/or minor's introductory courses, undergraduate and graduate courses in immunology, and the training of M.S. and Ph.D. students. Applicants should submit: curriculum vitae, list of publications and recent reprints, a statement of current and projected research and teaching interest, and have three letters of recommendation sent to: Dr. Robert Bast, Biology Department, Cleveland State University, East 24th and Euclid Avenue, Cleveland, OH 44115 by 7 October 1988. Cleveland State University encourages applications from qualified minority groups and women. Equal Opportunity Employer, M/F.

26 AUGUST 1988

A commitment to innovative research and new product development is the cornerstone of Johnson & Johnson and its newly formed R.W. Johnson Pharmaceutical Research Institute. Recognizing the tremendous potential of the biotechnology market, Ortho Biotech Research & Development Division is expanding its staff of top scientists to extend the areas of biotechnology research and discover new classes of drugs that will improve the quality of life.

Working as part of a small team, you should thrive on the high-risk, high-reward challenges of an entrepreneurial environment. You'll enjoy exceptional viability with senior management, have the backing and resources of a world-class health care organization, and the opportunity to interact with a dedicated team of applied scientists developing breakthrough products.

Principal Scientist

Requires PhD or equivalent in Biochemistry or allied field and 5-8 years' experience developing immunological/biochemical assays related to potential or existing therapeutics. Prior development of RIA, ELISA and HPLC assays necessary, as applied to protein products.

The successful candidate will supervise professional-level technicians and develop assays to measure potency and physio-chemical characterization of proteins. (Dept. 61A)

Sr. Associate Scientists

These openings require Master of Science or equivalent in bioanalytical area with 5 plus years of experience in bioanalytical analysis; or BS or equivalent with 7 plus years' experience. You must have demonstrated skills in design of assay methods, including writing protocols in standard SOP format, and working familiarly with protein methods.

The successful candidates will be responsible for scheduling and coordinating investigative assays for in-process testing as well as experimental and multi-arm stability study testing of protein products. You will troubleshoot assay problems and resolve by interacting with other research groups; modify, develop and write assay methods in SOP format; compile and write data summaries and reports for submission to Regulatory. (Dept. 61B)

Research Associate

Requires MS or equivalent in Biochemistry, Protein Chemistry or allied discipline or BS or equivalent and minimum of 2 years' experience. You must have done research involving the isolation and purification of proteins, preferably in an industrial environment.

You will assist in protein purification and biochemical analysis; collect, record and analyze data for report summary; interact with Ortho personnel at all levels as well as colleagues in experimental areas. (Dept. 61C)

We offer competitive salaries and the comprehensive benefits you would expect from a Johnson & Johnson Company. We urge you to forward your resume, including salary requirements, to: Mr. Frank Folio, Ortho Pharmaceutical Corporation, Dept. # as indicated above, P.O. Box 300, Raritan, New Jersey 08869-0602. An Equal Opportunity Employer, M/F.

A Lot More Than You Think
**Post-Doctoral Position in Neurobiology**

**Employer:** SYRACUSE UNIVERSITY

**Department:** Science and Technology

**Title:** Post-Doctoral Position

**Location:** Syracuse, New York 13244-1201

**Details:**
- **Research Area:** Neurobiology
- **Position:** Post-Doctoral Position
- **Location:** Central Nervous System and Immunology
- **Field of Research:** Neurotransmitters and Neurotransmission
- **Position Description:** The post-doctoral position is available for a scientist with expertise in neurotransmitters and their modulation. The candidate will work with Dr. James L. Brown in the Department of Biological Sciences, Syracuse University.

**Requirements:**
- A Ph.D. in a relevant field
- Experience in research on neurotransmitters and their modulation
- Strong background in experimental design and data analysis
- Ability to work independently and in a collaborative environment

**Application Process:**
- **Deadline:** October 31, 2023
- **How to Apply:** Submit a CV, a cover letter, and a statement of research interests to Dr. James L. Brown, Department of Biological Sciences, Syracuse University, Syracuse, NY 13244-1201. Inquiries should be sent to: James.Brown@syr.edu.
ROCKEFELLER FOUNDATION
AFRICAN DISSERTATION INTERNSHIP AWARDS

Doctoral students from sub-Saharan Africa are invited to apply to the Rockefeller Foundation for dissertation research support. The program, implemented with the African Academy of Sciences, Kenya, enables Ph.D. students enrolled in U.S. universities to return to Africa for extensive field research in areas relevant to economic development or poverty alleviation. Priority is given to research topics in the fields of agricultural, health and life sciences, but other proposals are welcome.

Applicants are responsible for arranging affiliation with an African institution able to provide needed research support, such as laboratory facilities, access to study sites, and technical advice. The candidate’s U.S. faculty adviser, the hosting institution in Africa, and the funding agency with primary responsibility for financing the student’s graduate work must all endorse the application.

Deadlines for applications are October 1, 1988 and March 1, 1989. Preliminary inquiries are encouraged to determine the appropriateness of the research topic and the proposed institutional setting in Africa. Candidates should apply well in advance of the expected field work starting date.

For a full description of the competition and the application requirements, write to African Dissertation Internship Awards, The Rockefeller Foundation, 1133 Avenue of the Americas, New York, New York 10036.

SAINSBOURY LABORATORY
JOHN INNES INSTITUTE
POST-DOCTORAL AND RESEARCH ASSISTANT POSTS

Engineering Plant Transposons for the Isolation of Tomato Disease Resistance Genes

The Sainsbury Laboratory has been established at the John Innes Institute, Norwich to undertake basic research in molecular plant pathology with the eventual aim of developing disease resistant crop plants. It has been set up with a grant from David Sainsbury through his Gatsby Charitable Foundation.

Applications are invited for post-doctoral and research assistant positions to engineer and evaluate the use of transposon tagging systems for the isolation of plant disease resistance genes. The research effort will initially consist of (i) characterization and manipulation of engineered transposon behaviour in transformed plants and (ii) molecular genetic analysis of disease resistance genes and mechanisms in tomato with the goal of cloning specific genes by transposon tagging.

Applicants should state their preference. Those interested in area (i) will not be at a disadvantage if they lack prior experience of plants provided they have experience in the molecular genetic analysis of other systems eg., prokaryotes, yeast or Drosophila. Applicants for area (ii) would preferably have prior experience in some aspect of plant/microbe interactions. For one of the research assistant positions, experience in plant tissue culture would be an advantage.

Salaries will be in the range £9865 – £15720 for the post-doctoral positions, and £8675 – £11680 for the research assistant posts. Contributory superannuation. Equal Opportunities Employer.

Several positions are available immediately. Further positions will become available in the summer of 1989 when a new laboratory building will be complete.

