

tered dispersal literature. Also, contrary to fairly consistent usage throughout this book, "dispersible" is not spelled with an *a*.

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Alcoholism. Origins and Outcome. Robert M. Rose and James E. Barrett, Eds. Raven, New York, 1987. xiv, 300 pp., illus. \$69. American Psychopathological Series, From a meeting, New York, March 1986.

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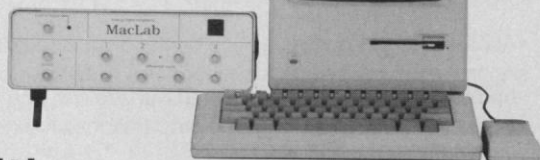
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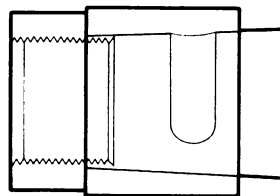
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Literature

pH and Conductivity contains 168 pages of product descriptions and technical articles; the products include testers, controllers, pumps, and oxygen and conductivity meters. Omega Engineering. Circle 573.

The *1988 Temperature Measurement Handbook and Encyclopedia* features products for temperature measurement and control, including thermocouples, recorders, and data acquisition devices. Omega Engineering. Circle 574.

Centrifuge Ware Selection and Rotor Matching Guide is a brochure that explains which tubes and bottles fit centrifuge rotors made by various manufacturers. Nalge, A Subsidiary of Sybron. Circle 575.

Plotters for IBM Mainframes, Workstations, and PCs explains how to connect IBM computers to plotters. Versatec. Circle 576.

The *Serum and Antibody Product Range* catalog contains information on sera, plasma, and complement; polyclonal antibodies; 376 monoclonal antibodies; and growth factors and antibodies to growth factors. Sera-Lab (England). Circle 578.

Electrophoresis 1988 is a catalog of gel electrophoresis products, including precast polyacrylamide gels, reagents and stains, and minigel devices. Integrated Separation Systems. Circle 579.

A Guide to Freeze Drying for the Laboratory describes freeze drying and gives hints on performing it successfully. Labconco. Circle 605.

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

Personnel Placement

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

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 Scherago Associates.

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

LINE CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): \$38.00 per line; \$380 minimum, per week (minimum charge covers one inch on a single column; one inch equals 10 lines of 52 characters and spaces per line). No charge for use of box number. No agency commission for ads less than 4 inches. No cash discount. Prepayment required for all foreign ads. Purchase orders and/or cover letter including billing address required for all other advertising.

To ESTIMATE ad cost:

Structure ad copy on a separate page, on lines of 52 characters and spaces. Include any desired heading. Each line of heading, and/or extra line spaces, and all partial lines (including centered reply information) are counted as full lines. Ad titles located within the text are printed in boldface caps and are only 32 characters per line. In ESTIMATING the cost, multiply total lines \times \$38.00 = approximate cost of ad. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and the resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.)

CANCELLATION POLICY:

NOTE: Ad cancellations made after Thursday, TWO weeks prior to issue date incur a 10% production charge. Final deadline for cancellations is 12 p.m. Tuesday, ONE week prior to issue date. Cancellations must be in writing.

Send copy for all **Positions Wanted** ads and **Line Classified** ads less than 1/6 page in size (39 lines) to:

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

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

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

Blind ad replies should be addressed as follows:

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

POSITIONS WANTED

Analytical Chemist/Biochemist, M.S.: Experience in clinical toxicology, drug screening, chemical warfare agents. Peptide and protein research. Box 64, **SCIENCE**.

Biochemistry Technologist, B.S., Research Associate, 1981. Seventeen years of experience (research, industry) in a variety of biochemical, enzymatic, ELISA immunological assays, which involved using radioisotopic techniques, paper chromatography, measure enzyme activities, various colorimetric techniques for locating, quantitating proteins and carbohydrates. Purification and characterization of protein, enzymes. Experienced with gel filtration, ion-exchange, affinity chromatography, gel electrophoresis and isoelectric focusing. Also recombinant membrane, membrane preparation, bacteria culture. Excellent skills. Seeks research/academic/industrial or medical laboratory speaking English in Canada. Box 38, **SCIENCE**.

POSITIONS WANTED

Cellular Enzymologist/Toxicologist, M.D., Ph.D. with recent extensive involvement in the development of new technologies for in vitro drug toxicity and sensitivity testing, proprietor of several possible patents, seeks Senior Research Scientist position and patents promotion in pharmaceutical industry, medical schools or other appropriate research institutions. Box 57, **SCIENCE**.

Cytogeneticist, Ph.D. Directs full-service medical cytogenetics laboratory; extensive experience in human and mammalian cytogenetic analysis. Research interests: tumor cytogenetics, chromosome and DNA damage. Seeks position in research and medical cytogenetic laboratory. Box 58, **SCIENCE**.

Immunologist/Geneticist, Ph.D. Hybridoma, immunoassay, cell culture, recombinant DNA experience. Seeking position in New York City, New Jersey, Pennsylvania. Box 62, **SCIENCE**.

Immunologist, Ph.D. Experienced researcher and project manager with background in hybridomas, monoclonal antibodies, cancer immunology, lymphokines, and large-scale tissue culture. Seeking responsible position in development of immunotherapeutic approaches to human disease. Box 63, **SCIENCE**.

Ph.D. in nutrition (1986). Two years of postdoctoral experience. Research experience in molecular biology, enzymology and protein purification. Seeking academic or industry research opportunities. Box 54, **SCIENCE**.

Scientific Data Analysis and Presentation. Semi-related Ph.D. (physiology), with over 30 years of experience developing and programming, both routine and novel analysis methods; many refereed publications. Lower rates for interesting projects. Box 65, **SCIENCE**.

POSITIONS OPEN

The Department of Anatomy of the University of Kansas Medical Center is seeking a tenure-track **ASSISTANT PROFESSOR** for 1 July 1988. Background required is a Ph.D. and/or M.D. degree, and at least 2 years of postdoctoral experience in cellular, developmental, or neurobiology. Teaching responsibilities are teaching head and neck to medical students. The successful candidate will demonstrate potential to develop an independent research program in one of the above areas. Salary and seed money are negotiable. Send curriculum vitae, several recent reprints, and letters from three references to: **Robert M. Klein, Ph.D., Department of Anatomy, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, KS 66103.**

The University of Kansas Medical Center is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR IN MOLECULAR ENDOCRINOLOGY

The Center for Endocrinology, Metabolism, and Nutrition (CEMN) of Northwestern University Medical School invites applications for a tenure-track position in molecular endocrinology at the assistant professor level in the appropriate clinical or basic science department. CEMN is an interdisciplinary unit encompassing faculty from the Departments of Medicine, Pediatrics, Obstetrics and Gynecology, Cell Biology, Pharmacology, and Molecular Biology. The successful candidate has an M.D.-Ph.D., Ph.D., or M.D. degree with postdoctoral experience in contemporary molecular biology, molecular genetics or cell biology. The candidate is expected to devote the majority of time to laboratory studies to conduct an independently funded research program in the areas of hormone action, regulation of hormone synthesis/secretion, genetic expression of hormones and hormone-regulated proteins, trans-membrane signaling or related aspects of mammalian endocrinology. A broad-based approach to the molecular aspects of hormone physiology is preferred. Send curriculum vitae, a description of research interests and three letters of recommendation directly to: **Gerhard Baumann, M.D., Chairman, Search Committee, Center for Endocrinology, Metabolism, and Nutrition, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. Northwestern University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT RESEARCH ENDOCRINOLOGIST, Department of Medicine, University of California, San Francisco: Ph.D. (biochemistry), several years of postdoctoral experience. Join research project on mechanisms by which calcium, vitamin D and PTH regulate differentiation of normal and transformed keratinocytes. Experience required in protein chemistry, enzymology, RIA, HPLC, cell culture; preferred in calciotropic hormones. Salary: \$36,600. Send curriculum vitae to: **D. D. Bikle, M.D., Ph.D., VA Medical Center (111N), 4150 Clement Street, San Francisco, CA 94121. Equal Opportunity Employer.**

ASSISTANT RESEARCH ENDOCRINOLOGIST position available in endocrinology and metabolism. (Level of appointment equivalent to assistant professor.) Ph.D. in molecular biology/biochemistry or relevant biological sciences. Minimum of 2 years of postdoctoral experience in molecular biology, expertise in techniques of molecular cloning, in vitro mutagenesis, transfection and expression of cDNA in eukaryotic cells, and protein biochemistry. Research will focus on molecular mechanisms of insulin action. Salary established within University of California, San Diego salary scale. Reply to: **Jerrold M. Olefsky, M.D., by 1 July 1988 at: University of California, San Diego, Department of Medicine, M-023E, La Jolla, CA 92093. Affirmative Action/Equal Opportunity Employer.**

ASSISTANT SCIENTIST—for multidisciplinary drug delivery research program. Individual will be responsible for developing innovative methods to improve the delivery of peptides and proteins. Applicants must have a Ph.D. degree in the pharmaceutical sciences or equivalents, proven expertise in isolating hepatocytes, conducting liver perfusion studies and analyzing experimental data by pharmacokinetic modeling methods. Forty hours per week. Salary: \$25,000 to \$28,500 per year. Send curriculum vitae with names and addresses of three references to: **Dr. Ronald T. Borchardt, Department of Pharmaceutical Chemistry, The University of Kansas, Lawrence, KS 66045. Deadline for applications: 15 May 1988. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT/ASSOCIATE PROFESSOR OF IMMUNOLOGY TUFTS UNIVERSITY MEDICAL SCHOOL

Tenure-track position in the Pathology Department for individual with strong, funded research record in cellular/molecular immunology or immunopathology. Appointee expected to participate in teaching of professional and graduate students.

Applicants should send a summary of research interests, curriculum vitae, and three letters of recommendation to: **Dr. Sidney Leskowitz, Tufts Medical School, 136 Harrison Avenue, Boston, MA 02111.**

Tufts University is an Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR OF NEUROPATHOLOGY UNIVERSITY OF MINNESOTA DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY

Faculty position available in neuropathology at rank of assistant or associate professor, depending on qualifications. Applicant will be expected to head a vigorous research program in neurobiology. Minimum requirements are M.D., BC/BE in anatomic pathology and neuropathology subspecialty with 2 years (assistant professor) or 5 years (associate professor) of experience in neuropathology or neurosciences. Demonstrated research productivity necessary including publications in peer-reviewed journals. Teaching includes fellows in neuropathology, general pathology, medical fellows from other services, and medical students. Assist in providing neuropathology services to patients at University Hospital.

Provide curriculum vitae, three letters of recommendation, and a brief synopsis of recent research activities to:

**Neuropathology Search Committee
Department of Laboratory Medicine and Pathology
University of Minnesota, Box 198 UMHC
420 Delaware Street SE
Minneapolis, MN 55455**

Deadline for receipt of applications is 15 August 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

PROTEIN CHEMIST

Otsuka Pharmaceutical Co., Ltd., Maryland Research Laboratories, a branch of one of Japan's major pharmaceutical companies, currently has a professional opening for an experienced Protein Chemist.

You will lead the Protein Purification Group in the purification of high molecular weight peptides, amino acid analysis, and two dimensional gel electrophoresis. The successful candidate will hold a Ph.D. and 5-7 years of relevant experience.

Otsuka offers competitive salaries, an excellent benefits package and an opportunity to advance your career with a dynamic, progressive organization dedicated to innovative research. Qualified applicants should send a C.V. with salary history requirements to: **Scientific Recruitment**



Otsuka Pharmaceutical Co., Ltd.
Maryland Research Laboratories
P.O. Box 4165
Rockville, MD 20850

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

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TODAY'S INNOVATION... TOMORROW'S SUCCESS

In the highly competitive, high volume HBA categories of suncare, footcare, and proprietary medicines, Schering-Plough's Personal Care Products such as COPPERTONE, DR. SCHOLL, and DI-GEL have always maintained a prominent market position. To assure our continued leadership role and support growth in new product development activities, we are seeking candidates for the following positions:

ANALYTICAL SKIN RESEARCH

Principal Scientist—Responsible for providing analytical support to Skin Biology research program geared toward OTC product development. Requires a Ph.D. in Pharmacology, Toxicology, or other life sciences and at least 1 year experience with GC, GC-MS, NMR, TLC electrophoresis, and related techniques. Related experience may be substituted for education.

PHOTOAGING RESEARCH

Senior Scientist—Responsible for investigation of radiation effects on the skin. Requires a Ph.D. in Life Sciences, Pharmacology, or Physical Chemistry.

Chemist—Responsible for assisting in investigation of radiation effects on the skin. Requires a B.S. in Biochemistry or Chemistry and two years related experience.

MELANOGENESIS RESEARCH

Chemist—Responsible for assisting in investigation of melanogenesis as related to skin coloration. Requires a B.S. in Chemistry or Biochemistry and two years experience with tissue culture techniques.

PHARMACEUTICAL RESEARCH

Scientist—Responsible for scale-up of tablets and gums, development of innovative processes. Requires a B.S. in Chemistry or Pharmacy and 4 years solid-dosage process experience.

We are a Fortune 200 Company, headquartered in an attractive sunbelt location. We offer highly competitive compensation and benefit programs, including profit sharing and scientific incentive awards. We also offer a progressive research environment characterized by dedication to innovation and continued industry leadership. For prompt consideration, please send your resume with current salary in confidence to:



Schering-Plough Corporation
P.O. Box 377-PCG, Attn: Ann Schaff
Memphis, TN 38151
An Equal Opportunity Employer M/F/H/V

Scientists Postdocs

Genentech, Inc., a leader in the field of biotechnology, is currently seeking the following individuals.

Scientist Retrovirus Studies

An individual is sought to participate in state-of-the-art research on endogenous and exogenous retroviruses of mammalian cell lines.

The successful candidate will have a Ph.D. and postdoctoral research in the molecular biology of retroviruses with experience in recombinant DNA techniques.

Postdoctoral Fellow Cell Biology

An individual is sought to pursue a project dealing with the effects of growth factors on gonadal/pituitary cells and the regulation of secretion of such factors in the male reproductive system or other aspects of growth factor function.

Requirements include a Ph.D. and 1-2 years' postdoctoral experience in endocrine physiology, reproductive biology or mode of action of growth factors. Cell culture and/or basic cell biology skills are also required.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, send your resume to Joyce Goulden, Human Resources, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. Please indicate Department 1464 for the Scientist position and Department 2149 for the Postdoc. An equal opportunity employer.

