Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing, no abbreviation. Text must be typed. Advertisements 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 grounds of race, sex, religion, color, national origin, handicap, or sexual preference. SCIENCE reserves the right, in its discretion, to decline to publish any advertisement submitted to it.

LINES CLASSIFIED ADVERTISING DEADLINES: Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date). Preferably your advertising should be in by 4 p.m. To contact: Scharag 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.

LINES CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, INTERNSHIP, AND SO FORTH): $38.00 per line, $30 minimum, per week (minimum charge covers one inch on a single column; one inch equals 10 lines of 25 characters and spaces per line). No charge for use of box number. No agency commissions. Advertisements must be less than 4 inches. No cash discount. Prepayment required for all foreign ads. Purchase order should include 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. (See instruction panel on the inside front cover for explanation). 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 by $38.00 and add the 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 are not allowed for some degree of flexibility and/or adjustment.)

CANCELLATION POLICY: NOTE: A cancelled ad made after Thursday, two weeks prior to issue date incurs 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 Lines Classified ads less than 1/6 page in size (39 lines) to: SCIENCE Classified Advertising, 1333 H Street, NW, Room 420, Washington, DC 20005, Telephone: 202-326-6555.


Blind ad replies should be addressed as follows:

Box (give number)

1333 H Street, NW
Washington, DC 20005

POSITIONS WANTED

Aquatic Biologist, recent Ph.D. seeks postdoctoral or temporary research position. Has extensive experience in various aspects of culturing and bioassay of daphnids and algae. Box 80, SCIENCE.

Aquatic Toxicologist: Ph.D. seeking position in industrial/consulting firm. Experience includes in vitro and in vivo testing. Knowledgeable in FIFRA, TSCA, and FDA GLPs and testing guidelines. Box 81, SCIENCE.

Biochemist, Ph.D. Principal investigator with 15-year academic experience. Experence includes AAALAC, and GMP. Expertise in biophysical, biochemical, and biophysical chemistry, biophysics, and cell biology. Box 82, SCIENCE.

American University, ASSISTANT PROFESSOR, PHYSICAL BIOCHEMISTRY. A tenure-track position is available for academic year 1989 to 1988, beginning fall 1988, at The American University in Washington, D.C. Responsibilities include teaching undergraduate and graduate physical chemistry, establishing an externally funded research program in biochemistry, advising and counseling graduate students. Qualifications: Ph.D. required, postdoctoral experience preferred. Applicants should submit curriculum vitae, complete research statement, three letters of recommendation, and a copy of one published paper. Box 83, American University, Office of the Dean, School of Arts, Sciences, and Graduate Studies, American University, Washington, D.C. 20016. Application materials received by 15 June 1988 are assured of full consideration. The American University is an Equal Employment Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

Positions Open

Assistant Professor—The Department of Chemistry and Biochemistry and the Center for Agricultural Biotechnology of the University of Maryland, College Park announce the opening of a tenure-track joint assistant professorship. The successful candidate will be expected to initiate a research program in the area of plant biochemistry, and to establish an interface between the Department and the Center. Investigators whose research interests include the biochemistry and/or enzymology of plant cell walls or plant biochemistry are especially encouraged to apply. The joint appointee will have a graduate laboratory space in chemistry and biochemistry, a one-half teaching load and full access to departmental facilities and graduate students. A resume, a synopsis of research interests, and three letters of recommendation should be sent by 15 August 1988 to: John W. Kozarich, Center for Agricultural Biotechnology, H.-J. Patterson Hall, University of Maryland, College Park, MD 20742. The University of Maryland is an Equal Employment Opportunity Employer.
University of Michigan Medical School, Department of Biological Chemistry, is inviting applications for a faculty position at the rank of ASSISTANT PROFES- SOR. Candidates should have a Ph.D. in organic chemis- try with postdoctoral training in the isolation and charac- terization of enzymes and proteins, with special emphasis on enzymes, protein chemistry, and use of techniques such as GC and HPLC. A strong interest and publications in the area of enzyme mechanism is necessary. Teaching responsibilities are expected to exceed 5 to 15% of effort. Send résumé to: Dr. M. J. Coon, Chairman, Department of Biological Chemistry, The University of Michigan Medical School, Ann Arbor, MI 48109. 0606. A nondiscriminatory, Affirmative Action Employer. Code 41.