Applications, including full CV and the names of two referees, should be sent to the Personnel Officer, John Innes Institute, Colney Lane, Norwich, United Kingdom, NR4 7UH, as soon as possible, preferably to have arrived by the end of September 1988. Reference SL/J.

Further details can be obtained from Dr. Jonathan Jones, the Sainsbury Laboratory, John Innes Institute, Colney Lane, Norwich, United Kingdom, NR4 7UH.
Positions Open

Instrument Development Chemist

We have an interesting position available for a person with these qualifications:

- Ph.D. in chemistry or biochemistry
- HPLC and LC experience
- Instrumentation skills
- Demonstrated writing ability
- Outgoing personality

For immediate consideration, call or send résumé to: Joe Tehrani, Iaco, Inc., P.O. Box 5347, Lincoln, NE 68505. Telephone: 44-4 60231.

Equal Opportunity Employer

Junior or Senior Faculty Position
Molecular Pathogenesis

The Department of Microbiology and Immunology invites applications for a junior or senior level, tenure-track position focusing on significant problems in bacterial pathogenesis using genetic and molecular approaches. Senior candidates should have strong records of research, with sustained progress in growth and development. Junior candidates will be expected to develop high quality, independent research programs with long-term growth potential. Teaching responsibilities will be based on a quality rather than quantity, include medical, dental and graduate students. A large Center of Excellence grant has resulted in establishment of a Molecular Resource Center within the Department featuring state-of-the-art facilities for oligonucleotide synthesis, peptide synthesis, hybridoma antibody production, amino acid analysis, protein sequencing, molecular graphics, and flow cytometry. Funds for the initiation of research programs will be available and salaries will be highly competitive. Applications should consist of curriculum vitae, copies of several recent publications, a brief statement of future research goals and three letters of reference to be sent to: Dr. Terrance G. Cooper, Department of Microbiology and Immunology, The University of Tennessee, Memphis, 858 Madison Avenue, Memphis, TN 38163. Applications will be received until 1 October 1988 or until the position is filled thereafter. The University of Tennessee is an Affirmative Action/Equal Opportunity Employer.

Molecular Biologist Postdoctoral Research Fellow

An individual is needed immediately to assume responsibility for an ongoing research program, the objective of which is to clone and characterize the receptor for interferon-gamma. The work will initially involve collaboration with Dr. Richard Axel, Columbia University. Experience with molecular cloning is essential, preferably pertaining to a receptor. New laboratory space and technical support, a highly competitive salary and fringe benefits will be provided. Apply with curriculum vitae, bibliography, brief statement of experience and the names of three references to: Dr. Stephen W. Russell, Wilkinson Laboratory, University of Kansas Cancer Center, 39th and Rainbow, Kansas City, KS 66103.

Molecular Biology

The University of Notre Dame has positions available at all levels of appointment including endowed professorships, for faculty with research interests in the general area of molecular biology. Preference will be given to applicants with demonstrated interest and expertise in research of molecular aspects of eukaryotic membrane structure/function and/or of molecular oncology. This Department offers outstanding opportunities with respect to modern facilities and technical support. Current faculty and staff in the chemical/biochemical/molecular biology area provide a firm base for interaction and support in the development of vigorous research programs. Interested individuals should submit a current curriculum vita including bibliography, a statement of research interests, and three letters of reference to: Molecular Biology Search Committee, Department of Chemistry, University of Notre Dame, Notre Dame, IN 46556. The deadline for receipt of all materials is 15 November 1988. The University of Notre Dame is an Affirmative Action/Equal Opportunity Employer.

Postdoctoral Fellow
G.D. Searle — Washington University

The Department of Central Nervous System Diseases Research at G.D. Searle and Company, has openings in the areas of neurobiology and pharmacology at Washington University for post-doctoral fellows. This research program offers a unique opportunity to interact and work with the scientists who are doing basic and clinical research on the physiology and pharmacology of the nervous system. The program offers post-doctoral fellowships with an anticipated duration of two to three years. The application deadline is September 30 or until positions are filled. Applications should be sent to: Dr. Richard Rose, Chairperson, Department of Physiology, University of Notre Dame School of Medicine, Grand Forks, ND 58201. The University of Notre Dame is an Equal Opportunity Affirmative Action employer.

Assistant Professorships in Physiology

The Department of Physiology at the University of North Dakota School of Medicine is currently soliciting applications for two tenure-track positions at the Assistant Professor level. A Ph.D. or M.D. degree, postdoctoral experience, publications, and the ability to obtain extramural support are essential. Some teaching experience is highly desirable. Each individual must have a strong commitment to medical and graduate education and to conducting an independent research program. Preference will be given to applicants in the area of neuroscience and cardiovascular physiology who apply molecular biological techniques to their research. Special consideration will also be given to those individuals who have a research interest in aerospace medicine. Salary is negotiable based on credentials. Applications should include a current curriculum vita with bibliography and the names of at least three references. Application deadline is September 30 or until positions are filled. Materials should be sent to Dr. Richard Rose, Chairperson, Department of Physiology, University of North Dakota School of Medicine, Grand Forks, ND 58201. The University of North Dakota School of Medicine, Grand Forks, ND 58201, is an Equal Opportunity Affirmative Action employer.

Electrophysiologist Cardiovascular Pharmacology

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of novel therapeutic agents for the treatment of cardiovascular and infectious diseases. We currently have an exceptional opportunity for an experienced research scientist to join our Pharmacology Department.

You will be responsible for conducting both intracellular microelectrode experiments on excitable tissues and patch clamp experiments on isolated cells. Data analysis and report writing will be required.

Qualified candidates should have B.S. (M.S. preferred) and a minimum of 2 years related research experience.

In addition to an excellent starting salary and comprehensive benefits package, we can offer the opportunity to pursue a stimulating and rewarding career. For confidential consideration, please submit your resume to: The Squibb Institute for Medical Research, Human Resources Department 729; PO. Box 4000, Princeton, N.J. 08543-4000. An equal opportunity employer.

SQUIBB
Where science comes to life.
RESEARCH ASSOCIATE PROTEIN CHEMISTRY

Amgen is an innovative and dynamic organization producing products for human health care through applied biotechnology. Our leadership in the development of Erythropoietin and other products has placed us firmly at the forefront of the industry. As a result of our continued growth we have an immediate opportunity for a Research Associate in our Protein Chemistry Group.

Qualified candidates must have a BS or MS in Chemistry, Biochemistry, Engineering or Physics and 1-2 years’ experience with at least one of the following physicochemical techniques of protein analysis: fluorescence, phosphoresence or circular dichroism, FT-IR or analytical ultracentrifugation. Familiarity with PC based computers is essential. Responsibilities for this position will include biochemical and biophysical protein characterization and instrument maintenance.