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POSITIONS OPEN

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology is seeking candidates for a faculty (12-month, tenure-track) position at the assistant professor level. The Department has an orientation in the area of cardiopulmonary physiology. We seek an individual whose research interests relate to the microcirculation or vascular endothelial cell function, but encourage applications from individuals in other areas of cardiovascular or pulmonary physiology as well. Requirements include Ph.D. or M.D., completion of 2 years of postdoctoral training, a sound background in general physiology, and the ability to develop own research program. Will be responsible for teaching gastrointestinal and portions of cardiovascular physiology in the medical physiology course. Opportunities exist for collaborative research and participation in graduate education. Submit curriculum vitae, statement of research interests, and names of three references by 16 May 1988 to: **Dr. Michael B. Maron, c/o The Office of Human Resources, Northeastern Ohio Universities College of Medicine, Rootstown, OH 44272. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR OF MEDICINE to assume major scientific responsibility for a cardiovascular molecular biology program. The candidate may be an M.D. or Ph.D. with interest and experience in molecular genetics of contractile proteins, membrane channels or membrane receptors. The candidate would be expected to establish own laboratory and interact closely with active ongoing laboratories working in biochemistry, cell physiology, and cell biology of the cardiovascular system within a research-oriented Section of Cardiology. Please send inquiries, résumé, and the names of three references to: **Morton F. Arnsdorf, M.D., Chief, Section of Cardiology, University of Chicago Hospitals, Box #423, 5841 South Maryland, Chicago, IL 60637.**

ASSOCIATE IN PAIN MANAGEMENT OREGON HEALTH SCIENCES UNIVERSITY SCHOOL OF MEDICINE

The Department of Anesthesiology at the Oregon Health Sciences University School of Medicine is recruiting for a full-time faculty member at the assistant professor level. The successful recruit will have an academic appointment in the School of Medicine, and will have teaching and research responsibilities in the Pain Management Center of our University Hospital. Candidates should have specific training (at least 3 months) in pain management and related research and should have experience in a multidisciplinary pain management center. Candidates should have an aptitude for research, demonstrated by primary authorship of peer-reviewed publications in the field of pain management and/or regional anesthesia. Ability to interact with basic and clinical scientists should be shown. Candidates should be certified by the American Board of Anesthesiology and have an Oregon medical license. Salary will be \$34,000 base per year, with overage from practice plan earnings. Interested candidates should send their curriculum vitae and the names of three references to: **Wendell C. Stevens, M.D., Professor and Chairman, Department of Anesthesiology, Oregon Health Sciences University, Portland, OR 97201.**

ASSOCIATE RESEARCH SCIENTIST. Position available immediately. Ph.D. with training in inflammatory mediators or cellular immunology to participate in ongoing research on host responses to injury/infection. Salary range: \$30,000 to \$35,000, based on experience. *U.S. citizen or permanent residence required.* Send curriculum vitae and names of three references to: **Dr. Ann Bjornson, Director, Division of Immunology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219. Affirmative Action/Equal Opportunity Employer.**

BIOCHEMIST, ASSISTANT PROFESSOR, 1-year position with possibility of renewal starting fall 1988. Duties: supervision of biochemistry program, teaching courses in biochemistry and molecular genetics, directing undergraduate research. Good research facilities. Ph.D. and teaching experience preferred. Applications will be received until position is filled. Send résumé, research plans, unofficial transcripts, and have three letters of reference forwarded to: **Biochemistry Search Committee, Dow Science Building, Alma College, Alma, MI 48801.**

POSITIONS OPEN

BIOMEDICAL ENGINEER

Position open in the Orthopedic Research Department, Motion Analysis Laboratory of Children's Hospital and Health Center, San Diego. Qualifications: Ph.D. or equivalent degree in engineering, biomechanics, computing, or related field. Significant experience in gait analysis, grant procurement, administration, and teaching. The candidate will be eligible for an academic appointment at the University of California, San Diego. Send curriculum vitae and cover letter to: **Human Resources Department, Children's Hospital, 8001 Frost Street, San Diego, CA 92123. Equal Opportunity Employer.**

BOTANIST—Tenure-track assistant professorship with teaching responsibilities including general botany, upper level plant ecology, and graduate courses in the appointee's area. Preference will be given to applicants willing to coordinate Biology Education program. Research opportunities include modern laboratory, herbarium, and a 1000-acre campus nature preserve. Send curriculum vitae and three letters of reference by 20 May 1988 to: **Dr. Paul Hamilton, Chairperson, Department of Biology, The University of West Florida, Pensacola, FL 32514. Equal Opportunity/Affirmative Action Institution.**

The Department of Microbiology and Immunology at the University of Miami School of Medicine seeks a **CELLULAR IMMUNOLOGIST** interested and dedicated to the study of immunological tolerance. We seek an investigator skilled in in vitro cellular immunological assays, lymphocyte cloning, and tissue culture. Interested applicants should send a letter, curriculum vitae, and names of three references to:

**J. Wayne Streilein, M.D.
Professor and Chairman
Department of Microbiology and Immunology
University of Miami School of Medicine
P.O. Box 016960 (R-138)
Miami, FL 33101**

CELLULAR IMMUNOLOGISTS— TENURE TRACK

The Trudeau Institute invites applications for two, full-time, tenure-track positions at the level of assistant professor or associate professor. The successful applicants will be provided the means to develop independent research programs dealing with some aspect of the role of accessory cells, lymphokines, or monokines in regulating immune responses. Training in molecular immunology is desirable, but not essential. Candidates wishing to study other problems in cellular immunology will also be considered. Existing research programs at the institute deal with immune responses to infectious agents, intracellular parasites, tumors, and allografts.

The Trudeau Institute is a free-standing, not-for-profit pure research institute attractively located in a modern complex on the shore of Saranac Lake, 10 miles from Lake Placid, New York. Compensation includes liberal fringe benefits. On-campus housing is available.

Send résumé and the names of three references to:

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

COMPUTATIONAL NEUROSCIENCE— AT&T BELL LABORATORIES

Position available for an **EXPERIMENTAL NEUROSCIENTIST** working at the cellular and systems level. The successful candidate is expected to establish a vigorous and independent research program. Both senior investigators and postdoctoral researchers with several years of experience are appropriate candidates. Bell Laboratories has a strong commitment to fundamental experimental and theoretical research in computational neuroscience. Send résumé, publications list, brief outline of proposed research, and names of three references to: **L. W. Jelinski, Department Head, Molecular Biophysics Research Department, AT&T Bell Laboratories, 600 Mountain Avenue, Murray Hill, NJ 07974.**

POSITIONS OPEN

CHAIRPERSON: Department of Meteorology, University of Maryland, College Park, Maryland. Nominations and applications are invited. The Department consists of 12 faculty members, 4 research scientists, 15 research associates, and 45 graduate students. About ten off-campus research scientists from NOAA and NASA participate in collaborative research projects. The candidate should possess a doctorate degree and a record of excellence in scholarly achievements. Responsibilities include administration of the graduate teaching and research activities of the Department and the chairperson is expected to provide imaginative leadership and enhance the role of the Department in the emerging national and international earth sciences programs. Applicants should submit curriculum vitae and the names of four references to: **Dr. N. S. Chant, Chairman, Meteorology Search Committee, Department of Physics, University of Maryland, College Park, MD 20742.** Please submit applications as soon as possible; applications will be accepted until the position is filled. *The University of Maryland is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

CHEMISTS AND BIOCHEMISTS

A variety of opportunities for B.S., M.S. and Ph.D.'s with some of the most exciting companies in the U.S., both well-established and start-ups going to production. If you have expertise in biotechnology, immunology, molecular biology, pharmaceuticals, preformulation, QA/QC, analytical, HPLC, GC/MS or the environmental field, Lybrook Associates is your best source for a better job. Employer retained. To learn more, call: **Karen Lybrook at 401-683-6990**, or send your résumé: **Lybrook Associates, P.O. Box 572, Newport, RI 02840.**

Start up, biotechnology company, central New Jersey area is seeking a recent Ph.D. **CHEMIST/BIOCHEMIST** with expertise in DNA chemistry, for working in the area of novel DNA probe assay development. Competitive salary benefits and a possible equity position are available. Send résumé to: **P.O. Box 4338, Metuchen, NJ 08840.**

DEPARTMENT HEAD: VIROLOGY/IMMUNOLOGY, ASSOCIATE/FULL PROFESSOR

The Primate Research Institute (PRI) of New Mexico State University (NMSU) is seeking a department head for its Virology/Immunology Department. Qualifications include: Ph.D., D.V.M., or M.D. with proven experience and leadership in retroviral research. Salary: \$60,000 to \$90,000, depending upon experience and qualifications.

The successful candidate will lead a rapidly expanding research effort in retroviral diseases and hepatitis. PRI presently has a \$2-million annual research program in AIDS and hepatitis vaccine development in chimpanzees, as well as a basic therapeutic and vaccine research program in the simian immunodeficiency model. PRI has a new excellently equipped 4000-square-foot P-3 laboratory, and several biocontainment animal housing modules. PRI also has a colony of 2000 macaques and 440 chimpanzees available for research. The successful candidate will be expected to lead a new department to an outstanding program in virology and immunology with emphasis on vaccine and therapeutic development for AIDS. Resources are available for additional senior positions. The salary is highly competitive in New Mexico's low cost-of-living environment. PRI employs 140 people working in toxicology, virology, reproductive biology, metabolism, surgery, and primatology. The Institute is located 50 miles from the main NMSU campus in the high desert, and 10 miles from Alamogordo and the Sacramento Mountains. Employees may choose living conditions varying from desert to alpine.

Benefits include: Group medical and hospital insurance, group life insurance, long-term disability insurance, annual and sick leave, and state educational retirement. *NMSU is an Equal Employment Opportunity/Affirmative Action Employer. Offer of employment is contingent upon verification of individual's eligibility of employment in the United States.*

Submit curriculum vitae and names of three references to: **William C. Hobson, Director, Primate Research Institute, P.O. Box 1027, Holloman AFB, NM 88330-1027.** Deadline for application is 20 June 1988.

University of California, Davis CELLULAR NEUROBIOLOGY TRAINING PROGRAM

Funding is available to support qualified individuals for training in cellular neurobiology at both postdoctoral and predoctoral levels. Successful applicants will join a young, vigorous neurobiology group that is highly interactive and in which collaborations are common. We particularly encourage participation of trainees in projects involving the expertise of two or more training faculty:

Hilary Anderson, Development of insect nervous systems
Richard Carlsen, Cell biology of axonal and muscle regeneration
Leo Chalupa, Prenatal development of mammalian visual system
Carol Erickson, Morphogenesis and differentiation of neural crest
Mark McNamee, Molecular biology of ACh receptors
Brian Mulloney, Generation and modulation of motor patterns
Pamela Pappone, Biophysics of ion channels
Robert Scobey, Retinal physiology
Barry Wilson, Cholinesterases and neurotoxicology
Martin Wilson, Cell biology of the retina

For more information, contact Dr. Brian Mulloney, Director, Cellular Neurobiology Training Program, Department of Zoology, University of California, Davis, CA 95616, or phone

(916) 752-7468.

UCD is an Equal Opportunity/
Affirmative Action Institution.

RESEARCH SCIENTISTS

RHONE-POULENC RESEARCH CENTER is seeking scientists in the areas of bioengineering and biochemistry. Rhone Poulenc Research Center is a leader in the area of immobilized enzymes and cell technology with commercial processes for the production of specialty chemicals and agricultural and pharmaceutical intermediates.

We have a number of openings for persons with diversified backgrounds. We are searching for biochemists with interests in enzyme and whole cell immobilization, biosynthetic pathways and enzyme isolation. Applicants should have a Ph.D. or equivalent research experience.

Bioengineering candidates should have a masters or higher in biochemical engineering with emphasis in fermentation or enzyme immobilization. Scale-up experience is desirable.

Rhone Poulenc Research Center is a subsidiary of Rhone Poulenc SA, a major pharmaceutical and chemical producer. The research center is located midway between Baltimore and Washington in an attractive suburban setting with access to all major academic, cultural and recreational activities within 30 minutes' drive. RPRC functions as a multidisciplinary academic environment with commercial goals, where science is carried out in extremely well equipped labs, furnished with the latest instrumentation and with an absolute minimum of bureaucracy. Our salary structure and benefits are extremely competitive. We invite qualified applicants to submit their resumes with references to Maria Williams, Rhone Poulenc Research Center, 8510 Corridor Road, Savage, Maryland 20763. EOE.



Pharmacology Group Leader

The
Diagnostic
Imaging

division of our Medical Products department has a unique opportunity for an exceptional individual to manage the pharmacology section of our R&D group.

The ideal candidate will have a P.h.D. in Pharmacology or a related discipline with demonstrated ability in managing state-of-the-art research programs and supervising a highly creative professional staff.

Responsibilities include directing the group in programs related to the development of new radiopharmaceuticals. Duties include the development of animal models, imaging procedures and other pharmacological, biochemical and toxicological methods for the selection and evaluation of new product candidates.

To apply, please send resume to Erin Moore, DuPont, 331 Treble Cove Road, North Billerica, MA 01862. An Equal Opportunity Employer.



Arthritis Research

CIBA-GEIGY is currently expanding its efforts in the area of Arthritis Research and seeks two key individuals to provide scientific and managerial leadership for its Inflammation/Osteoarthritis Research Program.

Manager, Osteoarthritis Research, Dept. 346

We are seeking a Senior Scientist with a PhD in Biochemistry, Pharmacology or Physiology with 5 years' post-doctoral experience in cartilage metabolism/osteoarthritis research. This scientist will be responsible for devising appropriate therapeutic approaches for the treatment of osteoarthritis. This will involve the management of a multi-disciplinary research team of biochemists, cell biologists and pharmacologists in collaboration with medicinal chemists in the search for effective drugs with novel mechanisms of action. Applicants should have demonstrated an ability to develop a competitive research program and to supervise a research group.

Manager, Inflammation Pharmacology, Dept. 344

We are seeking a Senior Scientist with a PhD in Pharmacology, Biochemistry or Immunology with 5 years' post-doctoral research experience in the *in vivo* evaluation of anti-inflammatory and anti-arthritis drugs. This scientist will be responsible for the design and implementation of pharmacologic models for drug evaluation and should have experience in the *ex vivo* measurements of biochemical parameters as part of the characterization of these *in vivo* models. The applicant will be expected to take an active leadership role in the overall management of the Inflammation Research Program and should have demonstrated the ability to supervise a research group.

For consideration, please submit, in confidence, resume, salary requirements, position of interest and appropriate department number, to: Staffing Center, CIBA-GEIGY Corporation, The Pharmaceuticals Division, 556 Morris Avenue, Summit, NJ 07901. We are an equal opportunity employer m/f/h/v.

Science Serving Mankind

CIBA-GEIGY

POSITIONS OPEN

DIRECTOR, clinical research, to supervise overall planning of world-wide clinical research programs; direct and coordinate the design, implementation, monitoring, evaluation and reporting of clinical trials; obtain adequate data on the safety and efficacy of allocated compounds to support registration dossiers; ensure all clinical research activities comply with all local, national and international regulations; prepare budgets of clinical research programs for allocated compounds/projects; collaborate with fellow directors and senior vice president medical research regarding overall budgets and staffing for clinical research department; ensure and facilitate interactions between clinical group and other groups. No patient care. Applicant must possess a degree in medicine or pharmaceutical medicine or a Ph.D. degree in pharmacology as well as possess 3 years of experience in the job offered or 3 years of experience as a medical advisor for clinical research and medical affairs. The required experience must have been in the pharmaceutical industry, and must have included the planning, initiation and completion of international clinical studies evaluating the safety and efficacy of drugs affecting the cardiovascular system such as diuretics, anti-anginal agents and anti-arrhythmic agents. Applicant with M.D. degree must have completed four courses in pharmaceutical medicine or have been awarded a diploma in pharmaceutical medicine. Forty hours per week; Monday through Friday, 8 a.m. to 4:30 p.m.; \$98,000 per year. Send résumé and Social Security number to: **Illinois Department of Employment Security, 401 South State Street-3 South, Chicago, IL 60605. Attention: Mr. Robert Felton, reference # V-IL 8025-F. An Employer Paid Ad.**

DIRECTOR DIVISION OF TOXICOLOGY DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

The Department of Pharmacology and Toxicology of the University of Arkansas for Medical Sciences is conducting a search to identify candidates for the position of Director of the Division of Toxicology. A successful candidate will have an earned doctoral degree with active research interests in pharmacology, toxicology, or occupational medicine.

The Director of the Division of Toxicology will be responsible for administering graduate programs in toxicology and industrial hygiene. Other educational responsibilities include continuing education in toxicology for health professionals.