ASSISTANT PROFESSOR

The Institute for Advanced Studies in Biological Pro- cess Technology in the College of Biological Sciences of the University of Minnesota invites applications for a tenure-track position at the rank of assistant professor of genetics and cell biology or microbiology. Applicants must have a Ph.D. in either microbiology, genetics, biochemistry or a related field. We are seeking an individual whose research interests are directly related to the genetics, physiology or metabolism of microorgan- isms. Individuals with an interest in the streptomycetes are encouraged to apply. Applicants must have a minimum of 2 years of postdoctoral training, demonstrated research achievements, and potential to develop an independent research program. Preference will be given to individuals who have an interest in application of their research to biotechnology.

Tenure-track responsibilities for this position will reside in the Department of Genetics and Cell Biology or the Department of Microbiology. This position is available beginning in the fall of 1988. Salary is negotiable based upon applicants previous experience. Applicants should send a letter summarizing their research interests and goals, current vi- tae, relevant reprints of recent research, and three letters of recommendation to: Dr. Michael C. Fleckinger, Director, Institute for Advanced Studies in Biological Process Technology, 1470 Gortner Avenue, University of Minne- sota, St. Paul, MN 55108.

Applications should be postmarked no later than 31 July 1988.

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

ASSISTANT PROFESSOR OF PHARMACOLOGY—DRUG ABUSE RESEARCH. The Depart- ment of Pharmacology and Toxicology at the University of Arkansas for Medical Sciences anticipates one, or possibly two, tenure-track positions in drug abuse research. Applicants to these positions will have a joint appointment in the Department and in the new Center for Alcohol and Drug Abuse Research. Applicants are sought with a background of postdoc- toral research experience in the molecular aspects of drug abuse or alcoholism are preferred, although investigators with strong accomplishments in other areas of substance abuse research will be considered. Interested applicants should submit curriculum vitae to: Dr. Donald E. McMillan, Professor and Chairman, Department of Pharmacology and Toxicology, University of Arkansa- for Medical Sciences, 4301 West Markham Street, Mail Slot 611, Little Rock, AR 72205.

UNIVERSITY OF MINNESOTA, MORRIS

One-year sabbatical replacement faculty position in geology, ASSISTANT PROFESSOR OR IN- STRUCTOR level beginning 16 September 1988. Area of special interest is environment and sedimentology. Participation in teaching physical geology and introductory field methods courses is required. College level teaching and administrative responsibilities are defined by related experience required. M.S. in geology required. Ph.D./Ph.D. candidate desired. Discipline offers B.A. degree in geology and earth science education. Salary is open and competitive with academic institutions. Send résumé, transcripts, three letters of recommendation by 17 June 1988. Address: Dr. Robert M. Roosen, Chairman, Department of Mathematics Division, University of Minnesota, Morris, MN 56267. The University of Minnesota, Morris is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, University of Cali- fornia, Los Angeles, invites applications with a strong interest in research in drug metabolism, pharmacoki- netics and toxicology. The successful candidate will have a strong background in chemistry, the ability to establish a productive research program and to effectively teach graduate and medical students. Please send curriculum vitae, bibliography, summary of profes- sional accomplishments and goals, and the names of three references to: Chair, Search Committee, UCLA Medical Center, Department of Pharmacology, 10843 Le Conte Avenue, Los Angeles, CA 90024—1735. The University of California is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (TENURE-TRACK)

CLINICAL MICROBIOLOGY LABORATORY DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY UNIVERSITY OF MINNESOTA

A tenure-track faculty position is available for candidates with an M.D. degree and substantial training in labor- tory medicine/pathology or infectious diseases with a mini- mum of 3 years of postdoctoral experience or research in clinical microbiology. Candidates with current or potential research interest in microbial genetics, molecular biology, and/or cell biology are encouraged to apply. Experience and competence in current molecular technology is desirable. Demonstration of research productivity is necessary, in- cluding publications in peer-reviewed journals. The individual selected to contribute to Clini- cal Microbiology Laboratory services, development of new diagnostic tools, and the teaching of postgraduate medical students is expected. The individual will be expected to develop an independent research program.

Applicants should send curriculum vitae and three letters of recommendation to: Donald E. McKeown, Clinical Microbiology Search Committee, University of Min- nesota, Box 198 UMC, Department of Laboratory Medicine and Pathology, 420 Delaware Street S.E., Minneapolis, MN 55455.

Deadline for receipt of applications is 15 November 1988. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encour- ages applications from women and minorities.