Amgen offers an exciting and challenging research environment as well as an excellent compensation and benefits package. Amgen is located about an hour’s drive northwest of Los Angeles in the scenic Conejo Valley.

Qualified applicants should send a resume, including references, in confidence to:

Recruitment, Dept. #306A
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer

CELL BIOLOGIST/ASSISTANT PROFESSOR

University of Pennsylvania

Department of Physiology and the Institute for Environmental Medicine of the University of Pennsylvania Medical Center seek Cell Biologist for a tenure-track appointment as Assistant Professor. Research areas of special interest include lipid-protein interaction, endocytosis, secretion, epithelial cell differentiation, macromolecular synthesis, and lipid peroxidation. Guaranteed salary support and generous start-up funds are available. Deadline for application is December 15th, 1988. Send cv. and statement of research interest to: Cell Biology/Asst. Professor, Search Committee, c/o Maureen Doran, Executive Assistant, Institute For Environmental Medicine.

University of Pennsylvania
1 John Morgan Building
36th & Hamilton Walk
Phila., PA 19104-6068

The University of Pennsylvania is an equal opportunity/affirmative action employer.

EXECUTIVE DIRECTOR

NORTH CAROLINA SUPERCOMPUTING CENTER

The Executive Director will be responsible for planning, developing and managing a state supported state-of-the-art Supercomputing Center and Institute in the Research Triangle Park, North Carolina. Responsibilities include stimulating interest in supercomputing to establish North Carolina as a major, nationally recognized R&D center and develop and implement technical programs for advanced information processing on supercomputers. Additional responsibilities include ensuring the availability of appropriate software in the facility, and the selection of the appropriate staff of the Institute, and the appropriate liaison between the staff and facility users.

The Executive Director will serve as Chairman of the Technical Advisory Council and will secure and maintain the active support of the supercomputing community. Additional responsibilities include developing and coordinating appropriate research affiliates programs and activities. The Executive Director will prepare an annual operating budget, develop appropriate budget reporting and cost-control systems and negotiate with contractors and vendors.

The ideal candidate will have demonstrated managerial and administrative skills and experience within a supercomputing environment. An advanced degree is desirable.

A competitive salary and benefits package will be offered to the Executive Director and staff of the Supercomputing Center. The Search Committee will begin reviewing responses by Oct. 1, 1988. Qualified candidates may apply by sending a resume and cover letter (including salary history) to:

Search Committee
North Carolina Supercomputing Center
P.O. Box 12732
Research Triangle Park, N.C. 27709
POSITIONS OPEN

MOLECULAR BIOLOGY SCIENTIST—PRODUCT DEVELOPMENT

We are seeking a recent Ph.D. or experienced M.S. in molecular biology including isolation and hybridization of nucleic acids, RFLP analysis, and familiarity with non-radioactive southern blotting and related areas in non-profit service and research organization. Consultation with nationally recognized investigators working in immunology and immunogenetics is available.

Send curriculum vitae and other particulars to: Personnel Department, The Blood Center of Southeastern Wisconsin, 1701 W. Wisconsin Avenue, Milwaukee, WI 53233.

Equal Opportunity Employer

DEPARTMENT OF MICROBIOLOGY AND PUBLIC HEALTH, AND MSU-DOE PLANT RESEARCH LABORATORY MICHIGAN STATE UNIVERSITY BIOMOLECULAR SCIENCE AND TECHNOLOGY: PLANT-MICROBE INTERACTIONS

The Department of Microbiology and Public Health and the MSU-DOE Plant Research Laboratory have available positions for Ph.D. or M.S. students at the ASSISTANT PROFESSOR level. Applications are being sought from individuals who propose to establish a research program that will use molecular approaches in the investigation of plant-microbe interactions. The Plant Research Laboratory is operated under a contract from the U.S. Department of Energy and provides a stimulating environment and research facilities for research. Generous laboratory space and set-up support will be provided. An ongoing allocation of research funding is available for the new position. Initial participation in teaching will be at the graduate level.

Applicants must have postdoctoral research experience with demonstrated productivity and evidence of potential for independent and innovative research. In order to assure consideration, applications should preferably be received by 1 November 1988. Send curriculum vitae, and a description of research to: Dr. Jonathan Walton, Chairman, Search Committee, MSU-DOE Plant Research Laboratory, Michigan State University, East Lansing, MI 48824. Telephone: 517-353-6855. Michigan State University is an Equal Opportunity/Affirmative Action Employer.

OBSERVATORY PROGRAMMER

A programmer is needed at the Joint Astronomy Centre in Hilo, Hawaii. The Centre operates a 45-inch, the largest subtended mirror and infrared telescopes on behalf of the British, Canadian, and Dutch governments. The vacancy is for a software expert in the fields of telescope control, data acquisition and data reduction on the many VAX/VMS computers at the telescopes and in the centre. It is essential that applicants have experience with FORTRAN 77 and be responsible in their experience and understanding of real-time systems (ideally of telescope control and of the ADAM environment). An astronomical background would be an added advantage as there is the possibility of some front-line research as part of this post. Suitable qualifications would be a Ph.D. in computer science, astronomy, or physics, or equivalent work experience. Applicants should submit a full curriculum vitae and three letters of reference to: M. A. Johnston, Joint Astronomy Centre, 665 Komoana Street, Hilo, HI 96720 to arrive before 10 September 1988.

An Equal Opportunity Employer

The University of Michigan, Department of Pediatrics, Division of Pediatric Hematology/Oncology is seeking a Ph.D. or M.D. for a position with 50% academic and 50% research. Candidates should have a Ph.D. in an applicable basic science background. Please contact: Dr. Edward A. Havell, Department of Pediatrics, Division of Pediatric Hematology/Oncology, F6515 Mott Children's Hospital, University of Michigan Medical School, Ann Arbor, MI 48109. The University of Michigan is a Non-discriminating Affirmative Action Employer.

POSITIONS OPEN

NMR FACILITY MANAGER. The College of Basic Sciences at Louisiana State University is seeking applications for the position of Manager of the NMR Facility (Research Associate IV). The position requires a B.S. with 5 years of experience in the maintenance and operation of high-resolution NMR spectrometers; M.S. or Ph.D. in chemistry or biochemistry. Duties include scheduling, supervising users and operating a Bruker AM400 and 300 MHz NMR spectrometers and associated instrumentation. Purchase of a 500-MHz instrument is expected in 1988. Experience in 2D techniques required and a knowledge of RF electronics is preferred. Send a résumé and three letters of recommendation to: Professor Kathleen Morden, Louisiana State University, Department of Biochemistry, 322 Choppin Hall, Baton Rouge, LA 70803.