The director is expected to have and maintain an active research program and should have demonstrated ability to compete successfully for research support.

The University of Arkansas is an Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

Submit curriculum vitae, summary of research and administrative experience, and the names of at least three references to:

Dr. Donald R. Mattison
Department of Obstetrics and Gynecology
University of Arkansas for Medical Sciences
4301 West Markham, Slot 518
Little Rock, AR 72206

ECOLOGIST/ASSISTANT PROFESSOR

An entry-level, tenure-track position to begin August, 1988. Ph.D. in zoology or appropriate biological discipline is required. Teaching responsibilities will include ecology and mammalogy, and upper level courses in areas of specialty. The development of an active research program, and direction of graduate students is expected. Research area is open, but preference will be given to applicants with expertise in terrestrial and animal ecology. The successful applicant will have the opportunity to interact with the Murray State University (MSU) Hancock Biological Station and the Commonwealth Center of Excellence for Reservoir Research. Application review will begin 1 May 1988 and continue until position is filled. Submit transcript(s), three letters of recommendation, and curriculum vitae to: **Dr. Tom J. Timmons, Department of Biological Sciences, Murray State University, Murray, KY 42071. MSU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ENVIRONMENTAL CONSULTANT for engineering firm in southwest Ohio to manage, conduct, and analyze environmental studies and impact assessments, water quality and land use assessments, environmental planning, demographic profiles and baseline studies, perform computer modeling and ecological field characterizations; analyze interactive and geographic computer graphics; develop environmental remote sensing processes for clients. Must have a B.S. and an M.S., one degree in biology or environmental sciences and the other in urban planning, regional planning, city and regional planning or environmental planning; and 1 year of experience in all duties of job described. Forty hours per week, 8 a.m. to 5 p.m. \$28,000 per year. Qualified applicants reply immediately with résumé to: **R. Lechler, JO# 0023547, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

EVOLUTIONARY BIOLOGISTS

The National Zoological Park, Smithsonian Institution, is seeking two evolutionary biologists, a senior scientist-in-charge and research scientist. Candidates must be interested in conservation biology, and capable of using molecular techniques towards the analysis of population genetics and sociobiological problems in higher vertebrates (especially birds and mammals). Both candidates should have active research programs and demonstrated research productivity. Additional duties of the senior position include overseeing the zoo's molecular genetics unit, managing a molecular genetics laboratory, and supervising junior staff, technicians, research fellows, and students. Successful candidates for both positions will be expected to develop independent research programs, and undertake collaborative research with zoo staff whose interests include the genetics of natural and wild populations, population management, physiology, behavioral ecology, and sociobiology. Salaries and grade levels will be commensurate with education and/or experience, and are likely to range from GS-12 to GS-15.

Start-up and operating funds for the laboratory are expected, but the successful candidates will be expected to generate grant funds to support some of the research. Applications must include an SF-171 (Personal Qualifications Statement), college/university transcripts, curriculum vitae, description of research and career goals, abstracts of your three most significant publications, and names and addresses of three references; and should be addressed to: **Smithsonian Institution Employment Office, 900 Jefferson Drive, S.W., Washington, D.C. 20560.** A separate application is required for each position. Deadline is 6 May 1988. However, selection may be effected prior to the closing date. Address inquiries to: **Dr. D. G. Kleiman, National Zoological Park, Washington, D.C. 20008. The Smithsonian Institution is an Equal Opportunity Employer; applications from qualified minority and female candidates are actively solicited.**

UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE DIVISION OF LABORATORY MEDICINE DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

The Department of Pathology and Laboratory Medicine has **FACULTY OPENINGS** in the areas of hematology, clinical chemistry, blood banking, and microbiology. The individuals must possess an M.D. and/or Ph.D. degree and be Board-certified in the area of specialty.

Candidates must have demonstrated academic research skills and service qualifications, and have generated or possess the ability to generate external funding for their research. Academic rank and salary will be commensurate with experience and qualifications. *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

Inquiries and curriculum vitae with names of three referees should be sent to:

Donald Young, M.D., Ph.D.
Director
Division of Laboratory Medicine
Department of Pathology and Laboratory Medicine
Hospital of the University of Pennsylvania
3400 Spruce Street
Philadelphia, PA 19104-4283

POSITIONS OPEN

ENVIRONMENTAL SCIENCES

One tenure-track appointment, **ASSISTANT PROFESSOR**, will be made in either: (i) aquatic virology/microbiological public health or (ii) phytoplankton/nutrient cycling. To become part of an interdisciplinary department of natural and social scientists working primarily in coastal/estuarine systems. Ph.D. required; post-doctoral experience preferred. The successful candidate will be expected to maintain an extramurally funded research program, teach and direct graduate students, and establish a strong publication record and engage in significant professional service. Send résumé and cover letter by 13 May 1988 to: **Chairperson, Scientist Search Committee, Environmental Sciences Program, University of Massachusetts at Boston, Boston, MA 02125. An Affirmative Action/Equal Opportunity/Title IX Employer.**

The Eppley Institute for Research in Cancer, University of Nebraska Medical Center, invites applications for a tenure-track **FACULTY POSITION**. Responsibilities will include supervision of the Institute's AAALAC accredited animal facility which houses rodents. Candidates must have a D.V.M. from an accredited school of veterinary medicine, Board certification by ACLAM or eligibility for certification and be licensed in the state of Nebraska. The successful applicant will be expected to conduct a research program either in an area related to cancer biology or carcinogenesis, or in another area of biomedical science. Please respond to position #8-6069. Applicants should send a letter and curriculum vitae to: **Dr. Edward Bresnick, Director, Eppley Institute for Research in Cancer and Allied Diseases, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105.**

FACULTY POSITION (X-RAY CRYSTALLOGRAPHY) program in protein structure and design, University of Michigan. Applications are invited for a tenured or tenure-track position (rank open) associated with the Program in Protein Structure and Design. The academic appointment will be in the Department of Biological Chemistry, with a joint appointment in the Biophysics Research Division. We seek an individual who will interact with and complement the existing structure group in the Program, and who will develop a strong independent research program in the high resolution analysis of biological macromolecules. Existing facilities for x-ray diffraction include an area detector system, interactive computer graphics, and a variety of other computational facilities, among them the UM IBM 3090. Opportunities are available for a broad range of departmental and interdisciplinary collaborations. Interested candidates should send, by 15 June 1988 if possible, curriculum vitae documenting qualifications, professional accomplishments, and future research plans, together with names and addresses of three references, to: **Dr. Martha L. Ludwig, Biophysics Research Division, University of Michigan, 2200 Bonisteel Boulevard, Ann Arbor, MI 48109. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS, cell and molecular physiology. The Department of Physiology, The University of Wisconsin, Madison, invites applications for tenure-track, junior and senior level faculty positions in cellular and molecular physiology. The department especially encourages applications from individuals with research interests and regulatory or developmental aspects of cellular and subcellular function, but will give serious consideration to outstanding applications in other areas. The search will favor individuals whose research entails the use of biochemical, biophysical, or molecular biological probes of physiologically relevant processes. Excellent opportunities exist for participation in campus-wide interdisciplinary research and training programs. These positions will be available after 1 July 1988. *Women and minorities are specifically encouraged to apply.*

Applicants should send curriculum vitae, a summary of research interests and plans, and the names of three references to: **Dr. Richard L. Moss, Chair, Department of Physiology, University of Wisconsin, 1300 University Avenue, Madison, WI 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

NEUROBIOLOGY/ RESEARCH ON PAIN MECHANISMS

ONE RESEARCH STAFF POSITION

is now available at the Clinical Research Institute of Montreal. Candidates able to develop independent research projects on PAIN MECHANISMS are primarily sought. The candidate will be independent director of research laboratory and able to interact with existing groups in molecular biology/neurobiology. Pertinent and adequate postdoctoral formation is required. Position is at faculty level with no teaching responsibilities but with university affiliation for supervision of graduate students.

Application with CV and names of referees should be forwarded to:

Dr. Michel Chrétien, Scientific Director,
Clinical Research Institute of Montreal
110 Pine Avenue West,
MONTREAL, (Quebec), Canada
H2W 1R7
(514) 842-1481

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada; however, others are strongly encouraged to apply.

DO YOU THINK DNA SEQUENCING IS AN ART?

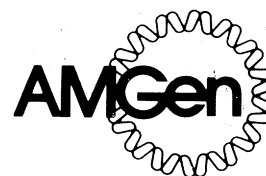
Do you appreciate the visual delight of a well resolved sequencing ladder and the power of the clear information obtained? We at **Amgen** do, and we appreciate even more the vital role our **Research Associates** in DNA Sequencing play in our pioneering work in Biotechnology. Without their support we would not be the industry leader in recombinant DNA technology we are today.

We're looking for more Research Associates to help us produce even more breakthroughs in the human pharmaceutical, human diagnostic, animal health care and specialty chemical areas. If you possess a B.S. or M.S. in Biochemistry, Molecular Biology or a related discipline, 1-2 years of experience in DNA sequencing, and want the kind of career opportunity, visibility and responsibility that only a rapidly growing company like Amgen can offer, we'd like to hear from you.

We offer an excellent compensation and benefits package, a spacious country setting in the scenic Conejo Valley (about an hour's drive northwest of Los Angeles), and a stimulating scientific environment. Submit your resume, in confidence, to:

Recruitment, Dept. #96
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer



RESEARCH SCIENTIST

At MIT's Biology Department, will lead research efforts studying capsid assembly in bacterial viruses. Requires Ph.D. in Physical Biochemistry with 2-3 years' postdoctoral experience, publications in refereed biochemical journals and expertise in application of light scattering, circular dichroism and ultracentrifugation to protein polymerization reactions. Familiarity with growth of bacteria and bacteriophage and microbial genetics would be an advantage. Supervisory experience preferred. MIT is a non-smoking environment.

Send CV and names of three references to Mr. Kenneth Hewitt, MIT Personnel Office, 400 Main Street, (Bldg. E19-239), Cambridge, MA 02139. Reference Job No. R88-047.

MIT is an affirmative action/
equal opportunity employer.

PRESIDENT UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH (UCAR) Boulder, Colorado

The University Corporation for Atmospheric Research, a 57-university nonprofit consortium, is seeking a President. UCAR, created in 1959 in response to university needs for service, leadership and advocacy for the atmospheric and related sciences, operates two national centers—the National Center for Atmospheric Research and the Institute for Naval Oceanography—and other programs in service to the scientific community.

Duties of the President include: formulating objectives, strategies, policies and programs for Board consideration; effectively executing programs; ensuring that UCAR plays a leadership role to articulate and satisfy national research needs in the atmospheric and related sciences; promoting the interests of the member universities and community; establishing and enforcing the highest standards of scientific and management excellence; obtaining adequate resources to pursue the goals of the Corporation.

Qualifications include: highest-quality scientific and management leadership ability and knowledge of the atmospheric or related sciences; demonstrated skills as an effective negotiator and advocate; experience in planning and managing large-scale research activities and / or sizable research institutions; and broad acquaintance with the university research community, policy-making bodies, and the private sector.

Activities of the President require extensive travel, including a significant fraction of time in Washington, D.C. Place of residence and other aspects of the position are a matter of negotiation with the UCAR Trustees.

The successful applicant is expected to be appointed no later than 1 September 1988. Applicants should send a letter of interest, a curriculum vitae and a list of publications so as to be received by 15 June 1988 to:

Dr. William E. Gordon, Chairman
UCAR President Search Committee - P.O. Box 3000, Boulder, CO 80307
Nominations are also welcome.

Further information is available from Ms. Dianne Bernier, (303) 497-1655.
UCAR is an equal opportunity, affirmative action employer.

POSITIONS OPEN

FACULTY POSITIONS

A center for Gene Structure and Function has been established by the RCMI program of the NIH and Hunter College. The Department of Biological Sciences invites applications for tenure-track positions at all professorial levels for its expanding program in that area. The department is especially interested in candidates with research interests in immunology and/or molecular genetics but those in other areas of eukaryotic molecular/cell/neurobiology are also encouraged to apply. Appointees are expected to establish an independent research program and to participate in team-taught courses in their areas of expertise at the undergraduate and/or graduate level. Send curriculum vitae, future research interests, and names of three referees to:

Professor Harvey L. Ozer
Department of Biological Sciences
Hunter College, City University of New York
695 Park Avenue
New York, NY 10021

*An Equal Opportunity/Affirmative Action Employer.
Minority candidates are encouraged to apply.*

FISHERIES MANAGEMENT TEACHING/RESEARCH POSITION. Tenure-track, 12-month, beginning fall 1988 at assistant professor level. Ph.D. required. Sixty percent teaching; including courses in population dynamics and fisheries management for undergraduates, and a graduate course in a related area. The candidate is expected to develop a fisheries research program in large impoundments in cooperation with resource agencies. Send résumé, transcripts, statements on teaching and research goals, representative reprints, and three letters of reference by 16 May 1988 to: **Dr. John R. Jones, Chair, Search Committee, School of Forestry, Fisheries and Wildlife, University of Missouri, Columbia, MO 65211.**

An Affirmative Action/Equal Opportunity Employer

FULL PROFESSOR OF ECOLOGY UNIVERSITY OF GENEVA

The Department of Anthropology and Ecology seeks applicants for a post of professor of ecology.

Teaching (in French) involves a basic course plus laboratory in general ecology as well as specialized courses in ecology. Qualified applicants should have a degree in biology (or the equivalent), an appropriate background in mathematics, statistics and computer applications to biology and field experience in ecology. The successful candidate will be expected to develop an independent research program in theoretical ecology.

Send curriculum vitae, list of publications, a statement of research interests and the names of three referees before 30 June 1988 to:

Secrétariat de la Faculté des Sciences
20, quai Ernest-Ansermet
1211 Genève 4
Switzerland

HERBARIUM DIRECTOR: We seek a systematist having revisionary and curatorial experience with angiosperms to serve as Director of the University of Kansas Herbarium, hold an assistant or associate professor position in the Department of Botany, conduct research, and teach courses in evolutionary biology. Preference will be given to those having administrative experience and/or a history of external grant support. The position is tenure-track or tenured, and the salary is commensurate with experience. Position available as of 1 January 1989. Applicants should submit (i) a curriculum vitae, (ii) a statement of research goals and curatorial/administrative experience, (iii) description of courses that the applicant could or would like to teach, (iv) copies of reprints and/or manuscripts, (v) letters of reference from at least three persons to be submitted by the closing date, 30 August 1988, to: **Christopher Haufler, Chair, Herbarium Director Search, Department of Botany, University of Kansas, Lawrence, KS 66045.** *The University of Kansas is an Equal Opportunity/Affirmative Action Employer. Applications are sought from all qualified persons regardless of religion, color, sex, disability, veteran status, national origin, age, or ancestry.*

AMERICAN ASSOCIATION OF PATHOLOGISTS, INC.
and
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN
PATHOLOGY, INC.

EXECUTIVE OFFICER

**Biomedical research association (AAP) and
consortium of university medical schools (UAREP) invite
nominations and applications for a joint appointment**

AAP responsibilities include: Management of a 2500-member professional association, a corporate society of the 30,000-member Federation of American Societies for Experimental Biology (FASEB), that promotes the scientific advancement and dissemination of knowledge with respect to the field of experimental pathology; the society sponsors scientific meetings and educational and training activities, publishes a quarterly newsletter as well as *The American Journal of Pathology*, and participates fully in the activities of FASEB.