THE SALK INSTITUTE

ASSISTANT ASSOCIATE PROFESSOR

The Salk Institute Molecular Biology and Virology Laboratory (MBVL) is seeking candidates to undertake investigations of gene expression and development. Current areas of research in MBVL include: oncogenic proteins and cell transformation (W. Eck- hammer); tRNA-recognition factors and development in transgenic mice (R. Evans); protein phosphorylation and signal transduction (T. Hunter); transcription factors (K. Jones); sexual differentiation in Drosophila (A. Lamb); oncogenes and other cellular oncogenes and genes involved in proto-oncogenes and gene therapy (L. Verma); immortalization and transformation (M. Vogt); and gene amplification and DNA replication (G. Wahl). The Salk Institute offers a highly interactive environment, with a number of research groups working in areas of molecular biology and the neurosciences. The Institute is in close proximity to several major research institutions.

Interested individuals may submit an application to: MBVL Search Committee, P.O. Box 85800, San Diego, CA 92138. This includes curriculum vitae, a brief description of present and future scientific endeavors, and names of references.

The Salk Institute is an Equal Opportunity Employer, M/F/H/V.

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 in a comprehensive experience in molecular genetics of contractile proteins, membrane channels or membrane receptors. The candi- date will be expected to establish a laboratory and to interact closely with active ongoing laboratories working in biochemistry, cell biology, and cell biology of the cardiovascular system. The position is within a research-oriented Section of Cardiology. Please send curriculum vitae and the names of three references to: Morton F. Arnsdorf, M.D., Chief, Section of Cardiology, University of California, 1423, 5841 South Mary- land, Chicago, IL 60637.

ASSISTANT, ASSOCIATE, OR PROFESSOR OF PLANT PATHOLOGY

The Department of Plant Pathology, University of California, Davis, invites applications for a tenure-track, assistant, associate, or full professor position in plant pathogenic fungi, effective 1 January 1989. Candidates must have a Ph.D. degree with at least 2 years of postdoctoral experience in the area of plant pathology as described on the relevant position. Examples of research areas that would be considered appropriate include: the molecular biology or physiology of pathogenic fungi; the isolation and identification of pathogenic fungi; the genetics of plant pathogenic fungi; the evolution of plant pathogenic fungi; or the biochemistry of plant pathogen-host specificity. Teaching responsibilities will include preparation of an introductory course on plant pathology, and an advanced seminar. Applicants should submit curriculum vitae, transparencies, publications, and a brief description of research goals, and arrange for three letters of reference to be sent to: J. G. Hancock, Department of Plant Pathology, University of California, Berkeley, CA 94720, by 1 September 1988. The University of California is an Equal Opportunity/Affirmative Action Employer.

BIOTECHNOLOGY STORY WRITERS

A new genetic engineering quarterly magazine is looking for freelance writers with experience and journalism backgrounds for feature articles on the biotechnology industry and latest technology. Work can be done from personal computer users are preferred. Candidates should submit their qualifications with credits and samples to: G. Kawasaki, Editor, 1858 Swan Circle, Costa Mesa, CA 92626.

CELL, BIOLOGY/BIOCHEMISTRY: VISITING ASSISTANT/ASSOCIATE PROFESSOR for up to 3-year appointment to teach cell biology and biochemis- try and assist in introductory biology majors course for 1988-89. Send CV and applications for a research program and involvement of undergraduates encour- aged. The Department of Natural Sciences is a multi- disciplinary department which offers B.S. degrees in biological sciences, chemistry, physics, microbiology, environmental science, biochemistry, and general sci- ence. Send curriculum vitae and names of three refer- ences to: Biology Search Secretary, Department of Natural Sciences, The University of Michigan—Dear- born, Dearborn, MI 48128—1491. Application screen- ing will begin 15 June 1988. The University of Michigan—Dearborn is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

CHAIRPERSON, DEPARTMENT OF PHYSI- OLOGY AND BIOPHYSICS: The University of Mis- souri, Kansas City invites applications for the posi- tion of professor and chairperson of the Department of Physiology and Biophysics. Candidates should have ex- tendte teaching experience and be established investiga- tors with a record of original contributions and partici- pation in appropriate professional organizations. Candi- dates with administrative background are preferred. The Medical Center in Kansas City is an academic health center. There are four health professional schools on the campus—Schools of Medicine, Nursing, Health Related Professions and Dentistry. The search com- mittee for this position will interview candidates in January. Send curriculum vitae, brief statement of background, and names of references to: Dr. John E. O'Donnell, Chairman, Department of Pharmacology and Toxicology, the Universi- ty of Missouri School of Medicine, 2500 North State Street, Kansas City, MO 64110. Deadline for applications is 1 July 1988.