The Anatomy Department of the Medical College of Ohio has openings for NEUROBIOLOGISTS who are studying neural organization and/or development at the cellular or molecular level. Positions may be tenured or tenure-track with teaching responsibility in either gross anatomy, microanatomy, or neurobiology. Applicants for assistant professor should have demonstrated the ability to establish an independent and funded research program. Applicants for more senior positions should have the capacity to establish and expand ongoing research programs. The Medical College of Ohio offers an excellent research environment and very competitive salaries and start-up funds. Faculty hired in the upcoming year will join a growing neuroscience program and will be expected by subsequent recruitment. Forward your curriculum vitae and the names of three references to: Dr. Robert W. Rhoades, Chairman, Anatomy and Neurosciences, Medical College of Ohio, C.S. 10008, Toledo, OH 43699. Consideration of applications will begin 1 December 1988. Equal Opportunity Employer.

Postdoctoral positions available for individuals interested in NEUROPHYSIOLOGICAL AND NEUROANATOMICAL STUDIES of the gustatory system. Areas of emphasis include: sensory-motor integration of gustatory signals and oral receptors, receptive field organization of gustatory neurons, gustatory-somatosenso- ry interactions, neurochemical mechanisms of taste pathways. Opportunities exist to collaborate with one or a combination of three investigators. Experience in neurophysiology or neuroanatomy preferred, experience in immunohistochemical staining procedures or intracellular recording techniques welcome. Stipend commensurate with NIH levels of support. Send curriculum vitae and statement of research interests to: Dr. J. Travers, S. Travers, or M. Whitehead, Department of Oral Biology, College of Dentistry, The Ohio State University, Columbus, Ohio 43210. Equal Opportunity/Affirmative Action Employer.

Immediate opening for a PLANT PHYSIOLOGIST to work in the Physiology Program at the Kennedy Space Center. Candidates must hold a Ph.D. in plant physiology with a strong emphasis in biochemistry and/or cellular biology and at least 5 years of research experience. The candidate will conduct in-house research on the effects of space environment on plant growth and metabolism and act as coordinator of research grants at the Kennedy research institutions sponsored by the NASA Space Biology Program. Submit letter of application and curriculum vitae by 16 September 1988 to: J. R. Pulko

Kennedy Space Center, FL 32899

Equal Opportunity Employer

POSTDOCTORAL FELLOW—PLANT MOLECULAR BIOLOGY

A position is available immediately for a postdoctoral fellow to study novel mechanisms regulating of enhanced gene expression in plants through recombinant DNA techniques and genetic transformation of plants. Experience with recombinant DNA techniques is required. Knowledge of plant tissue culture is highly desirable. Send curriculum vitae including a detailed summary of research experience, M.S. or Ph.D. degree, four letters of reference that three letters of recommendation be sent to: Dr. Robert Thornburg, Department of Biochemistry and Biophysics, Iowa State University, Ames, IA 50011. ISU is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE—Biologic Research—West Haven, Connecticut. Investigate subcellular mechanisms involved in secretion of macromolecular substances and proteins from prostatic cells of stomachs of laboratory animals. Isolation of paracel cells requires complex biochemical and cellular biological techniques. Skills in measurement of protein yields, parametric estimation, complex analysis of sequential data, and the ability to interpret mechanisms of subcellular modular processing are required. Five-day week, 40 hours, salary $20,000 per year. Applicants send résumé to: Job Service Technical Unit Connecticut Department of Labor 260 Polly Hill Road Wethersfield, CT 06109 Refer to Job Order #3024821

POSTDOCTORAL FELLOW

POSTDOCTORAL POSITIONS are available in a comprehensive training program on calcium, sodium and potassium channels, G protein coupling to ionic channels, and glutamate receptors. Methods include cDNA cloning, mRNA expression in oocytes and other eukaryotic cell systems, gene transfer, recombinant protein expression, immunoblotting, patch clamping, two-electrode voltage clamp, RNAse protection experiments, receptor autoradiography, single cell calcium flux measurements, and fluorescence correlation and resonance fluorescence. Applicants must be citizens or non-citizen nationals of the United States or have been lawfully admitted for permanent residence at the time of appointment, have experience in either electrophysiology or biochemistry, and a commitment to research in excitable membrane proteins. Send résumé and addresses for three letters of reference to: Arthur M. Brodoff, M.D., Ph.D., Professor and Chairman, Department of Physiology and Molecular Biophysics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. We are an Equal Opportunity Employer.

POSTDOCTORAL FELLOW

A position exists for a postdoctoral fellow interested in studying the roles of interferons, interleukins and TNF in resistance to bacterial and malignant diseases. Applicants should have basic knowledge of immunobiology and a background in molecular biology.

The Trudeau Institute is a private, not-for-profit, basic research institution located on the edge of Saranac Lake and 10 miles from Lake Placid, New York. Subsidized institute housing is available.

Send curriculum vitae and names of three references to: Dr. Edward A. Havell

Trudeau Institute, Inc.

Saranac Lake, NY 12983

PHYSICS RESEARCH SCIENTIST, 40 hours per week, 8 a.m. to 5 p.m., $42,245 per year. Must have Ph.D. in physics theoretical/experimental applications background. Will design, fabricate and operate repetitive flashboards for 120- to 400-keV light sources for UV induced photochemistry. Requires general knowledge of high frequency and high power laser physics. Additional stimulation of photochemical reactions. Knowledge of physics of vacuum breakdown, surface chemistry, non-linear laser self-focusing and its applications, electrolytic solution behavior under high frequency fields, Osanger-Kim theory, glow, corona initiated radial discharges, discharge magnetic stabilization, Penning ionization, Fermi resonance, quantum and Dray-vesteen electron energy distribution functions. Will write contract proposals. Must have obtained contracts through such proposals. Submit resumes to: New Mexico Department of Labor, 501 Mountain Road, NE, Albuquerque, NM 87103. Job Order #178141.
University of Pittsburgh

DEAN, SCHOOL OF DENTAL MEDICINE

The University of Pittsburgh seeks applications and nominations for the position of Dean, School of Dental Medicine. The School is one of six schools of the health sciences on the campus of the University and its adjoining affiliated hospitals. The School currently admits an entering class into the DMD program of 78 students. It operates a one-year program in dental assisting and a two-year program in oral hygiene, involving 80 students. The faculty of the School provide instruction in the basic sciences to students of other schools of the health sciences. There are 60 students studying for master’s or PhD degrees or certification in Anatomy, Histology, Maxillofacial Reconstruction, Microbiology, Oral Medicine, Oral Pathology, Oral Radiology, Orthodontics, Pediatric Dentistry, Periodontics, Pharmacology, or Prosthodontics. The annual expenditures of the School for instruction, research, and clinical service total more than $14,000,000.