UAREP responsibilities include: Administration of grants and contracts for member universities; coordination of the editorial preparation of the *Atlas of Tumor Pathology*; organization of teaching and research conferences cosponsored with member universities; coordination of development, production, and distribution of teaching monographs in pathology; negotiation and execution of contracts for studies of contemporary issues in occupational and environmental pathology and toxicology.

Position requires seasoned administrator with established record of scientific and management excellence. Applicants should submit curriculum vitae, personal bibliography, and summary of applicable management and administrative experience to David Korn or Robert Anderson, c/o AAP, 9650 Rockville Pike, Bethesda, MD 20814. Anticipated start summer/fall 1988.

VIRAL IMMUNOLOGIST

The Upjohn Company, a leader in worldwide research manufacturing and marketing of pharmaceuticals, chemicals and agricultural products, is seeking a Ph.D. scientist to join a growing research team dedicated to the development of novel vaccines for diseases of veterinary interest. As part of our continued commitment to research in this area, we are looking for applicants who have specific expertise in the research technologies needed to define viral proteins which confer serologically and cellularly mediated protection. They must be able to conceptually and strategically advance our knowledge in the area of epitope immunology and immunopotentiality, as it applies to the development of novel vaccines, both through individual projects, and through interaction with other scientists. To be considered, you should be a creative scientist and have relevant post doctoral expertise in monoclonal antibody and T cell cloning techniques and in assays used to define T cell populations.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits, including numerous lakes and a four-season climate. Upjohn offers a very competitive salary, commensurate with experience and an outstanding benefits program.

For confidential consideration, please call toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you. Please refer to Ad Number 21960-F when calling.

An Equal Employment Opportunity Employer M/F
Our commitment to scientific excellence continues...

Upjohn

RESEARCH ASSISTANT

DNA Sequencing Group

A challenging position is open in the DNA Sequencing Group at Cetus Corporation located in Emeryville, California. The successful candidate will join a team highly skilled in DNA sequence analysis and the latest molecular biology techniques. We encourage innovation and provide opportunities to become involved in a wide variety of research projects.

Applicants must have a B.S. in a relevant field, and have experience in a molecular biology laboratory. Preference will be given to applicants with prior DNA sequencing experience. Strong organizational skills as well as the capability to function independently are required.

Cetus Corporation is a leader in biotechnology-based therapeutics for cancer and infectious disease. We offer competitive salaries and excellent benefits. For confidential consideration, please send your resume to: Cetus Corporation, Box MBS, 1400 Fifty-Third Street, Emeryville, CA 94608. We are an equal opportunity/affirmative action employer.



ELECTRONICS/ MASS SPECTROMETRY ENGINEER

An individual is required to assume responsibility for a maintenance program involving seven GC/MS systems including three Nermag quadrupole instruments, two VG 70-series magnetic sector instruments and two older instruments. The successful applicant will have the ability to diagnose, repair and modify electronics at the component level, will have or develop a comprehension of the functioning, maintenance and repair of GC/MS instruments, and possess good communicative skills. Two research assistants are available to assist in routine maintenance. The engineer will have the option to participate in areas of instrumental development. In Spring 1989, the Mass Spectrometry Center will move into a newly constructed facility. The position carries an attractive salary and fringe benefits commensurate with applicant qualifications. Send a curriculum vitae by May 10, 1988 to: Dr. Ian A. Blair, Director, Mass Spectrometry Center, Pharmacology Department, School of Medicine, Vanderbilt University, Nashville, TN 37232. AA/EOE.



An Uncompromising Commitment to Scientific Excellence

The atmosphere at Genentech is uniquely tailored to maintain a standard of excellence, encourage creativity and provide personal and professional growth for the members of our multidisciplinary teams.

We encourage our people to conduct basic research, publish in the leading scientific journals, attend and present their work at scientific conferences, and to maintain close ties with the academic community.

We currently have a number of openings for individuals with Ph.D.'s, Master's and Bachelor's degrees within the following fields.

Basic Research

Cardiovascular
Cell Genetics
Immunology
Endocrinology
Neurobiology

Pharmacological Sciences

Cardiovascular
Drug Metabolism
Immunology
Endocrinology

Process Sciences

Protein Purification & Characterization
Formulations
Cell Culture R&D
Fermentation R&D

Medicinal & Biomolecular Chemistry

Genentech offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization.

We'll be attending the FASEB meeting in Las Vegas. See our postings in the placement service area or send your resume to Human Resources Department S-22, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. Please mark to the attention of Victor Smallberg for Basic Research and Med&Bio Chem positions, Eric Mankuta for Pharm Sci positions, or Joyce Goulden for Process Sci positions. An equal opportunity employer.

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POSITIONS OPEN

INSTRUCTOR. A nontenured research position is available to teach graduate students molecular biology techniques. Duties to include team research on molecular basis of gene expression through use of somatic cell genetics and yeast molecular biology. Require a Ph.D. in biochemistry and at least 2 years of postdoctoral research experience in molecular biology. Research experience must include techniques of DNA cloning and sequencing, site-directed mutagenesis, footprinting, amplification of genomic DNA by using PCR; isolation of drug-resistant mutants and yeast transformations. Submit curriculum vitae, current publication list, and three reference letters to: **Personnel Department, Requisition no. Y240, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235. An Equal Opportunity/Affirmative Action Employer.**

ISOTOPE GEOLOGISTS

The Institute of Geology at the Ruhr University Bochum (Germany) is establishing a research program in isotope geology and has one opening in stable isotopes and another one in radiogenic isotopes. The positions are for an "Akademischer Rat" (A12/A13; lifetime position after probation) and a "Wissenschaftlicher Mitarbeiter" (BAT III/BAT II A; 4-year postdoctoral position). The two appointments will be complementary, and the levels based on the experience of applicants. Ph.D. equivalent, prior experience in preparation techniques and mass spectrometry, and working knowledge of German are essential. Background in sedimentary systems is an advantage, but not precondition.

Deadline for applications, with two confidential letters of reference, is 6 May 1988. All correspondence to: **Institut für Geologie, Ruhr-Universität Bochum, D-4630 Bochum 1, FRG.**

MOLECULAR BIOLOGIST. A research position in molecular biology is currently available in our Department of Physiology and Medicine. The person appointed will collaborate with the group actively working in nonhuman primate lipoprotein biochemistry and metabolism. (This department's baboon resource exceeds 2000 in number). The position requires a Ph.D. in biochemistry/molecular biology with three or more years of experience. Salary and rank will depend upon qualifications and experience. Please send your curriculum vitae and research interests with the names and telephone numbers of three references to: **Personnel Director (838), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284. Equal Opportunity Employer M/F.**

MOLECULAR BIOLOGIST

The Winship Cancer Center of Emory University School of Medicine in Atlanta, Georgia, is recruiting a molecular biologist to work in the cancer-related fields of developmental biology, gene structure and regulation, oncogenic viruses and/or cellular growth factors. Experience with the use of transgenic technology would be especially desirable. A successful candidate will be recruited at the level of associate professor or professor, depending upon experience. The incumbent will occupy laboratory space in the new Winship Cancer Center building. This space is adjacent to multiple shared University facilities, including the microchemical facility for molecular biology, the fermentation laboratory, the cell sorter laboratory, the monoclonal antibody laboratory, the barrier mouse facility, etc. A successful candidate will have the opportunity to interact with colleagues and students through the Cancer Center, through the Department of Biochemistry and its related programs in molecular biology, through the interdepartmental program in genetics, and through the graduate division of Biological Sciences. Emory University Medical School has a broad clinical base encompassing five metropolitan hospitals and the regional cancer registry. It is located on the suburban Emory University campus, which it shares with the other graduate and professional schools, the undergraduate college, U.S. Centers for Disease Control, the Yerkes Primate Center, and the National Headquarters of the American Cancer Society. Interested candidates should send their curriculum vitae and the names of three references to: **Dr. Kenneth W. Sell, Director, Winship Cancer Center, Emory University School of Medicine, Atlanta, GA 30322, by 1 June 1988. Emory University is an Affirmative Action Employer.**

POSITIONS OPEN

LIPOSOME EXPERT

Senior position, basic and developmental research opportunity for growth and participation. Submit résumé, publications, salary history, and reference to:

**Technology Unlimited, Inc.
TK Division
P.O. Box 723
Wooster, OH 44691**

The Smithsonian Tropical Research Institute is hiring a **MANGROVE ECOLOGIST** to investigate mangrove forests after a large oil spill on the Caribbean coast of Panama. The position is temporary, with continuations possible until March 1992. Salary starts at \$27,172 per year plus possible additional overseas allowances. Applications, including curriculum vitae and names of three references, should be sent by 31 May 1988 to: **Dr. B. D. Keller, Smithsonian Tropical Research Institute, APO Miami, FL 34002-0011.**

MOLECULAR VIROLOGY/CELL BIOLOGY DEPARTMENT OF MICROBIOLOGY UNIVERSITY OF VIRGINIA

Applications are invited for a tenure-track position in molecular virology at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Position will include joint appointment in the Cancer Center. Candidates will be expected to maintain an active, independent research program, and to engage in limited teaching of graduate and medical students. The department offers a stimulating environment, including well-equipped facilities, and well-funded graduate and postdoctoral training programs. Applicants should submit curriculum vitae, a statement of current research activities and future plans, and the names of three people from whom letters of recommendation can be requested to: **Dr. Robert R. Wagner, Chairman, Department of Microbiology, University of Virginia School of Medicine, Box 441, Charlottesville, VA 22908.**

An Equal Opportunity/Affirmative Action Employer

NEUROSCIENCE POSTDOCTORAL RESEARCH POSITION: Muscle sodium channel—molecular biological studies involving the characterization of skeletal muscle sodium channel subtypes. Includes cloning of subtypes from developing, adult and denervated muscle, analysis of encoded proteins by oocyte microinjection and through probes of message expression in developing and mature muscle. Mechanisms of temporal and tissue-specific regulation of expression will also be studied. NIH pay scales. Send curriculum vitae and references to: **Dr. Robert Barchi, Director, Institute of Neurological Sciences, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6074.**

PHYSIOLOGY

The Department of Biological Sciences of l'Université du Québec à Montréal is seeking for a **TENURE-TRACK POSITION** in physiology. Candidates must have a Ph.D. in this field as well as postdoctoral experience. Proven ability in research in the physiological aspects of occupational health and safety is required as well as teaching experience in physiology. Teaching responsibilities (in French) will be in the fields of animal physiology, comparative, experimental and human physiology. The position is to be filled by 1 August 1988. Send curriculum vitae (in French), and three letters of reference, before 25 May 1988 to: **Dr. Jean Gingras, directeur, Département des sciences biologiques, Université du Québec à Montréal, C.P. 8888, Succursale "A", Montréal, Québec, H3C 3P8, Canada.**

POSTDOCTORAL FELLOW position available 1 August 1988 to study the three-dimensional structure of enzymes by x-ray crystallography and site-directed mutagenesis. Possible projects include the structure and mechanism of muconate lactonizing enzyme from *P. putida*, or the structure of recA. Candidates should be recent Ph.D.'s with experience either in molecular biology or x-ray diffraction. Send curriculum vitae and three letters of recommendation to: **Dr. A. Goldman, Waksman Institute, Rutgers University, P.O. Box 759, Piscataway, NJ 08855. Rutgers is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

PLANT CELL CULTURE PROFESSORSHIP

The Department of Botany and Plant Pathology at Michigan State University, together with the Michigan Biotechnology Institute, announces a joint, tenured faculty position for an accomplished investigator with expertise in plant cell culture to be filled at the full or associate professor level. Candidates should have demonstrated ability and research interest in the applications of plant cell culture. *Michigan State University and the Michigan Biotechnology Institute are Affirmative Action/Equal Opportunity Employers.* Please send curriculum vitae and names and addresses of three references by 7 May 1988 to: **Dr. Christine T. Stephens, Search and Selection Committee Chairperson, Department of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824-1312.** We welcome nominations as well as applications.

POSTDOCTORAL-BIOCHEMISTRY—2-year appointment to study the molecular aspects of protein-protein interactions of tissue culture systems. Salary: \$18,000 to \$20,000 with housing possible, family medical and dental provided. Modern privately funded laboratory. **Director, Biomedical Division, Noble Foundation, P.O. Box 2180, Ardmore, OK 73402.**

POSTDOCTORAL FELLOW AND TECHNICIAN

Sought for AIDS-related research with experience and interest in either:

- 1) Molecular biology, particularly RNA/DNA hybridization (in situ, Northern, Southern), and subcloning, or
- 2) Neurobiology of mammalian brain, particularly primary culture of neural cells, and histochemistry.

Positions include opportunities for advanced coursework, publication credit, and job advancement in the Public Health Service, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Laboratory of Immunoregulation, Bethesda, Maryland.

Biologist, microbiologist, biochemist—GS-09 \$22,907 per annum. Postdoctoral fellow \$24,000 to \$38,588 per annum. For position information contact: **Dr. L. Vitkovic: 301-496-7296. NIH/NIAD, 9000 Rockville Pike, Building 10, Room 11B13, Bethesda, MD 20892.** For qualification information contact: **Ms. Jane Schriver: 301-496-4634. U.S. citizenship required. NIH is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOW REGULATORY LIPID BIOCHEMISTRY

A position is available in a well-funded laboratory to participate in an ongoing research program focused on the biochemical characterization and cloning of key enzymes that modulate prokaryotic lipid metabolism. Candidates with a Ph.D. degree interested in applying contemporary techniques of molecular genetics, protein purification, and antibody production in this area should submit their curriculum vitae, reprints, and names of three references to: **Dr. Charles O. Rock, Biochemistry Department, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE (with potential for advancement) in molecular biology, experience with cell culture and peptides desirable. To work in a productive, funded laboratory at Harvard Medical School, investigating gastrointestinal peptides. Salary commensurate with qualifications and experience. Send curriculum vitae and the names of three references to: **Dr. Michael Wolfe, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP is available for a lipid biochemist interested in investigating the bioregulation, biosynthesis and degradation of the platelet activation factor and its interaction with other lipid mediators of inflammation. A strong analytical background is desired. Please send your résumé to: **Maureen Quigley, Professional Employment Representative, American Cyanamid Company, Medical Research Division, Lederle Laboratories, Pearl River, NY 10965. Equal Opportunity Employer M/F.**

Molecular Genetics Research

New positions are opening now through 1989 in the Molecular Genetics Research Department of Pfizer Research in Groton, Connecticut. These positions require a PhD plus two or more years of postdoctoral research experience in one or more of the following areas:

- Tissue specific transcription control
- Heterologous gene expression in mammalian cells
- DNA-binding proteins isolation/cloning
- Enhancer element characterization
- Trans-acting factor identification
- Development of transgenic animals

You will be expected to establish an independent research laboratory as part of a multidisciplinary group effort. Our group objective is to explore mechanisms which control tissue specific expression of selected genes in man in order to discover novel drugs which modulate those processes. Selected targets include arthritis, atherosclerosis and modulation of immune responses.

We offer an excellent opportunity for professional recognition and growth, a stimulating scientific environment, challenging research problems, a competitive compensation and benefits plan and location in an attractive coastal community in southeastern Connecticut.

Qualified candidates may submit resume, names of three references and a summary of research experience to: Jerry K. Larson, PhD, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



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Commission de la Fonction
publique du Canada

Biologist Drug Evaluator

**Health and Welfare Canada
Bureau of Human Prescription
Drugs
Ottawa, Ontario**

We require a scientist to evaluate experimental data in drug submissions from pharmaceutical companies to determine the pharmacological, toxicological, pharmacokinetic and clinical effects of central nervous system drugs. You will be required to summarize, assess and critically evaluate scientific data pertinent to the safety and efficacy of drugs, and to formulate judgments and reach practical decisions regarding the same.