27 MAY 1988
COUNTY DIRECTOR/ADVISOR (Headquar- ters: Marin County): The University of California (UC), Division of Agriculture and Natural Resources (DANR), Cooperative Extension (CE) is seeking a career-track academic candidate who is responsible to the CE North Central Regional Coordinator. The position is a 2-year term, renewable, full-time lecturer position in the Marin County program in Marin County. See that effective educational and research programs are carried out; direct the personnel administration of the Extension staff, maintain effective communications within the organization, develop an adequate county Extension budget funding; develop; maintain good working relationships with various public/private organizations within the county. Reporting to the Marin County Board of Supervisors and the County Administrator for the county budget process. A minimum of 3-5 years’ experience in education or related disciplines in the field of education and experience in agricultural sciences and/or Extension related fields is required. Demonstrated experience in county Extension extension, implementation of agricultural programs in an agricultural-urban county is desired. An understanding of basic CE programs, including agriculture, family and consumer sciences, 4-H youth, development and community resource development is essential. Assure authoritative action in development and delivery of programs. Salary will be commensurate with experience and professional qualifications. For complete description, contact: UC Division of Agricultural and Natural Resources Personnel, 6th Floor, Kaiser Center, 300 Lakeside Drive, Oakland, CA 94612. Telephone activities, 510-642-0088. Close: 17 June 1988. Refer to #A-88-061. Affirmative Action/Equal Opportunity Employer M/F/H.

ENVIRONMENTAL TOXICOLOGIST—Department of Biological Sciences at the University of North Texas (UNT) invites applications for a tenure-track assistant/associate professor position. A Ph.D. in biological sciences with a degree and an outstanding record of research and publica- tions is required. Successful candidates will be expected to develop a research program, grant supported research program, to participate in undergraduate and graduate teaching, to direct M.S. and Ph.D. students, and to direct the Aquatic Toxicology Laboratory. University of North Texas is a research university located in a vibrantly expanding Dallas–Fort Worth metropolitan area with over 700 regular faculty and over 22,000 students (over 40,000 total). Submit a vita, description of research interests and names of three references by 30 June 1988 to: Kenneth L. Dickson, Department of Biological Sciences, P.O. Box 13078, University of North Texas, Denton, TX 76203-3078. UNT is an Affirmative Action/Equal Opportunity Employer.

EVOLOUTIONARY 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 systematics towards the analysis of population genetics and sociobiological problems in higher vertebrates (especially birds and mammals). Both candidates should develop research programs that demonstrate 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 candidate for both positions will be expected to develop independent research programs and understand the zoo with whose staff whose interests include the genetics of wild and captive populations, population management, physiology, behavioral biology. Salary and rank levels will be commensurate with education and 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, curricu- lum vitae, description of research and career goals, and three letters of support from three of your most significant publications, and names and addresses of three professional references. Send applications to: Dr. Daniel D. Sibley, Director, National Zoological Park, Washington, DC 20008. The National Zoological Park is an Equal Opportunity Employer. Applications from qualified minority and female candidates are actively solicited.

DEAN OF FACULTY THE SCHOOL FOR FIELD STUDIES

The School for Field Studies (SFS) is the leading international program in experiential coursework and field research in conservation biology at field sites throughout the world. Annual student enrollment, 700+.

The Dean of Faculty is responsible for the academic program development and scientific research direction of the School. Dean will supervise four Centers (Kenya, Australia, Mexico, Caribbean), twelve faculty, thirty part-time faculty and support staff.

Requirements: Ph.D., preferably in conservation biology, resource management, or related discipline. Candidate must have significant experience in educational administration, field work (preferably overseas), and in teaching and research. Candidate or trainee must exhibit a commitment to nontraditional education and be ready for the challenge of directing a rapidly expanding educational program.

Salary: $50,000 to $60,000 plus benefits. Send curriculum vitae and letter of recommendation to: President’s Office, SFS, 376 Hale Street, Beverly, MA 01915. An Equal Opportunity Employer.

ELECTROCHEMISTS

Eastern manufacturer of battery systems and electrochemical gas sensing devices seeks B.S., M.S., or Ph.D. electrochemical, electroanalytical, or analytical degree with experience in battery design or testing with use of materials or-permanent resi- dence required. Submit résumé to: Box 82, SCIENCE.