The new dean will be expected to lead the School toward more intensive research efforts in both the clinical and basic sciences and to closer collaboration with the other health sciences schools in the specialties related to the head and neck.

Candidates must have had substantial experience in at least one of the fields of study at a level equivalent to a full professorship. Experience as an investigator in clinical or basic research will be especially valued.

Nominations or resumes should be sent before October 15, 1988, to: Beaufort B. Longest, Jr., PhD, Chairman Search Committee for Dean School of Dental Medicine A-635 Crabtree Hall University of Pittsburgh Pittsburgh, PA 15261

An equal opportunity, affirmative action employer

Glaxo

GLAXO INSTITUTE FOR MOLECULAR BIOLOGY S.A.

The Geneva biotechnology research unit of the largest U.K. pharmaceutical group has a vacancy for:

ANIMAL-CELL FERMENTATION SCIENTIST

We are looking for a suitable candidate with experience of pilotplant scale animal cell culture to work independently within a group with wide experience of fermentation, particularly of recombinant organisms. A background in animal cell physiology would be an advantage. The ideal candidate would be expected to have research experience at postdoctoral level in a relevant discipline though other candidates with a proven track record in this field are also encouraged to apply.

A MICROBIOLOGIST POST-DOCTORAL POSITION

To work on the biochemical genetics of pathogenic fungi. A strong background in microbiology, biochemical genetics or molecular biology is required.

The Glaxo Institute for Molecular Biology provides a molecular basis for discovering effective new medicines. Projects include viral and fungal therapeutics, inflammatory diseases, and regulation of cell proliferation and differentiation.

The Institute has a staff of over one hundred, grouped in small teams of specialists from several domains of modern biology. We are part of the Glaxo Group – one of the largest pharmaceutical companies in the world – which has an outstanding reputation for the quality of its research and products. We offer an excellent salary and benefits package, with opportunities for career development in one of the most attractive parts of Europe.

If you are interested in either of these positions, please send your curriculum vitae with a list of publications and the names of three references to: Rita Gloor, Personnel Manager, GLAXO IMB SA, 46, route des Acacias, 1211 Genève 24, Switzerland.
U.S. Department of Energy

POSTGRADUATE RESEARCH PROGRAMS

Toxicology
Fossil Energy
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Economics/ Energy Policy
Artificial Intelligence

• Research at national laboratories
• Stipends $19–35,000 depending on degree, program, research area
• Recent graduate degree
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RESEARCH SCIENTIST AND RESEARCH ASSOCIATE
MOLECULAR & CELLULAR BIOLOGY

Amgen, a recognized leader in the biotechnology industry, has immediate opportunities for a Research Scientist and a Research Associate to participate in the characterization, cloning and expression of hematopoietic growth factors.

Research Scientist Molecular Biology Dept. 333: Qualified candidates for this position must have a Ph.D. and a minimum of 2 years’ postdoctoral experience in the expression of recombinant protein in mammalian and prokaryotic systems.

Research Associate Bone Marrow Culture Dept. 334: Candidates for this position must have a BS or MS and a minimum of 1 years’ experience in bone marrow and tissue culture. Familiarity with a variety of colony forming assays is essential. Some experience in molecular biology is desirable.

Amgen offers an excellent compensation and benefits package as well as a stimulating and challenging research environment.

Qualified applicants should send a c.v. or resume, including references, in confidence to:

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

ASSOCIATE DEAN FOR RESEARCH AND BASIC SCIENCES

We seek an individual with proven abilities in biomedical research and administration to compete for the position of Associate Dean for Research and Basic Sciences at the University of Kentucky College of Medicine.

This individual will be responsible for all aspects of research and related training programs for the College and co-ordination of these efforts with related Medical Center and University-wide activities. The Associate Dean also has direct administrative line authority for all basic science programs. Prerequisites include a Ph.D. and/or M.D. degree and a strong record of achievement in research and administration.

Please forward letters of inquiry, c.v./bibliography, and the names of three references from whom recommendations can be solicited no later than September 9, 1988 to:

Dr. Thomas C. Vanaman
Chairman, Search Committee
Department of Biochemistry
University of Kentucky
MSB 13 Medical Center
Lexington, KY 40536-0084
800-233-5548

Salary range is equivalent to and competitive with other institutions and will depend on prior experience. Position is available immediately.

An Equal Opportunity/Affirmative Action Employer.
Genentech, Inc., a successful pharmaceutical company that utilizes recombinant DNA technology, is currently seeking Research Assistants in the following areas:

**Protein Therapeutics**

The successful candidates will hold a BS/MS or PhD in Physical Chemistry, or Pharmaceutical Chemistry with a heavy emphasis on physical chemistry techniques. Knowledge with proteins and a fundamental experience in physical or analytical biochemistry is desired.

**Drug Delivery Systems**

The qualified candidates will have experience in radiolabeling, receptor autoradiography, and protein chemistry. Knowledge with quantitative protein and receptor autoradiography, DNA/RNA hybrid techniques, and radioimmunoassay is essential. Requires a BS/MS or PhD in Physical Chemistry, or Pharmaceutical Chemistry with a heavy emphasis on physical chemistry techniques. Knowledge with proteins and a fundamental experience in physical or analytical biochemistry is desired.

**Research Assistants (Neuroscientist)**

RESEARCH SCIENTIST

The position offers excellent salary and benefits package. The candidate will be expected to develop and test novel concepts in CNS disorders. Requires a BS/MS or PhD in Physical Chemistry, or Pharmaceutical Chemistry with a heavy emphasis on physical chemistry techniques. Knowledge with proteins and a fundamental experience in physical or analytical biochemistry is desired.