You require graduation with a doctoral degree in pharmacology, toxicology or a related field from a recognized university, or a lesser degree with evidence of research experience equivalent to that of a doctoral degree, and some practical experience. Knowledge of research design for the preclinical and clinical research of central nervous system drugs and biostatistics are essential. Knowledge of English is essential.

We offer a salary ranging from \$48,139 to \$55,591 commensurate with your qualifications and experience.

Please forward your résumé and/or application form, quoting reference number

S-88-31-6247-47JG-G35, to:
Joan Girling (613) 996-8054
Public Service Commission of
Canada
Ottawa, Ontario
K1A 0M7

Closing date: May 12, 1988

Personal information you provide is protected under the Privacy Act. It will be held in Personal Information Bank PSC/P-PU-040, Personnel Selection Files.

The Public Service of
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Canada

RESEARCH OPPORTUNITIES AGRONOMIC RESEARCH

The Dow Chemical Company, in Midland, Michigan, is a recognized global leader in the agricultural chemical industry. Expanded research efforts in the area of plant genetic engineering have created an immediate need within the Biotechnology Laboratory in the Central Research Department for a:

PROTEIN CHEMIST

The successful candidate will have a Ph.D. in Protein Chemistry with experience in state-of-the-art techniques for protein isolation, purification and characterization. Research efforts will be directed toward the identification and characterization of agronomically important proteins.

The above candidate must also possess strong communications skills and a desire to carry out independent research while functioning as part of an interdisciplinary research team.

The Dow Chemical Company offers a stimulating work environment and a competitive salary and benefits package.

Qualified applicants should send resume to:

Technical Recruiting
Department PC-1
P.O. Box 1655
Midland, MI 48641-1655



The Dow Chemical Company is an Equal Opportunity Employer.

FELLOWSHIPS IN THEORETICAL NEUROBIOLOGY

The Neurosciences Institute invites applications for positions as Institute Fellows in Theoretical Neurobiology. Institute Fellows receive a stipend and are usually appointed for a period of two years with discretionary renewal for up to an additional two years.

The Institute is an independent organization located on the campus of The Rockefeller University in New York City. In addition to serving as the home of the Neurosciences Research Program, the Institute is a center of study and research for distinguished visiting neuroscientists. The Institute also supports a program of research in theoretical neurobiology which seeks to develop detailed simulations of neural function that are biologically based and experimentally testable. Current projects include the construction of categorization automata, analysis of synaptic modification mechanisms, and detailed simulations of various cortical and subcortical regions.

Applicants should be at the postdoctoral or assistant professor level. A background in experimental or theoretical neuroscience or related fields is required; training in physics or mathematics will be viewed with favor. Applicants should also have some computer expertise.

Address applications to Dr. W. Einar Gall, Research Director, The Neurosciences Institute, 1230 York Avenue, New York NY 10021. Include a short statement of interests, a curriculum vitae, and the names of three references.



The Neurosciences Institute
of the Neurosciences Research Program

NEW ENGLAND BIOLABS

New England Biolabs, a pioneer and leader in biotechnology located twenty miles north of Boston is seeking applicants.

Postdoctoral Positions

Gene Cloning—Candidate should have training in biochemistry/enzymology and molecular biology. Projects involve the cloning, overproduction and mutagenesis of restriction modification systems.

Molecular Genetics—Candidate should have strong background in molecular biology or bacterial genetics to study the interaction between restriction modification systems and the host cell. Knowledge of protein chemistry would be helpful.

In addition to competitive salary, New England Biolabs offers a very generous fringe benefits package. Attendance at meetings, publication of research results and open communication with others are encouraged.

Candidates please submit curriculum vitae with three references to:

New England Biolabs, Inc.
Human Resources
32 Tozer Road
Beverly, MA 01915-5510



POSTDOCTORAL SCIENTIST EXPLORATORY RESEARCH

Amgen is a dynamic and growing organization that is a recognized leader in recombinant DNA technology. Our leadership in developing erythropoietin and other products for human therapeutics, human diagnostics, animal health care and specialty chemicals has placed us firmly in the forefront of the industry. We currently have an opportunity for a Postdoctoral Scientist to contribute to our Exploratory Research Group.

Qualified candidates will have a Ph.D. in the avian molecular biology of growth physiology or disease resistance or a Ph.D. in the mammalian molecular biology of lipid metabolism, hematology, endocrinology or immunomodulators.

Amgen offers a stimulating and challenging research environment as well as an attractive location (about an hour northwest of Los Angeles). **Amgen** also offers a competitive compensation and benefits package. Qualified applicants should send a resume, in confidence, to:

Recruitment, Dept. #113
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320



Equal Opportunity Employer

DISTINGUISHED RESEARCH FELLOWSHIPS LOS ALAMOS NATIONAL LABORATORY

The Medical Radioisotopes Research Program is seeking outstanding recent Ph.D. recipients for the postdoctoral fellowships described below. All positions require responsibility for planning, initiation, and implementation of independent research and presentation of research results. The ability to work as part of a team is also required. Compensation of \$32,820-\$34,580 per annum provided; possible renewal for a second year.

Biochemist, medicinal chemist, or organic chemist to develop methods to label antibodies, using linkers to achieve high levels of attachment of chelating agents to antibodies. Synthesize linker-chelate conjugates to be covalently attached to antibodies at a site remote from the antigen-binding sites. Determine stability, affinity, and immunoreactivity of labeled antibodies. Experience in protein modification or immunological methods is desirable.

Synthetic inorganic coordination chemist or synthetic organic chemist to design and synthesize chelating agents for metal radionuclides and paramagnetic metals. The chelating agents must (1) form extremely stable complexes with the metal ions and (2) have suitable functional groups for covalent attachment to linker molecules and antibodies. Determine the stability of the chelates under simulated physiological conditions. Experience in synthesis, radio-labeling, or chelating reactions is required. **U.S. citizenship is required.**

Analytical, electroanalytical, inorganic, or radiochemist to develop chemical or electrochemical separation procedures on a no-carrier-added level to isolate radioisotopes of interest to the nuclear medicine research community. Perform chemistry in radiochemical hot-cells. Develop new radioisotope generator systems. Interact with radiolabeling and biodistribution researchers in the Program. Experience in analytical separations (ion-exchange, solvent extraction, electrodeposition) and gamma-ray analysis is desirable. **U.S. citizenship is required.**

Interested candidates should send a resume to Dr. Janet Mercer-Smith (biochemistry, medicinal or organic chemistry; synthetic inorganic coordination or organic chemistry) or to Dr. Dennis Phillips (separations chemistry) at INC-11, MS J514, Los Alamos National Laboratory, Los Alamos, New Mexico 87545 or phone (505) 667-2646 (Mercer-Smith) or (505) 667-4253 (Phillips).

To formally apply, send a resume, bibliography, three letters of reference, and graduate and undergraduate transcripts to Carol M. Rich (MS P290), Human Resources Development Division PD-88-017, Los Alamos National Laboratory, Los Alamos, New Mexico 87545.

Affirmative Action/Equal Opportunity Employer

University of California

Los Alamos

THE ABBOTT SCIENTIST IS AT THE HEART OF NEW ADVANCES IN DRUG RESEARCH

When it comes to new drug development in the treatment of vascular disease, the Abbott name comes up again and again. As a \$4.4 billion health care leader worldwide, we have the talent, strength and exceptional management to make us a successful innovator. We now seek the following Research Scientists to support our on-going advances within our Pharmaceutical Products Division.

PH.D. CARDIOVASCULAR PHYSIOLOGIST/ PHARMACOLOGIST

Responsibilities will entail discovery and developmental pharmacology of drugs for the indication of congestive heart failure, and will involve setting up models of congestive heart failure in small and large animals. Ph.D. in cardiovascular physiology/pharmacology required. Post-doctoral experience and a strong background in cardiac function supported by well-developed written and oral communication skills are essential.

Consistently recognized as a top American corporation, Abbott is able to provide a superior scientific environment at our headquarters just 30 miles north of Chicago on the Lake Michigan shoreline. We also offer excellent salaries and benefit packages that include profit sharing and stock retirement plan. For confidential consideration, please send your resume with salary history to: **Patricia Handy/Corporate Placement, Dept. SCI/4/22, Abbott Laboratories, Abbott Park, IL 60064.** Abbott is an affirmative action employer.

PH.D. BIOCHEMIST

As a member of our Renin Inhibitor Project Team, individual will set up and modify procedures in screening compounds for inhibitory activity against renin and other enzymes, determining drug plasma levels, studying stability of compounds, and in enzyme purification and kinetics. A Ph.D. in Biochemistry plus at least 6 years postdoctoral experience in HPLC and the areas mentioned above are essential. Experience in automated sample analyses and database management preferred.

ABBOTT LABORATORIES



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MEETING BOUND?

Abbott Representatives will be at the
FASEB meeting in Las Vegas, May 2-6.
To arrange an interview,
or if you will not be able to attend,
send your resume to Patricia Handy.

POSITIONS OPEN

POSTDOCTORAL POSITION to study peptide hormone receptors on a molecular level, including gene cloning, expression, structure-function relationships. Excellent environment available in multidisciplinary interdepartmental program incorporating peptide chemistry and electrophysiology into biochemical, cellular, and molecular investigations of the digestive tract. Send curriculum vitae, names of three references to: **Dr. L. J. Miller, Gastroenterology Research Unit, Mayo Medical School, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL POSITION BROWN UNIVERSITY

Position available for individual interested in areas of protein structure-function, gene structure and regulation, protein-nucleic acid interactions, or molecular mechanisms of recombination. Previous experience with (or desire to learn) protein chemistry, nucleic acid biochemistry, DNA cloning, genetics or in vitro systems. Please send résumé with desired starting date and list of three references to: **Arthur Landy, Division of Biology and Medicine, Brown University, Providence, RI 02912. An Equal Opportunity/Affirmative Action Employer.**

Applications are being accepted for a **POSTDOCTORAL POSITION** with opportunities for research in all phases (basic and clinical) of a radioimmunoconjugate cancer treatment program. Some experience in immunology, monoclonal antibodies, immunoassays, radioisotope labeling, or radioimmunoscinigraphy in animal models or in clinical trials would be helpful. Potential exists for independent investigation and future tenure-track position. Send curriculum vitae, brief description of prior research, and three references to:

Margaret A. Tempero, M.D.
Associate Professor of Medicine
University Medical Center
42nd and Dewey Avenue
Omaha, NE 68105-1065

POSTDOCTORAL POSITION available immediately for biochemist with experience in protein chemistry to participate in study of structure/function relationships in prostaglandin biosynthetic enzymes. Please send curriculum vitae and the names of three references to: **Dr. Richard Kulmacz, Department of Biochemistry, M/C 536, University of Illinois at Chicago, Chicago, IL 60612.**

POSTDOCTORAL POSITION available immediately for molecular biologist to investigate properties of a retrovirus produced by human embryonal carcinoma (EC) cells and mechanisms regulating virus replication and EC cell differentiation under direction of **Dr. David Bronson**. Annual salary ranges from \$20,500 to \$23,920, dependent upon experience. Please mail curriculum vitae with names and telephone numbers of three references to: **Personnel Director (837), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284. Equal Opportunity Employer M/F.**

POSTDOCTORAL POSITION SECTION ON VIRUSES AND CELLULAR BIOLOGY NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT NATIONAL INSTITUTES OF HEALTH

Applications are invited for a postdoctoral (Ph.D. or M.D.) position, available immediately, for in vivo and in vitro studies on molecular mechanisms of DNA replication, repair, and mutagenesis in mammalian cells.

A background in molecular biology or biochemistry is required, and preference will be given to candidates with experience in nucleic acid and enzyme chemistry. Salary will be commensurate with experience and qualifications. Please send curriculum vitae, the names of three references, and a brief summary of research accomplishments and goals to:

Dr. Kathleen Dixon
Section on Viruses and Cellular Biology
NIH, NICHD
Building 6, Room 1A15
9000 Rockville Pike
Bethesda, MD 20892
An Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to carry on genetic engineering of and to study regulation of gene for histidine decarboxylase from *Lactobacillus*. Background in microbial genetics is desirable. Send curriculum vitae, short résumé of laboratory experience, and names of three references to: **Jon Robertus, Department of Chemistry, University of Texas, Austin, TX 78712. Telephone: 512-471-3175.**

POSTDOCTORAL POSITION available to study the export of *E. coli* envelope proteins. Interactions between exported proteins and the proteins of the cellular secretory machinery will be analyzed using molecular genetic and biochemical approaches. Experience in bacterial genetics or molecular biology desirable. Send curriculum vitae and the names of three references to: **Dr. Carol Kumamoto, Departments of Physiology and Molecular Biology-Microbiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.**

POSTDOCTORAL POSITION available 1 June 1988 to study the mechanisms and genetics of resistance to pyrethroid, organophosphate, and carbamate insecticides in the German cockroach. Experience with toxicological techniques desirable. Position is a 1-year renewable appointment. Send curriculum vitae, three letters of reference, and a copy of transcripts to: **Dr. Jeffrey G. Scott, Department of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853.**

POSTDOCTORAL POSITION for recent Ph.D. (pharmacology or biochemistry) with experience in molecular biology, to study endothelial surface antigens in the intact lung. Project will address cellular and molecular mechanisms of endothelial activation both in the intact lung and microvascular cells in culture. Résumé and three letters of reference to: **C. Norman Gillis, Ph.D., Department of Anesthesiology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Yale University is an Equal Employment/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study the interaction of new antineoplastic agents and new therapeutic modalities with DNA in tumor and normal tissues. This work involves applying molecular biological techniques to defined sequence DNA and DNA isolated from murine model systems. Joint appointment will be held in an appropriate department of Harvard Medical School. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. B. A. Teicher, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS available in an interdisciplinary program on human immunodeficiency virus sequences in immune response and pathogenesis at the University of Massachusetts Medical Center and Harvard Medical School, New England Regional Primate Center. Participating laboratories include: **Drs. Harriet Robinson, Raymond Welsh, Christie A. Holland, Trudy Morrison, Carel Mulder, Norman Letvin**. Interested candidates should send curriculum vitae and names of three references to: **Program Director: Dr. Harriet Robinson, Department of Pathology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS

NIH-funded positions available in the Brain Research Institute at the University of California, Los Angeles (UCLA) Medical Center to investigate biochemical mechanisms of blood-tumor barrier permeability or receptor ligands to specifically image brain tumors in vivo. Research involves computer-aided 3-D quantitative autoradiographs of receptor binding to brain tumors and blood-brain barrier permeability. The salary is \$25,000 to \$30,000 per year, depending on experience. Submit curriculum vitae and names of three references to: **Keith L. Black, M.D., Division of Neurosurgery, UCLA Medical Center, Los Angeles, CA 90024. Telephone: 213-206-3356. UCLA is an Equal Opportunity and Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately for a scientist with experience with DNA probes and/or immunochemistry and immunocytochemistry; cell culture. A background in molecular biology is desirable. Research involves a study of the regulation of the synthesis and processing of proteins of the neuronal cytoskeleton in development and in the pathogenesis of neurodegenerative disease. Contact: **Dr. David Soiffer, Laboratory of Cell Biology, NYS Institute for Basic Research in Developmental Disabilities, 1050 Forest Hill Road, Staten Island, NY 10314.**

POSTDOCTORAL POSITION. Available immediately. Biochemist/biophysicist interested in the study of ribosome function using a combination of chemical modification and quantitative high-resolution electron microscopy. The applicant should be a recent Ph.D. with a strong background in protein chemistry and electron microscopy of macromolecules. Send curriculum vitae, summary of research experience, and names of three references to: **Dr. Joachim Frank, Wadsworth Center for Laboratories and Research, P.O. Box 509, Albany, NY 12201-0509. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITIONS IN ENDO-
THELIAL CELL BIOLOGY.** Research programs focus on role of venular endothelium in angiogenesis and transmicrovascular exchange processes. Emphasis on cell culture, surface receptors, intracellular signaling and cell/cell interactions. Experience in cell biology, biochemistry, or immunology desirable. Send curriculum vitae, names of three references, and statement of research interests to: **Harris J. Granger, Ph.D., Professor and Head, Department of Medical Physiology, College of Medicine, Texas A&M University, College Station, TX 77843.**

POSTDOCTORAL POSITIONS— PLANT MOLECULAR BIOLOGY UNIVERSITY OF FLORIDA

Postdoctoral positions are available immediately in the following areas: (i) Targeting and assembly of chloroplast membrane proteins. (ii) Molecular characterization of the *shrunk-2* locus of maize. (iii) Structure and function of the *viriparous-1* locus of maize. (iv) Molecular analysis of the citrus tristeza virus (CTV) genome. Candidates are being sought with a Ph.D. in biochemistry, molecular biology, genetics, or related discipline. Experience with recombinant DNA techniques as well as plant systems is desirable. Salary (\$20,000 to \$23,000) will depend upon background and prior experience. Please send résumé and three letters of reference to: **Kenneth Cline (chloroplasts and CTV), L. Curtis Hannah (shrunk-2), Donald McCarty (viriparous-1) c/o Interdisciplinary Center for Biotechnology Research, 1301 Fifield Hall, University of Florida, Gainesville, FL 32611.**

POSTDOCTORAL POSITIONS TRANSGENIC MODELING OF HUMAN DISEASE

MOLECULAR BIOLOGIST sought to study expression of the hepatitis B virus genome in transgenic mice. Opportunity to produce and analyze transgenic mice that express HBV-encoded polypeptides; to examine questions related to viral particle assembly, transport and secretion; to explore viral receptor biology; and to investigate the molecular basis of HBV induced to hepatocellular injury and malignant transformation. **CELLULAR IMMUNOLOGIST** sought to study the immune response to hepatitis B virus encoded antigens in transgenic mice. Opportunity to investigate immunologically mediated tissue injury, mechanisms of autoimmunity and immunological tolerance. Available immediately. *Applicants must be U.S. citizens or permanent residents.* Send curriculum vitae, statement of research interests, and names of three references to: **F. V. Chisari, M.D., Department of Basic and Clinical Research, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.**

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POSITIONS OPEN

POSTDOCTORAL POSITIONS—INSECT LIPOPROTEINS. Positions will be available after 1 July 1988 to study insect lipoprotein biosynthesis (*JBC* 261, 17174), apoprotein sequence and structure (*JBC* 262, 11794), control of apoprotein gene expression and lipoprotein function and metabolism. Experience in molecular biology is desired for one position. Salary commensurate with experience. Send curriculum vitae and the names, addresses, and telephone numbers of three references to: **Dr. Michael A. Wells, Department of Biochemistry, Biosciences West, The University of Arizona, Tucson, AZ 85716.** An Equal Opportunity/Affirmative Action Employer.

Applications accepted until position is filled.

POSTDOCTORAL POSITIONS MOLECULAR AND CELL BIOLOGY

Tumor Cell Biology Department has several funded postdoctoral positions available for investigators interested in studying signal transduction by the CSF-1 receptor (c-fms proto-oncogene) and its oncogene-coded (v-fms) counterpart. Current topics of research include: identification of "activating" mutations in the c-fms and v-fms transduction into target cells of different lineages, and biochemistry of oncogene- and receptor-mediated signal transduction. Ongoing studies emphasize interdisciplinary molecular, cell biological, and biochemical approaches, with a focus on hematopoietic systems. Previous experience in molecular and cell biology and/or biochemistry is preferred, and general familiarity with oncogenes, growth factors, and their receptors would be desirable. Minimum stipend: \$22,000 per annum plus fringe benefits. Send curriculum vitae, brief statement of research interest, and names of three referees to: **Dr. Charles J. Sherr, Department of Tumor Cell Biology, St. Jude Children's Research Hospital, Memphis, TN 38104.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION. Hematopoietic Growth Factors: A position is available 1 July 1988 to study the biologic and biochemical properties of B cell and hematopoietic growth factors, and the regulation and expression of growth factor genes. A background in molecular biology or biochemistry is preferred. Please send curriculum vitae and names of three references to: **Dr. Peter Quesenberry, University of Virginia, School of Medicine, Box 502, Charlottesville, VA 22908.**

POSTDOCTORAL RESEARCH ASSOCIATES

Positions for NCI postdoctoral training program in molecular and cellular mechanisms of carcinogenesis are available at The University of Texas System Cancer Center (UTSCC)—Science Park. Research programs focus on the following areas: somatic cell genetics, DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, mechanisms of lymphomagenesis, normal and tumor cell differentiation, biochemical genetics, growth factors, and retroviruses. Applicants must be U.S. citizens or permanent residents, and have a Ph.D., M.D., or D.V.M. degree. For application forms contact: **Dr. Thomas J. Slaga, Director, UTSCC, Science Park—Research Division, P.O. Box 389, Smithville, TX 78957.** Telephone: 512-237-2403. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL OR RESEARCH ASSISTANT PROFESSOR POSITION. Available 1 July 1988 to study central neuronal mechanisms which regulate gastrointestinal function using neurophysiological and neuropharmacological techniques. Research project involves surgical dissection and stimulation of peripheral nerves serving visceral structures and recording extracellular single-unit response in CNS. Experience in microiontophoresis and micropressure desirable. Submit curriculum vitae and names of three references to: **Dr. William D. Barber, Department of Anatomy, College of Medicine, University of Arizona, Tucson, AZ 85724.** Closing date for applications 6 May 1988. An Affirmative Action/Equal Opportunity Employer.

22 APRIL 1988

CAREER OPPORTUNITIES AT BECKMAN INSTRUMENTS

Beckman's Diagnostic Systems Group, located in Southern California, is actively seeking highly motivated professionals for exceptional opportunities in the following areas:

Manager, Clinical Chemistry Systems

Will manage the development of new Clinical Chemistry Reagents, Calibrators and Controls (liquid and dry) for Clinical Chemistry Systems. Will also manage the development of new instrumentation in conjunction with the engineering and software departments. Requirements include a PhD in Chemistry with over 10 years industrial experience in instrument and reagent development. Excellent leadership and communication skills are required, along with experience managing groups of 10-20 involved in multi-discipline projects.

Staff Scientist

Will plan, design and conduct investigations to determine stability and performance of clinical chemistry reagents, calibrators and controls. Will also investigate analytical system problems. Requirements include a PhD degree with at least 2 years industrial experience; MS with 6 years; BS with 10 years. Excellent supervisory and communication skills are required.

Staff/Sr. Scientists

Will develop EIA reagents for automated analyzers. Experience in immunoassay development and design, along with experience in methods development is required. Supervisory background and experience would be helpful, along with good communication skills. Requirements include a PhD with 0-2 years experience; MS with 2-4 years.

Sr. Scientist

Will conduct studies to develop ion-selective electrodes and develop lasting methods and reagents using ion-selective electrode technology. Requirements include a strong background in organic synthesis or polymer chemistry, with industrial experience developing ion-selective electrodes highly desirable. Excellent communication skills required along with PhD in Electrochemistry or Organic Chemistry and 2-4 years experience.

Sr. Biologist

Will perform research and development leading to hybridization probe diagnostics. Requirements include a PhD or MS in Microbiology, Molecular Biology or Biochemistry with 0-4 years experience in recombinant DNA and/or nucleic acid chemistry. Familiarity with tissue culture, immunocytochemistry, DNA probes or virology highly desirable.

Biologist

Must have hands-on experience in molecular biology, rDNA and/or protein chemistry. Will prepare bacteriophage, plasmid DNA's and recombinant proteins to aid in the development of recombinant based medical diagnostics. Requirements include a BS with 2-4 years experience; MS with 0-2 years in Microbiology, Biology, Bacteriology or Chemistry.

We offer excellent compensation and benefits packages. Please send resume with salary history to: **Beckman Instruments, Inc., Professional Staffing-SCI/MG, 200 S. Kraemer Blvd., Brea, CA 92621.** An affirmative action employer.

DIAGNOSTIC SYSTEMS GROUP

BECKMAN

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RESEARCH SCIENTIST EXPLORATORY RESEARCH

Amgen is a dynamic and growing organization that is a recognized leader in recombinant DNA technology. Our leadership in developing erythropoietin and other products for human therapeutics, human diagnostics, animal health care and specialty chemicals has placed us firmly in the forefront of the industry. We currently have an opportunity for a Research Scientist to contribute to our Exploratory Research Group.

Qualified candidates will have a Ph.D. and at least 2-4 years of postdoctoral experience in the molecular and cellular biology of any of the following disciplines: neurobiology, lipid metabolism, bone formation, soft tissue regeneration, hematology, endocrinology or immunomodulators. Experience in cDNA cloning and gene expression as it relates to these disciplines is highly desirable.

Amgen offers a stimulating and challenging research environment as well as an attractive location (about an hour northwest of Los Angeles). **Amgen** also offers a competitive compensation and benefits package. Qualified applicants should send a resume, in confidence, to:

Recruitment, Dept. #112B
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320



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Sandoz Ltd., a leading Swiss-based international company, specializing in pharmaceuticals, agrochemicals and dyestuffs; is offering a

POSTDOCTORAL FELLOWSHIP

for a period of one year at its headquarter research laboratories, Biopharmaceutical Department, in Basel, Switzerland.

To a person with a recent PhD in biochemistry or biological sciences, this challenging position offers the possibility of conducting and publishing original research in studies on the in vitro metabolism of xenobiotics. The objectives are the identification, characterisation and evaluation of mono-oxygenases involved in the detoxification of drugs of interest. The position requires a very good knowledge of Cyt. P-450 enzymology. Experience in analytics, immunoassays, radioisotopes and hybridoma methodology is desirable.

Applications, including curriculum vitae should be sent to:

SANDOZ, LTD.
Personnel Department
Ref. 8802
Attn: Mr. R. Zbinden
CH-4002 Basel (Switzerland)



PROTEIN CHEMIST

Merck Sharp & Dohme Research Laboratories is currently offering an excellent career opportunity for a protein chemist to join the expanding Department of Cellular and Molecular Biology. Research in this department is applied to the analysis and expression of genes of potential pharmaceutical interest.

Responsibilities for this position will include protein purification and characterization techniques such as HPLC, FPLC, radio-immunoprecipitation, ELISA, gel electrophoresis and immunoblotting.

An M.S. or B.S. degree in Biochemistry, Molecular Biology or the equivalent, with at least 2 years of broad and significant experience in protein chemistry is required. Experience in tissue culture and general molecular biological procedures is desired.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit resume and three letters of recommendation to **Susan R. Jenkins, Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065.**

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

Research Scientists/Associates

San Francisco Bay Area

Triton Biosciences Inc. is a biotechnology company focused on diagnostics and pharmaceuticals for cancer and other life threatening diseases. This entrepreneurial subsidiary of Shell Oil Company is seeking goal-oriented researchers with experience in the diagnostics industry to help create high quality products that fill critical medical needs. Current opportunities include:

Infectious Disease

Requires a PhD in Microbiology or equivalent experience. Duties will include the purification and antigenic analysis of viral proteins, evaluation of monoclonal antibodies and the construction of sensitive immunoassays. Refer to Box SC.

Molecular Immunology

Requires a PhD in Immunology or Biochemistry with further postdoctoral experience in the immunological and molecular characterization of protein antigens. Background in tumor markers, cancer immunology and immunoassay development desirable. Refer to Box RW.

Hybridoma

Requires a PhD or equivalent with hands-on experience in all aspects of hybridoma generation and monoclonal antibody production. Active participation in the design of experimental approaches for the development of immunological reagents for the diagnosis of cancer or infectious disease is required. Knowledge of antibody purification and conjugation is desirable. Refer to Box RW/YT.

New Cancer Marker

Requires a PhD in Cancer Biology, Immunology or equivalent experience with expertise in the evaluation of cancer markers. Duties include effective interaction with a multidisciplinary team in evaluating new cancer markers for diagnostic use. Refer to Box GL.

Histopathology/Oncogene

Requires a PhD in Biological Sciences or equivalent with experience in immunohistochemistry. Duties will include the evaluation of antibodies to oncogenes, mucins and other new cancer markers as well as developing immunohistochemical reagents. Refer to Box YT.

Infectious Disease

Requires a BS/MS degree in Microbiology or equivalent experience. Duties will include growth and purification of virus, antibody evaluation by immunoblot and enzyme immunoassays, and active participation in the construction of sensitive immunoassays. Refer to Box SC2.

Molecular Protein Chemistry

Requires a BS/MS degree or equivalent in biochemistry with experience in the isolation, purification and characterization of proteins and peptides. Further background in the modification and conjugation of proteins to haptens and enzymes required. Knowledge of immunoassay techniques desirable. Refer to Box RW2.

Histology/Cancer Marker

Requires a BS/MS degree in Biological Sciences or equivalent experience in immunohistochemistry. Knowledge of fixed and frozen section preparation, production of antibodies, and performance of immunohistochemical assays is desired. Refer to Box YT2.

Hybridoma

Requires a BS/MS or equivalent in Biological Sciences with experience in cell culture, animal immunization and monoclonal antibody production. Knowledge of antibody purification and immunoassay techniques desirable. Refer to Box RW/YT2.

Triton offers competitive salaries and benefits including relocation assistance. For consideration, send C.V. with salary history and references to: Triton Biosciences Inc., 1501 Harbor Bay Parkway, Alameda, CA 94501. An Equal Opportunity Employer.