**Research Assistants (Pharmaceutical Chemistry)**

The position offers excellent salary and benefits package. The candidate will be expected to develop and test novel concepts in CNS disorders. Requires a BS/MS or PhD in Physical Chemistry, or Pharmaceutical Chemistry with a heavy emphasis on physical chemistry techniques. Knowledge with proteins and a fundamental experience in physical or analytical biochemistry is desired.
POSTDOCTORAL ASSOCIATE IN MOLECULAR CARCINOGENESIS TO CONDUCT RESEARCH IN REGULATORY MECHANISMS DURING TUMOR PROGRESSION

Project will investigate cis- and trans-regulatory elements controlling expression of the Ha-ras oncogene during two stages. Background, design in molecular biology, or recombinant DNA and cloning, or cell culture, or DNA-binding proteins. Position requires Ph.D. or M.D. in molecular biology, or recombinant DNA technology. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL ASSOCIATE immediately available to study the molecular biology of malaria. Projects include the isolation and characterization of proteins essential for the development of Plasmodium falciparum. Experience in molecular biology, genetic engineering, biochemistry, or other related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Experience in mammalian cell culture and protein isolation is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITION available immediately for study of growth factors and their receptors. Experience in molecular biology, biochemistry, or related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Projects include the isolation and characterization of proteins essential for the development of Plasmodium falciparum. Experience in molecular biology, genetic engineering, biochemistry, or other related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

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POSTDOCTORAL POSITIONS in genetic engineering. Experience in molecular biology, biochemistry, or related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Projects include the isolation and characterization of proteins essential for the development of Plasmodium falciparum. Experience in molecular biology, genetic engineering, biochemistry, or other related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Experience in mammalian cell culture and protein isolation is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in genetic engineering. Experience in molecular biology, biochemistry, or related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Projects include the isolation and characterization of proteins essential for the development of Plasmodium falciparum. Experience in molecular biology, genetic engineering, biochemistry, or other related fields is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.

POSTDOCTORAL POSITIONS in molecular biology and physiology. Experience in mammalian cell culture and protein isolation is desirable. Send curriculum vitae and names of three references to: Dr. J. Michael Eckhard, 3681 Park Avenue, New Haven, CT 06510.
**SENIOR MOLECULAR VIROLOGIST**

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St. Luke's/Roosevelt Hospital Center is one of the largest voluntary hospitals in New York and an affiliate of the Columbia University College of Physicians and Surgeons. We currently seek a professional capable of undertaking responsibility as both Chief Executive Officer of the Hospital Center's Research Institute and Associate Dean for the Hospital Center's affiliation with the College of Physicians and Surgeons. Qualifications are M.D. or Ph.D., and a minimum of ten years of research experience and appropriate administrative experience.

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positions open

postdoctoral research associate or senior postdoctoral research asso-
ciate to continue research in the general area of Gal anionic, free radical chemistry/biology as it relates to human nutrition. Specific areas of interest include lipid peroxidation and antioxidants as well as stress induced by envi-
ronmental toxins, and the detection of free radicals/free radical damage in vivo. A strong background in meca-
nistic biochemistry or chemistry is required. Experience with handling animals (e.g., preparation of chondria or hepatocytes) or with cell cultures is highly desirable. This position will be in the Pennington Bio-
medical College, a major new facility of the Louisiana State University system with the mission of improving human health through basic research in the nutrition sciences. Applicants should send a complete curriculum vitae and have at least three letters of reference sent directly to: Dr. Daniel F. Church or Dr. William A. Pryor, Pennington Biomedical Research Center, 6400 Per-
kins Road, Baton Rouge, LA 70808. LSU is an Affirmative Action Employer.

positions open

postdoctoral research position funded by 4-year NIH grant: Functional Mapping of Associative Learning in Rat Brain. Research applies 2-
deoxyglucose method with behavioral and electrophysi-
ologic techniques. Seeking neuroscientist familiar with rat
neuroanatomy, computers and laboratory instruments. Min-
orities are encouraged to apply. Send curriculum vitae, names of three references, and letters of recom-
 mendation to: Dr. Edward Doughtery, USDA, Insect Pathology Laboratory, Room 214, Building OILA, BARC-West, Beltsville, MD 20705. Tele-

positions open

postdoctoral surgical researcher

West Haven, Connecticut. Conduct research in cancer causation and development through observation, experi-
mental treatment and surgery on laboratory animals. Establish and maintain laboratory. Research on neu-
specific construction of genetic constructs for expression of foreign genes. Experience with baculovirus expression vectors pre-

positions open

professor and head
department of neurosurgery

Applications are being solicited for the position of tenured professor and head of the Department of Neu-
surgery, University of Minnesota Medical School, and Chief of the Neurosurgery Service of the University of Minnesota Hospital and Clinic, Minneapolis, Minnesota. The candidates
shall be Board-eligible, and be Board-certified in Neurosurgery or its equiv-
alent. We seek an individual who has demonstrated experience and skill to provide leadership in administra-
tion, research, service, and teaching of medical, graduate, and allied health students. This position will be available 1 July 1988. Submit letter of application, curriculum vitae, and names of three references by 31 October 1988 to: John S. Najarian, M.D., Chairman, Neurosurgery Search Committee, University of Min-
nesota Medical School, 213 19th Ave SE, Box 195 UMC, Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity Employer and Employer and specifically invites and encourages applications from women and minorities.

protein sequencer operator

HHMI Protein Chemistry Facility at Duke seeks proficient operator for ABI 470A/477A protein sequenc-
ers. Prior experience in HPLC purification of peptide fragments for sequencing and familiarity with chromatography data systems is helpful. Basic knowledge of amino acid analysis and experience with HPLC, DNA and peptide synthesis, and some HPLC. Competitive salary and benefits. Available 1 September 1988. Contact: Richard Hendrick, Biochemistry, Box 9080, Duke University Medical Center, 321 CARL Building, Durham, NC 27710. Telephone: 919-684-5767.

research associate: ph.d. in biochemistry

with 3 years of experience. Background in cell separation and cell culture techniques in mammalian. Experience with radioactive techniques. Salary commensurate with experience and training. Send résumé to: Dr. Wayne L. Ryan, University of Nebraska Medical Center, Department of Biochemistry, 9811 Dodge Aven-
ue, Omaha, NE 68105. Application deadline 30 Sep-

research associate and postdoc-
toral positions. Available to study the biosyn-
thesis and gene structure of mucin glycoproteins in tissues and cells involved in the immune response. Experi-
ence with mammalian cell culture and in vitro transfection systems is desirable. Salary commensurate with experience. Send résumé to: Dr. Joseph Mendicino, Department of Biochemistry, University of Georgia, Athens, GA 30602.

associate in research
department of surgery

Division of Thoracic Surgery at the Brigham and Women's Hospital has an opening for a research asso-
ciate to study electrophysiology of gastrointestinal smooth muscle. Applicant should have experience with in-vivo experimentation with animal preparations and basic electrophysiologic techniques. Experience with techniques of blood flow measurement welcome. Candidates should have a Ph.D. in a related field and capacity for interdisciplinary research and growth. Please send résumé, letter of interest and names of references to: David J. Sagarin, M.D., Chief, Division of Thoracic Surgery, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 21115.

research associate position available to study the electrical properties of cells and tissues using intracellular microelectrodes, impedance analysis and singlechannel recordings. Strong background in electrical circuit theory, statistical mechanics and mathematical methods and a Ph.D. in biophysics or physics are required. Annual salary $25,000. Send résumé and names of three references to: Dr. R. T. Mathias, Dep-
artment of Physiology and Biophysics, IUSC, SUNY Stony Brook, Stony Brook, NY 11794-8661. SUNY Stony Brook is an Affirmative Action/Equal Opportunity Employer and Educator. AK#231.