POSITIONS OPEN

POSTDOCTORAL RESEARCH FELLOW: The Department of Reproductive Medicine at the University of California, San Diego (UCSD), has an opening for a postdoctoral fellow (postgraduate research physiologist) beginning summer or fall 1988, for research in fetal physiology. Studies include physiological regulation of cardiovascular and endocrine systems, and of fluid balance in the fetus. Background in physiology and animal experimentation desired. Salary: \$24,000 per year. Send letter, curriculum vitae, and three names of references to: **Robert A. Brace, Ph.D., Department of Reproductive Medicine T-002, UCSD Medical Center, 225 Dickinson Street, San Diego, CA 92103.** All applications must be received by 17 June 1988. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCHER: Required immediately to work on the cloning, sequencing, and regulation of dehydrogenases involved in steroid hormone and chemical carcinogen metabolism. Salary and position title commensurate with experience. This is an NIH-funded position, and is available for 1 to 3 years. Please send curriculum vitae and names of three references to: **Dr. Trevor M. Penning, Department of Pharmacology, University of Pennsylvania School of Medicine, Philadelphia, PA 19064-6084.**

POSTDOCTORAL TRAINING is available in molecular, cellular, and nutritional aspects of carcinogenesis in the Eppley Institute for Research in Cancer and Allied Diseases of the University of Nebraska Medical Center. Research programs include, for example: Chemistry of formation and metabolism of nitrosamides, nitrosamines, and hydrazines; mechanisms of carcinogenesis of polycyclic hydrocarbons and other carcinogens; lymphomagenesis; cell differentiation; and growth factors; biochemical genetics particularly as relates to susceptibility and resistance to cancer development; mutagenesis and DNA repair; molecular biology of cancer; viruses and cell immortalization and transformation; toxicology of food additives; and oncogenes and cancer. The Eppley Institute is well equipped for both in vitro and in vivo work. Postdoctoral applicants should have a Ph.D. in chemistry, biochemistry, microbiology, pharmacology, or related disciplines. Stipends are competitive. Please submit curriculum vitae, three letters of recommendation and summary of research interests to: **Dr. Edward Bresnick, Director, Eppley Institute for Research in Cancer and Allied Diseases, University of Nebraska Medical Center, Omaha, NE 68105.** Refer to position #8-6073 in all correspondence. *An Equal Opportunity/Affirmative Action Employer.*

PROTEIN CHEMISTS AND CELL BIOLOGISTS IN BLOOD RESEARCH. Research positions (postdoctoral fellow to senior research scientists) immediately available for qualified M.D.'s/Ph.D.'s to participate in multiple NIH-funded research projects related to interaction of complement and coagulation systems in platelet activation and blood clotting. Prior training or expertise in physical biochemistry, protein chemistry and/or cell biology desired. Position for highly motivated M.D. desiring basic or applied research training in transfusion medicine also available. Contact: **Peter J. Sims, M.D., Ph.D., Oklahoma Medical Research Foundation, 825 NE 13th Street, Oklahoma City, OK 73104.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH AND DEVELOPMENT SCIENTIST/PROJECT. Kallestad Diagnostics, located on Lake Hazeltine in suburban Minneapolis, currently has opportunities in our Research and Development Department for individuals to assist in the development of human enzyme immunoassays and non-isotopic, quantitative immunoassays associated with clinical instrumentation. Applicants must have a minimum of an M.S., or equivalent, in biochemistry or immunology with 2+ years of industrial experience developing ELISA's from product concept through manufacturing or familiarity with assay automation on medical laboratory instruments. We offer competitive salaries and benefits, and pleasant working conditions. If you have the above qualifications and are interested in joining a fast growing organization, please send detailed résumé in confidence: c/o R. Gay, Kallestad Diagnostics, 1000 Lake Hazeltine Drive, Chaska, MN 55318. *Equal Opportunity Employer.*

POSITIONS OPEN

RESEARCH ASSOCIATE position open 1 September 1988 to work in classical and quantum gravity theory. Requirements: Ph.D., publications, strong background in general relativity, quantum gravity, differential geometry, and field theory. Initial appointment is for 1 year, renewable for second year, subject to availability of funding. By 10 May 1988, curriculum vitae and one or more letters of recommendation should be received by: **James W. York, Department of Physics and Astronomy, CB# 3255, University of North Carolina, Chapel Hill, NC 27599-3255.** *UNC is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE for university in Central Ohio. To conduct research in molecular genetics, including design and execution of recombinant DNA experiments; isolate, subclone and determine the DNA sequence of genes in *Neurospora*; analyze the regulation of gene expression by isolation of messenger RNA for gel electrophoresis and Northern blot analysis; map transcriptional start and stop sites and intron sequence of cloned genes. Requires a Ph.D. in biochemistry and 2 years of research experience in biochemistry which includes 1 year doing DNA-mediated transformation, molecular cloning, DNA sequencing, and isolation and Northern analysis of RNA. Forty hours per week; 8 a.m. to 5 p.m.; \$22,440 per year. Qualified applicants reply immediately with résumé to: **A. MacLean, JO# 3041428, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

RESEARCH ASSOCIATE PENN STATE

Responsible for conducting research in protein chemistry and enzymology. Requires a Ph.D. in chemistry with a strong background in biophysical chemistry, experience in EPR of metalloproteins and protein purification, isolation and characterization of carbohydrate-containing proteins is also required. Send résumé by 9 May 1988 to:

**Dr. Joseph Villafranca
Evan Pugh Professor of Chemistry
The Pennsylvania State University
412 Chandlee Laboratory
University Park, PA 16802**

*An Affirmative Action/Equal Opportunity Employer.
Women and minorities encouraged to apply.*

RESEARCH POSITION

The Universities Space Research Association (USRA) has an ongoing need for research scientists and assistants to investigate processes or products which are limited or affected by conditions not shared by the Space and Earth environments (e.g., microgravity, high vacuum, etc.). Candidates should be able to quantify these limitations and effects theoretically and/or experimentally. They will be expected to: develop theories for various heat and mass transport processes encountered during crystal growth and solidification, develop numerical codes and perform analysis on mass redistribution, interface stability, defect formation in structural, electronic, and optical materials, and/or evaluate the effects of residual gravitational forces on materials and processes. Additionally, candidates could provide assistance with ground-based and flight hardware related to studies to ascertain the potential benefits of processing materials in Space. Work will be conducted in the Microgravity Sciences Division of the Space Science Laboratory, NASA/Marshall Space Flight Center. Scientists must have Ph.D. in related field (e.g., materials science or physics). Assistants must have undergraduate degree in related field. The appointment will be for 1 year, renewable. Salary commensurate with experience (minimum: \$33,000 per year for scientists) with full medical and retirement benefits. Send résumé to: **USRA, Dr. James M. Van Alstine, 4950 Corporate Drive, Suite 100, Huntsville, AL 35806.** *USRA is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH POSITIONS AVAILABLE: NIH-funded positions at postdoctoral to research assistant professor level to be involved in testing the hypothesis that $[Ca^{2+}]$ is the primary regulator of smooth muscle contractile function. Myoplasmic $[Ca^{2+}]$ is measured with aequorin and correlated with 1,4,5-IP₃, myosin phosphorylation, shortening velocity, and stress. Contact: **Chris Rembold M.D. or Richard Murphy Ph.D., Box 146, University of Virginia, Charlottesville, VA 22908.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

RESEARCH SCIENTIST. The Microsurgical Research Laboratories invites applications from a Ph.D. with postdoctoral experience for assistant professor of surgery (tenure-track). The candidate should complement and be committed to collaborative work with two clinician/researchers and a Ph.D. physicist involved in studies of microcirculation, tissue ischemia and electrical injuries. The researcher will be expected to develop an externally funded research program and cross appointment in a basic science department of the Medical Faculty of McGill University will be encouraged. Salary: \$30,000 (under review). Send statement of research interests, curriculum vitae and three letters of recommendation to: **C. L. Kerrigan, M.D., McGill University, Division of Plastic Surgery, Royal Victoria Hospital, 687 Pine Avenue West, Montreal QC H3A 1A1.**

In accordance with Canadian immigration requirements, consideration, in the first instance, will be given to Canadian citizens and permanent residents of Canada. Others are encouraged to apply and will be considered.

RESEARCH SCIENTIST

Experienced Ph.D. in neuropharmacology, neurotoxicology, or neuroteratology to study the effects of environmental exposure to trace elements, particularly the role of aluminum on the developing brain and cognitive function. Incumbent will be expected to provide quarterly reviews of the literature on aluminum. An ability to communicate with both peer and lay groups essential. Salary range: \$40,000 to \$50,000 commensurate with experience. Send curriculum vitae and three letters of reference to: **Personnel (Job Ref. #531), NYS Institute for Basic Research in Developmental Disabilities, 1050 Forest Hill Road, Staten Island, NY 10313.** *M/F/H Affirmative Action/Equal Opportunity Employer.*

RESEARCH SPECIALIST to perform basic research in plant molecular genetics with DNA plant viruses. Specific duties include preparation of protoplasts from plant and cultured cells, transfection of protoplasts with caulimovirus and recombinant DNA, and detection of replication intermediates and gene products as a result of transfection with foreign DNA. Must be proficient in plant protoplast preparation, transfection of protoplasts using electroporation technology, molecular cloning/restructuring of DNA, and analysis of gene expression by hybridization blotting, immunosorbent tests, and enzymatic assays. Ph.D. in plant pathology, genetics, or biochemistry and at least 2 years of relevant postdoctoral experience are required. Forty hours per week; \$21,000 per year. Send résumé to: **T. Moore, KY704457, Department for Employment Services, 300 South Upper Street, Lexington, KY 40508.**

SENIOR RESEARCH ASSOCIATE—Position available for protein chemist or molecular biologist to work in the field of capillary electrophoresis on problems of biological significance. Work will include analysis and purification of picomole quantities of material. The program involves collaboration with Harvard Medical School and the Biotechnology industry. One to 2 years of postdoctoral experience desirable. Send résumé and three references to: **Dr. B. L. Karger, Barnett Institute, Northeastern University, 360 Huntington Avenue, Boston, MA 02115.** *Northeastern is an Equal Opportunity/Affirmative Action, Title IX University.*

SKIN BIOLOGIST

Estee Lauder, Inc., a world leader in quality cosmetics and skin care, is seeking a highly motivated individual to join our Biological Research Unit.

The successful candidate will have a Ph.D. in either biochemistry, physiology, or immunology. Some postdoctoral experience preferred as well as experience working with mammalian skin.

This position offers an excellent working environment, salary, and company-paid benefits.

Please send curriculum vitae and names of three references to:

**Professional Recruitment
Estee Lauder, Inc.
125 Pinelawn Road
Melville, NY 11747**

BioHybrid Technologies, Inc.

BioHybrid Technologies is a Massachusetts based corporation developing artificial internal organs which incorporate living cells. Current emphasis is on diabetes research with pancreatic islets and beta cells.

Research Scientist

A Senior Scientist position is available for a highly motivated individual with a background in cell biology. Requires PhD or MD with a minimum of two years post-doctoral research experience involving mammalian cell culture. Familiarity with islet/endocrine research desirable.

BioHybrid Technologies, Inc.

Attn: Personnel
910 Turnpike Road
Shrewsbury, MA 01545

BIOTECHNOLOGY/ DIAGNOSTICS RESEARCH & DEVELOPMENT

At the Baxter Healthcare Corporation, Pandex Division, our breakthroughs in innovative immunoassay technology have put us at the forefront of this field while helping drive our substantial rate of growth. Creative and independent Scientists at the Ph.D, MS and BS level are now needed to support our expanding biotechnology efforts in the following areas:

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At Pandex you'll find a unique scientific environment supported by the Fortune 75 Baxter, yet within an atmosphere where you'll play a key and independent project role while being recognized for your contribution. Our organization is located in an attractive suburban area 30 miles north of Chicago and we offer excellent compensation. For confidential consideration, please send resume to: Anne McNicholl, Personnel Director, Baxter Healthcare Corporation, Pandex Division, 909 Orchard Street, Mundelein, IL 60060. Equal Opportunity Employer.

Pandex Division

Baxter

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Advanced research projects that are well conceived, well funded and well managed are par for the course at Abbott Laboratories. We're a \$4.4 billion healthcare leader with an outstanding reputation for sound management and technical innovation. Those strengths show through in our Chemical and Agricultural Products Division and the career opportunity we offer.

Molecular Biologist/ Agricultural Microbiology R&D

We seek a PhD in Molecular Biology with a minimum of 2 years postdoctoral experience to conduct basic research in microbial insecticides and develop new products based on recombinant strains. Good communication skills are essential and industrial experience in microbial insecticides is preferred.

Abbott Laboratories is headquartered in an attractive suburban area north of Chicago. We provide an excellent salary and benefits program featuring profit sharing and employee stock purchase plans. For more information, send a resume in strictest confidence to: Keith Allen/Corporate Placement, Dept. 4/22, Abbott Laboratories, Abbott Park, IL 60064. Abbott is an affirmative action employer.

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RESEARCH SCIENTIST/ ASSOCIATE

Biotechnology Instrument Systems

PHARMACIA LKB Biotechnology is seeking a creative person with extensive knowledge and experience in biochemistry/molecular biology to help develop tools for biomolecular separation and analysis. Emphasis of the position will be the investigation of new instrument/reagent concepts for new products.

Highest consideration will be given to self-motivated individuals with broad interests and skills and the interest to work in the laboratory to develop novel methods and create prototype systems. Good communications skills are important. An M.S. or Ph.D degree and relevant postgraduate experience are preferred. Please send resume to:

Human Resources Department

PHARMACIA LKB
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Pharmacia

Pharmacia LKB Biotechnology

In Redwood City, California, you'll find a talented group of researchers who are focusing on some of the most challenging biotechnological issues in the world today. At Genelabs we have a single aim: to develop new therapeutic and diagnostic products for selected human health care problems. The issues we face can't be solved with traditional approaches.

To make major breakthroughs takes a better plan. The Genelabs' methodology: a strategic combination of proprietary technologies, international collaborations and a hand-picked, research-driven scientific and management staff.

MOLECULAR BIOLOGIST

PhD with 2-3 years experience in cDNA cloning and expression in eukaryotic cells. Will be performing transfections into lymphoid cells, expression and then assay using antibodies against the protein. Initial work will be in a joint project between Genelabs and a nearby university.

MOLECULAR GENETICIST

PhD with a minimum 3 years postdoctoral experience in mammalian molecular genetics. Demonstrated expertise in the construction, characterization and screening of genomic libraries. Will isolate and map new genetic markers within the human genome using novel proprietary techniques.

Our work environment is exceptional in our expanding facilities located in the Seaport Centre on the San Francisco Peninsula. Please forward CV and names of 3 references in confidence to: GENELABS INCORPORATED, 505 Penobscot Dr., Redwood City, CA 94063. Attn: Human Resources. EOE.



GENELABS
INCORPORATED

Pharmacologist

Syntex, an international leader in the pharmaceutical and health care industry has an immediate opening in our Palo Alto research headquarters for a Pharmacologist.

In this key position, you will assume leadership responsibilities as a staff researcher in the development of new drugs for the treatment of gastrointestinal disorders. You must have a PhD in pharmacology, biochemistry or physiology and 2-6 years' experience in gastrointestinal research. A strong basic research background and publications list are required. Industrial experience in preferred.

Other positions currently available for
BS/MS Biologists/Biochemists/Chemists.



Syntex offers a competitive salary, relocation and benefits package in a campus-like setting. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. PS/S, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.

BIOCHEMICAL SCIENCES RESEARCH

Merrell Dow Research Institute, a world-wide leader in pharmaceutical and biological research, has two immediate openings for Senior Research Biochemists in the Department of Biochemical Sciences. Successful candidates will join a multidisciplinary group of biochemists and medicinal chemists to pursue new approaches to the prevention of atherosclerotic and degenerative diseases.

LIPID ENZYMOLOGIST

We seek a Ph.D. biochemist with 3-5 years of documented experience in the assay and purification of lipolytic enzymes, interfacial catalysis in monolayer, emulsion, and membrane substrates, and a broad understanding of the role of lipids in disease states. This challenging career opportunity requires an enthusiastic, highly-motivated individual interested in molecular mechanisms that underly disease states.

FREE-RADICAL BIOCHEMIST

We seek a Ph.D. biochemist with 3-5 years of documented experience in measurement of lipid peroxidation in biological membranes and cells, the chemistry of free radicals in solution, in lipid bilayers, and in cell membranes and a working knowledge of mechanisms of oxygen radical damage and the role of metals in lipid peroxidation. The position requires an individual who is strongly self-motivated and able to closely interact with other chemists, biochemists, and pharmacologists.

Merrell Dow Research Institute is located in suburban Cincinnati and offers excellent compensation, comprehensive benefits, and relocation assistance.

For confidential consideration, please send your curriculum vitae with names of three references to:

Personnel Services Manager
(Refer to Job Code RLJ)

Merrell Dow

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BIOMEDICAL MASS SPECTROSCOPIST

The Department of Pharmacology, of Vanderbilt University invites applications for a Research Associate position from individuals wishing to develop a career in biomedical mass spectrometry. The established, multi-disciplinary Mass Spectrometry Center has three magnetic sector and four quadrupole instruments and purchase of a TSQ instrument is contemplated. The successful applicant will have a recent Ph.D. in Chemistry or the Biomedical/Pharmaceutical Sciences with experience in mass spectrometry and the ability to interact effectively with a wide variety of biomedical scientists, while developing independent lines of research and funding. Suitability-qualified candidates will be eligible for a tenure-back position. Interested applicants should send curriculum vitae and names of three references by June 15, 1988 to: **Dr. Ian Blair, Director, Mass Spectrometry Center, Pharmacology Department, School of Medicine, Vanderbilt University, Nashville, TN 37232. AA/EOE.**



POST-DOCTORAL

Post-Doctoral positions are available for research on the Bio-Chemistry and Molecular Biology of the components of connective tissues. A background of Collagen, Propeoglycan or Glycoprotein Bio-Chemistry with experience in Molecular Biology is desirable. Applicants must have U.S. citizenship or permanent resident status. Send resume to:

N.A. KEFALIDES, M.D., Ph.D.
Connective Tissue
Research Institute

**UNIVERSITY
OF PENNSYLVANIA**
University City Science Center

3624 Market Street
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RESEARCH & DEVELOPMENT OPPORTUNITIES

5 Prime → 3 Prime, Inc. has the following Research & Development positions available:

SENIOR SCIENTIST **Molecular Biology Research**

Ph.D. in appropriate discipline. Those with 2 years post doctoral experience will be given preference. Position requires in-depth experience in molecular cloning and related rDNA techniques.

RESEARCH ASSOCIATE
Molecular Biology Product Development
M.S. or B.S. degree in biology with a minimum of 2 years experience in broad-based rDNA technology.

5 Prime → 3 Prime is an emerging biotechnology company that is building a core research group. The company's operations are located in a new facility 35 miles southwest of Philadelphia. These positions offer long-term growth opportunities both professionally and financially.

Please send C.V. and 3 references to:
Director of Professional Recruitment
5 Prime → 3 Prime, Inc.
117 Brandywine Parkway
West Chester, PA 19380



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Research Scientists

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Pioneer new advances in drug metabolism research and related products

Research is the cornerstone of our innovations at Schering-Plough. Resulting in products that answer the needs of the worldwide health care community. As a contributing member of our Drug Metabolism Department, you'll help support new drug discoveries and developments. We currently have the following openings for scientists at both our Bloomfield and Lafayette, NJ facilities:

Principal Scientists (2)—To design, conduct and supervise drug metabolism/pharmacokinetic studies in animals and humans. Will also develop and perform assays (GLC, HPLC, RIA and others) for drugs and their metabolites; isolate, purify and characterize metabolites from biological fluids; and prepare written reports and manuscripts. Requires Ph.D. in either chemical or biological sciences, preferably with post-doctoral training and 3 years' relevant experience in drug metabolism. Must be a strong leader with good communications skills.

Senior Scientist—Will develop RIA for drugs and/or their metabolites and conduct drug metabolism studies. Requires Ph.D. in chemistry or biological sciences plus 0-3 years in bioanalytical method development for drugs in biological fluids. Working knowledge of protein/peptide metabolic disposition helpful, as well as good communications skills and supervisory potential.

Senior Scientist—To develop new methodologies and participate in design and performance of *in vitro* and *in vivo* metabolism studies to support drug discovery. Requires Ph.D. with strong background in biochemistry, pharmacology, physiology and analytical methodology, including 0-3 years' experience in drug metabolism. Good communications skills and supervisory potential would be ideal.

Research Scientists—To conduct drug metabolism studies, both *in vitro* and *in vivo*, and perform drug assay (GLP, HPLC, and others) in biological fluids. Requires B.S./M.S. in biological sciences and 1-3 years' directly related experience.

To learn more about our challenges and your compensation, please send your resume, with a clear indication of position desired, and salary history in confidence to: Mr. Louis DeMartino, Schering-Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.



Schering-Plough

POSITIONS OPEN

SENIOR RESEARCH SCIENTIST. Ph.D. in virology/microbiology required. Seeking an experienced highly qualified virologist willing to work with human immunodeficiency virus in a laboratory setting. Strong molecular biology background essential with capability to develop and carry out AIDS research projects. Please send curriculum vitae and names of three references to: **Dr. A. E. Friedman-Kien, Department of Microbiology, New York University Medical Center, 550 First Avenue, New York, NY 10016. Equal Opportunity Employer M/F.**

SYSTEMS NEUROSCIENTIST: To establish an independent research program in motor control supported by extramural funding, preferably in the vestibular modulation of motor patterns in animals. The applicant may participate in an interdisciplinary program including experimental and theoretical approaches to basic and clinical research in posture, the vestibular system, and motor control, within a broader neuroscience institute. Ph.D. or equivalent is required; salary and staff rank commensurate with experience and qualifications. Send complete curriculum vitae, a brief statement of research interests, selected reprints, and three letters of recommendation to: **Search Committee, Neurological Sciences Institute, Good Samaritan Hospital and Medical Center, 1120 NW 20th Avenue, Portland, OR 97209-1595. Equal Opportunity/Affirmative Action Employer.**

TOXICOLOGIST PHARMACOLOGIST to be supervisor and assistant director of university based clinical analytic laboratory in mid-Atlantic region. Position carries faculty appointment at instructor or assistant professor level depending upon qualifications. Expertise in GC, GC/MS, HPLC necessary. *The institution is an Affirmative Action/Equal Opportunity Employer.* Please address inquiries to: **Box 61, SCIENCE.**

VERTEBRATE PHYSIOLOGIST

Indiana State University, Department of Life Sciences invites applications for a tenure-track appointment in vertebrate physiology at the level of assistant/associate professor. Persons qualified in the area of cardiovascular or respiratory physiology are encouraged to apply. A successful candidate will be expected to obtain extramural funding, to develop and maintain a vigorous, independent research program, and to teach in an area of specialization. Minimum requirements: Ph.D., postdoctoral and teaching experience. Salary and rank commensurate with qualifications. Send curriculum vitae, a brief description of current and future research interests, and have four letters of reference sent from individuals familiar with your work to: **Dr. Timothy Mulkey, Chairperson, Physiology Search Committee, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809.** Review of applications will begin 15 May 1988 and continue until the position is filled. *An Equal Opportunity/Affirmative Action Employer.*

JPL/NASA VISITING SENIOR SCIENTIST ASTROPHYSICS DIVISION SCIENCE OPERATIONS

The Jet Propulsion Laboratory invites applications to the Visiting Senior Scientist Program in the Astrophysics Division at NASA Headquarters to coordinate and assist in the management of science mission operations in NASA's Astrophysics Program. Duties include cognizance over all aspects of astrophysics science operations during the study and development phases of a mission, and management of science operations for these missions during the observing phase. This activity includes assessment of program objectives, plans and performance. Tenured faculty investigators with experience in the operation of astronomy experiments or missions are the preferred choice. Normal assignment in the Visiting Senior Scientist Program does not exceed 2 years. The desired start date is early summer of 1988. *Appointees must be U.S. citizens or permanent residents, and are expected to return to their home institution following their NASA assignment.* Please provide curriculum vitae, bibliography, and the names of four references to:

**Dr. Harry Ashkenas, 180-900
Department U50
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109
Telephone: 818-354-8251**

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POSITIONS OPEN

A major national trade association is seeking a **TOXICOLOGIST** to monitor animal and clinical safety tests, provide administrative and technical support to industry science committees, and develop and manage a safety information program. Applicant should have a Ph.D. degree or a Masters degree with Certification, and experience in developing protocols and conducting toxicity/safety testing. The applicant should also have demonstrated excellent communication skills. Familiarity with computers and data base management is a plus. Applicant should forward a résumé, including a list of references, publications and presentations, and salary history to: **Dr. G. N. McEwen, Jr., Vice President—Science, The Cosmetic, Toiletry and Fragrance Association (CTFA), 1110 Vermont Avenue, N.W., Washington, D.C. 20005. CTFA is an Equal Opportunity Employer.**

COURSES

SUMMER COURSES IN GROSS ANATOMY, HISTOLOGY, EMBRYOLOGY AND NEUROANATOMY

Will be offered to medical, dental, health science, and medical illustration students by the Department of Anatomy and Cell Biology, Georgetown University, starting 20 June 1988. For further information, contact:

**Dr. Martin Dym, Chairman
Department of Anatomy and Cell Biology
Georgetown University
Georgetown University Medical Center
3900 Reservoir Road, NW
Washington, D.C. 20007
Telephone: 202-687-1051**

PROGRAM

UNDERGRADUATE FIELD TRAINING PRIMATE SOCIAL ECOLOGY: Outstanding undergraduate applications are being accepted for participation in NSF-funded program involving 30 days of field research on the social ecology of stump-tail macaques in Mexico this summer and follow-up independent study during the subsequent academic year with **Dr. Rasmusen** of Wisconsin Regional Primate Center. Awards include free tuition, room/board, and \$1500 stipend. Academic credit available. *Applications from minority and women undergraduates encouraged.* NSF Program, The School for Field Studies, 376 Hale Street, Beverly, MA 01915. Telephone: 617-927-7777.

SYMPOSIUM

SYMPOSIUM ON OXYGEN BINDING HEME PROTEINS: Structure, Dynamics, Function and Genetics will be held 9 to 13 October 1988 at Asilomar Conference Grounds, near Monterey, California. Discussion will center on the dynamics and thermodynamics of ligand binding in monomeric and allosteric proteins, with an emphasis on the use of site-directed mutants and potential clinical applications. For information, contact: **Professor James Satterlee, Department of Chemistry, University of New Mexico, Albuquerque, NM 87131.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP is available July 1988 to study the effects of mutations in the insulin receptor on insulin action. Recent Ph.D. graduates with background in recombinant DNA or cell biology are encouraged to apply. To qualify for this NIH training grant position, the applicant must be a U.S. citizen or permanent resident. Applicants should send their curriculum vitae and three letters of reference to: **James N. Livingston, Box 693, University of Rochester School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, NY 14642.**

POSTDOCTORAL FELLOWSHIP in molecular endocrinology, NIH(NRS)-supported, available 1 July 1988 to study control of pituitary hormone secretion. Applicant must be U.S. citizen with Ph.D. in molecular biology or related field. Send curriculum vitae and names of three references to: **Dr. Jerome Hershman, Endocrinology-W111D, West Los Angeles VA-UCLA Medical Center, Los Angeles, CA 90073.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP MARINE SCIENCE

Skidaway Institute of Oceanography, a unit of the University System of Georgia, invites applications from new or recent doctorates in science with interests in physical oceanography, marine chemistry, marine geology, or biological oceanography for a postdoctoral position. The 2-year fellowship is available 1 July 1988, and will be awarded on a competitive basis, with primary emphasis placed on research potential. The recipient may pursue research interests independently or in association with resident faculty. Send curriculum vitae, a statement of research interests, and names of three references to: **Richard J. Buchner, Assistant Director, Skidaway Institute of Oceanography, P.O. Box 13687, Savannah, GA 31416. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP IN NEUROANATOMY-NEUROPATHOLOGY at Harvard Medical School. Research on aging, Alzheimer's disease, and limbic system. Send curriculum vitae to: **M. Mesulam, M.D., Neurology Department, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.**

GEORGE S. WISE POSTDOCTORAL FELLOWSHIPS

The George S. Wise Faculty of Life Sciences at Tel Aviv University offers each year postdoctoral fellowships commencing on 1 October in basic and applied biology.

The Faculty is engaged in such research areas as anatomy, taxonomy and physiology of plants; anatomy, sociobiology and physiology of animals; marine biology; cellular and molecular biology and genetics; lipid and protein research; bioenergetics; neurobiology; immunology; virology; cancer biology; biotechnology and nature preservation.

Application forms can be obtained from: **The Dean, The George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel.** Deadline for applications is 30 May of each year.

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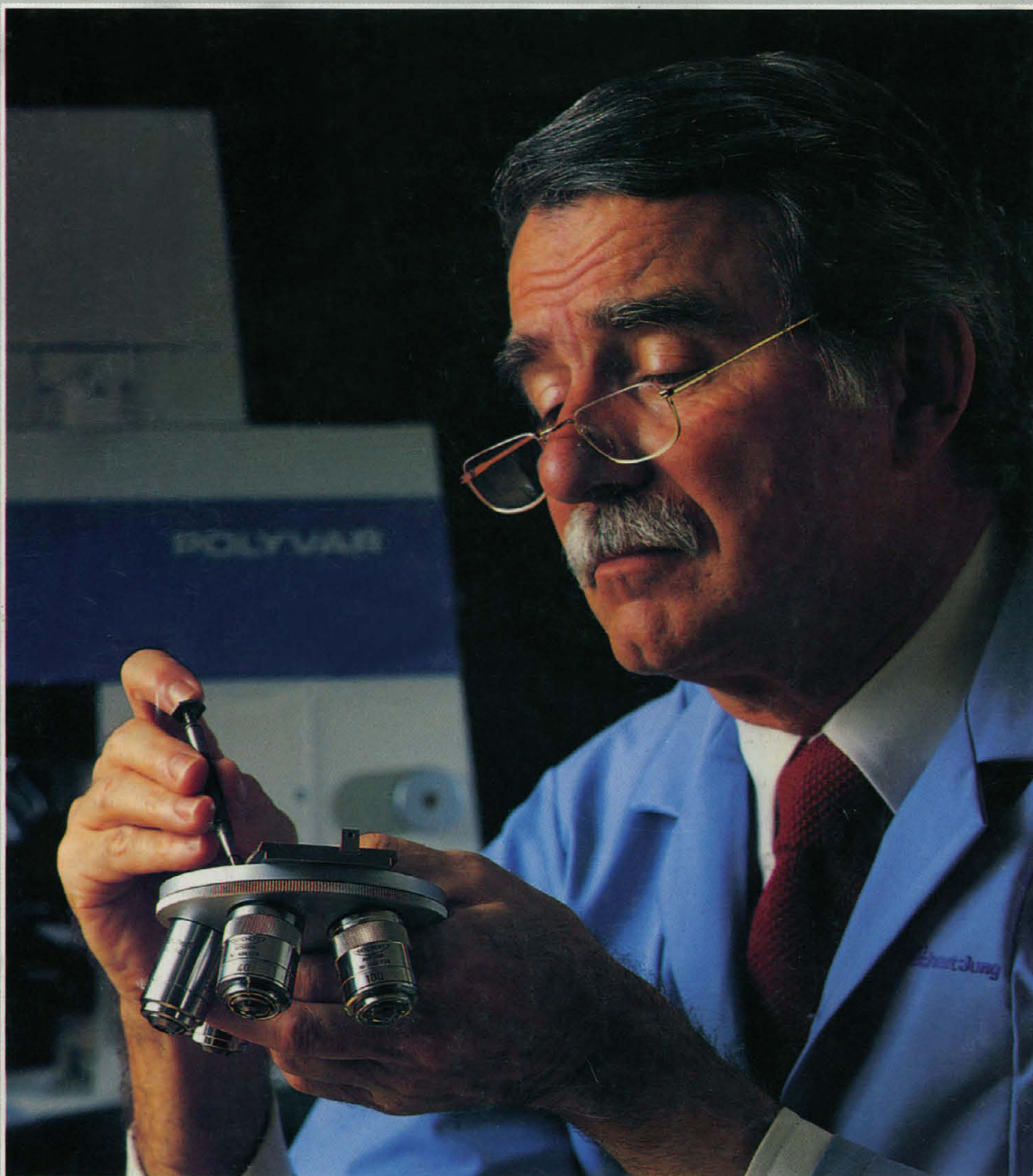
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