research associate

The Jackson Laboratory, a center for research in mammalian genetics located on the coast of Maine, has opened a position for a research associate to conduct basic research aimed at understanding the mechanisms of transforming protein action. Experimen-
tal methods will include in vitro mutagenesis, gene cloning and expression in mammalian systems. Appli-
cants should send curriculum vitae and three letters of reference to: Harold Wheeler, Employment Manager, The Jackson Laboratory, 180 Bar Harbor Road, ME 04609. Telephone: 207-288-3371. Affirma-
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research associate position, available imme-
diately, to develop and apply methods for assessing the bioavailability of Ca from dairy foods. Candidates must have a Ph.D. in biochemistry, allied health sciences. Candidates should send curriculum vitae and names of three references to: Dr. Dennis Miller, Department of Food Science, Stocking Hall, Cornell University, Ithaca, NY 14853. Equal Opportunity/Affirmative Action Employer.

research associate for site-directed muta-
genes, and studies of recombinant proteins of blood coagulation and clot-
dissolution. Outstanding facilities and excellent col-
 leagues contribute to providing a stimulating scien-
tific environment. All required cDNA's and expression systems are present in the laboratory. Address correspondence to: Dr. F. J. Castellino, Department of Chemis-
try, University of Notre Dame, Notre Dame, IN 46556. The University of Notre Dame is an Equal Opportu-
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research chief

totolaryngology

Assistant/associate professor position to develop basic research efforts in sciences related to ear, nose, throat, chronic disease and bioengineering. Research training will be commensurate with education and experience. Contact: Win sor V. Morrison, M.D., Chief, Division of Otolaryngology, Department of Surgery, State University of New York Medical Center, 250 North State Street, Jackson, MS 39216. Telephone: 601-984-5162. Equal Opportunity
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erable experience with current electron microscopy tech-
niques. Experience of fund-raising either in grants and/or industrial contracts would be an advantage. In-
struction of Centre users in sophisticated EM techniques will be required. Please contact: Dr. Ian D. Mackinnon, Director, Elec-
tron Microscope Centre, The University of Queens-
land, Main Building, telephone: 3871-5002, facsimile: 07-571-
5896. Salary range $24,546 to $34,403 per annum for a fixed term of 3 to 5 years with possibility of renewal; level of appointments depends on experience. Applications are encouraged from females. The Centre operates a university superannuation scheme and to receive limited remov-

Applications containing names of three referees should be forwarded directly to: Dr. Mary Barrett, Personnel Services, J. D. Story Building, The University of Queensland, St. Lucia, Queensland 4067, Australia.
POSITIONS OPEN

RESEARCH ASSOCIATE Position to work on tissue specificity and physiological control of respiratory enzymes, including location of enzymes from different tissues, separation, purification and characterization of individual subunits using protein chemical and immunological approaches. Ph.D. degree in biochemistry or closely related area and experience in protein chemistry and immunology required. Salary $19,500 per year. Location: Eugene, Oregon. Apply by 30 September 1988 to: Employment Division, Attention: Job Order Number 2120443, 875 Union Street NE, Room 201, Salem, OR 97311. An Equal Opportunity/Affirmative Action Employer.

RESEARCH LABORATORY SUPERVISOR for University of Southern California Department of Ophthalmology morphologic laboratory with Ph.D. or Master's degree, or equivalent laboratory experience in electron microscopy, immunocytochemistry, darkroom procedures and handling radioactive materials. The duties will include supervising and assisting technicians and six to ten research fellows. Application materials with salary requirement should be sent to: Carmen Castillo, Personnel Assistant, USC Department of Ophthalmology, 1355 San Pablo Street, Los Angeles, CA 90033. Equal Opportunity Employer.

RESEARCH MOLECULAR BIOLOGIST Molecular investigation of the role of homeobox-containing genes in the control of blood cell growth/differentiation. Two years of previous experience required in DNA cloning and sequencing and RNA isolation and Northern blotting. Previous experience in protein purification also required. Ph.D. or equivalent in molecular biology or biochemistry required. Work in an active, modern, well-equipped laboratory with one other Ph.D. molecular biologist in a multi-disciplinary team in the Martinez VA Medical Center, located approximately 20 miles from University of California, Berkeley. Salary is $27,700 per year, working a minimum 40 hours per week. Equal Opportunity Employer. Contact: Dr. Corey Largman, Ph.D., Research Room 140, Martinez VA Medical Center, 150 Muir Road, Martinez, CA 94553.

RESEARCH PROGRAM DIRECTORS California Institute of Biological Research (CIBR), a non-profit institute, has recently been established with financial support from Stratagene in La Jolla, CA. The institute is in a beautiful, coastal location in close proximity to the Salk Institute, Research Institute of Scripps Clinic, Medical Biology Institute, La Jolla Cancer Research Center, and the University of California, San Diego. CIBR will consist of laboratories with research interests in eukaryotic gene regulation, oncogenes, cellu-lar and molecular transformation, control of immune responses, molecular biology of differentiation, and mammalian cell culture. CIBR Research Program Directors should demonstrate the ability to obtain funding from extramural granting agencies. Research Program Directors also will be aided by significant core supplementation and may serve as consultants to Stratagene with the opportunity to engage in collaborative projects. Investigators with appropriate research interests are encouraged to apply.

Send curriculum vitae to: Personnel, California Institute of Biological Research, 11099 North Torrey Pines Road, La Jolla, CA 92037.

RESEARCH SCIENTIST Ph.D. with experience in retro-virology or molecular biology required to initiate research projects on HIV. A P3 facility with technical support is available. The successful candidate will be funded for 2 years with a possible 1-year extension while establishing grant support. Please send a full curriculum vitae with the names of three references and salary history to: D. Stevenson, Virology Laboratory, Huntington Memorial Hospital, 744 Fairmont Avenue, Suite 1, Pasadena, CA 91105.

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**RESEARCH TECHNOLOGIST FLOW CYTOMETRY**—Position available immediately to manage the Fluorescence Laboratory in the Division of Rheumatology and Clinical Immunology dedicated to the use of fluorochrome-labeled molecules in flow cytometry and microscopy for the study of lymphocyte cell biology and function. Techniques include phenotyping of cell surface antigens, binding and internalization of extracellular ligands, quantitation of changes in membrane potential and intracellular calcium, energy transfer and cell sorting. The facility is equipped with a dual laser FACS IV and a fluorescein microscope. Salary to $32,000 depending on training and experience. Please send curriculum vitae and two references (including telephone numbers) to: Dr. Doris B. Tobin, 1101 Oakland Avenue, University Hospital, 300 Community Drive, Manhasset, NY 11030, A Teaching Center of Cornell University Medical College. Equal Opportunity Employer M/F.

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**SCIENCE WRITER**—Major New York City public relations agency producing material for science writers and broadcasters, seeks an experienced (2 to 4 years) science writer to work on a leading pharmaceutical company account. Advanced science degree and/or extensive science writing experience preferred. Candidate must be capable of writing for lay audiences, and ideally have some experience in central nervous system and cardiovascular diseases.

Send résumé and salary history to: Burton, Selvage & Lee 79 Madison Avenue Department HR New York, NY 10016

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**SENSORY NEUROPHYSIOLOGIST:** Tenure-track position for position available at assistant or instructor level. Serious commitment to collaborative work within the Micorsurgical Research Center. Expertise required to characterize neurophysiological properties of auditory nerves and neurons of central neurons which have regenerated along peripheral nerve implants. Preference given to applicants experienced in spinal cord research and tract tracing and histological techniques. Please send curriculum vitae with three letters of recommendation to: Dr. Julia T. Terraz, Micorsurgical Research Center, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501.

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**SENIOR TECHNICIAN FOR NEWLY ESTABLISHED PLANT BIOLOGY CENTER, UNIVERSITY OF CALIFORNIA BERKELEY**

We are seeking an individual to staff and supervise a facility dedicated to applying and developing modern molecular biology techniques, bioinformatics, and plant development. Applicants should have demonstrated experience in fluorescence, phase and Nomarski microscopy, and an established background in the preparation of tissues for immunolocational studies and in situ hybridization. Working knowledge of immunocochemical techniques and electron microscopy preferred. Incumbent will be expected to work with faculty, postdoctoral fellows and graduate students in the development and application of microscopy techniques to a variety of plant tissues. We are seeking a highly creative individual adept at devising and modifying techniques and protocols. This is a permanent position (salary $21,153 to $23,896 per month). For an application send a letter of intent to: Senior Technician Search, Genetics Department, Mullard Hall, University of California, Berkeley, CA 94720. The closing date will be after 30 August 1988. Women and minorities are especially encouraged to apply. The University of California is an Equal Opportunity Employer.

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**SYMPOSIUM**

**IN SITU EVALUATION OF BIOLOGICAL HAZARDS OF ENVIRONMENTAL POLLUTANTS 5 to 7 December 1988, The Hotel Eurola, Chapel Hill, North Carolina.**

Sponsored by: U.S. EPA, NIEHS, NIOSH, U.S. Army, Proctor and Gamble, and the University of Missouri. The purpose of the conference is to focus on the application of currently available biosassays for in situ environmental assessment and on the evaluation of the utility of integrated chemical and biological data obtained from environmental conditions. The conference will be oriented to the assessment of human health effects from exposure to a given environment. Requests for registration materials should be made to: Dr. Shabeg Sandhu, U.S. EPA, MD-68, Research Triangle Park, NC 27709. Telephone: 919-541-3850.

**FELLOWSHIPS**

**BIOLOGY NSF/RC UNIVERSITY RESEARCH FELLOWSHIPS**—Concordia University invites applications from natural scientists of outstanding potential in research who have obtained their Ph.D. in the past 5 years. Applicants must be Canadian citizens or permanent residents. The department is interested in applicants in the following areas: (i) Plant biochemistry with an interest in natural products, (ii) cell biology and development, (iii) E. coli genetics or physiology, (iv) ecotoxicology, (v) aquatic population ecology, or (vi) studies of structure function relationships in macromolecules, prefer DNA-protein interactions, translation fidelity or enzyme catalysis. The successful candidate will have at least one year, but preferably 2 years, postdoctoral experience. Salary is $23,065. Application should be sent to: Dr. E. J. L. Kenny, Biology Department, Concordia University, 1455 de Maisonneuve Boulevard West, Montreal, Quebec H3G 1M8. The deadline for receipt of applications is 28 September 1988. Applicants should ask three referees to forward letters of recommendation by 1 September 1988.

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**POSTDOCTORAL FELLOWSHIP**

NIH Staff Fellow and/or Visiting Fellow/Associate positions are available at the National Institute of Alcohol Abuse and Alcoholism (NIAAA). Studies are on metabolic control, NMR and cloning, expression and characterization of peptide growth factors and their interaction with cellular growth. Initial salary range is from $21,000 to $32,500 depending upon qualifications. NIAA/NIAA is an Equal Opportunity Employer.

Send curriculum vitae and two letters of reference to: Dr. Richard Veen, Laboratory of Metabolism and Molecular Biology NIAA 12501 Westpark Drive Rockville, MD 20852 Telephone: 301-443-3063

**TRAINING PROGRAM**

**A TRAINING PROGRAM IN NUTRITIONAL BIOCHEMISTRY PEW CENTER FOR MOLECULAR NUTRITION**

The program in nutrition and metabolism has been established at Case Western Reserve University, as part of a joint effort between the Department of Nutrition, Biochemistry, Molecular Biology and Microbiology and the Pew Center for Molecular Nutrition. The program will provide postdoctoral fellows with training in the use of molecular biology in metabolic and nutritional studies stressing the use of modern techniques for transferring genes into cells and animals to alter the patterning of metabolic processes. The Pew Center for Molecular Nutrition provides expertise in the use of retroviral vectors and transgenic animals as models for metabolic studies. Formal course work, together with journal clubs and seminars, are available to provide the trainees with a detailed understanding of both metabolism and molecular biology. A program of joint appointment in nutritional biochemistry, leading to a Ph.D., M.D./Ph.D. or M.S. degree, is available through the participating Departments. Send inquiries or curriculum vitae and the names of three references to: Dr. Richard W. Hannon, Department of Biochemistry, Case Western Reserve University School of Medicine, Cleveland, OH 44106. An Affirmative Action/Equal Opportunity Employer.

**MARKETPLACE**

The book They Threaten Your Health by Ernest Vehetlais is a telling critique of the antivivisection-animal rights movement. It can be ordered from The Nutrition Information Center, 255 N. Granada, Suite 2058, Tucson, AZ 85701. The postpaid price is $13.95 ($18.95 overseas).

The U.S. Environmental Protection Agency is interested in obtaining existing monocular or polycryl antibiotics capable of detecting specific parasites or other potential environmental contaminants. The Agency anticipates cost-sharing the development and evaluation of these antibody-based detection systems. Address interest statements to: Dr. Jeanette Van Emon, U.S. EPA, EMBL/W, EAD, P.O. 39478, Las Vegas, NV 89193-3478.

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