UNIVERSITY OF CALIFORNIA BERKELEY

COLLEGE OF NATURAL RESOURCES

FACULTY AND AGRICULTURAL EXPERI- MENT STATION POSITION in the Division of Biological Control of the Department of Entomological Sciences. A tenure-track position as assistant professor of entomology and entomologist in the Experiment Station will be available 1 September 1988. This is a 9-month appointment with summer salary guaranteed to tenure. Qualifications must include a Ph.D. degree in entomology or a related field. Demonstrated skills in statistics and quantitative methods in data analysis in insect ecology and population dynamics are required. Research emphasi- ses is on the biological control of insects and other arthropods that are pests of agriculture in California, in such areas as host-parasitoid/prey/predator interactions; procurement and colonization of parasitoids and preda- tors; population biology of natural enemies; ecological and economic evaluation of natural enemies. Foreign exploration for exotic parasitoids and predators expected. This is an undergraduate course in biological control, graduate seminars, and guidance of graduate students. Applications should send full curriculum vitae, list of publications and manuscripts, official transcripts of all college-level work, the names of three persons as reference, and a statement of purpose by 15 July 1988, to: D. L. Dahlsten, Chair, Division of Biological Control, University of California Berkeley, CA 94720

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

GUEST RESEARCHER (EPIDEMIOLOGIST OR IMMUNOLOGIST/MICROBIOLOGIST). The National Dental Research Institute (NDRI) is seeking a regular or senior level applicant with research doctoral degrees (or completion of requirements) appropriate to the study (i) dental caries and periodontal disease, resource management, or (ii) the immunology and microbiology of periodontal disease. Relocation reimbursement plus a stipend of $26,500 will be provided for tenures ranging from 3 months (senior only) to 1 year, with possible extension. Equal Employment Opportunity and affirmative action employer. Dr. M. E. Cohen (i) or Dr. L. G. Simpson (ii), NDRI, Building 1-H, NTC, Great Lakes, IL 60088.

MICROBIOLOGIST-GENETICIST. The Biology Department, Missouri Southern State College, invites applications for a tenure-track position with teaching responsibilities to include microbiology, medical microbio- logy, pathologic microbiology, genetics, general biol- ogy, virology, and immunology. Ph.D. preferred with a strong commitment to undergraduate teaching and re- search. Cell and molecular emphasis is desirable. Application deadline is 15 June 1988. Send a letter of application, curriculum vitae, and three letters of reference to: Dr. R. A. Malzahn, Dean of Arts and Sciences, Missouri Southern State College, Joplin, MO 64801-1595.

Missouri Southern State College is an Equal Opportunity/ Affirmative Action Employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE (ARS) MOLECULAR BIOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

Appalachian Soil and Water Conservation Research Laboratory, Athens, Ohio, is seeking a molecular biologist to join a group investigating soil-root interactions. Model system involves use of root- colonizing Pseudomonas strain. Highly qualified and successful candidate will be responsible for development of recom- binant DNA molecules, especially derivatives carrying lacZT inserts, suitable for tracing genetically engineered microorganisms in soils. Ph.D. with knowledge in pro- caryotic molecular biology and experience in transposi- tion, plasmid construction, transformation, and cloning. Starting salary is $22,000-$28,000. Send letter of applica- tion and resume to: Dr. T. E. Staley at 304-252-6426. The University of Georgia is an Equal Opportunity Employer. Appointments begin as soon as possible. For further information, contact: Alice MacNanna, 301-344-8560 by 1 Au- gust 1988. Applications in response to the advertisement must be received by 1 September 1988. ARS is an Equal Opportunity Employer. Women and Minorities are Encouraged to Apply.
POSITIONS OPEN

MOLECULAR CELL BIOLGIST/IMMUNOLOGIST
THE UNIVERSITY OF CHICAGO
THE BEN MAY INSTITUTE AND
THE DEPARTMENT OF PATHOLOGY

The Ben May Institute and the Department of Pathology of the University of Chicago are seeking applicants for at least two junior faculty positions. We are committed to developing strong programs in the molecular aspects of the control of cell growth and differentiation. We are seeking outstanding individuals who are using the approaches of molecular biology or cell physiology to examine basic mechanisms of cell signaling events or regulation of gene expression. Existing related research programs in the Ben May Institute and the Department of Pathology include molecular and genetic aspects of receptor signalling mechanisms involving steroid hormone receptors, growth factor receptors, and T lymphocyte activation and regulation. Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Letters of application including curriculum vitae, bibliography, a brief statement indicating research interests, and the names of three references should be sent to: Dr. Frank P. Stoeck, Director, Ben May Institute, The University of Chicago, 5424 S. Maryland Avenue, Chicago, IL 60637.

MOLECULAR GENETICIST. Children's Hospital of Western Ontario, Child Health Research Institute. A full-time academic appointment, University of Western Ontario, Department of Pediatrics, Division of Medical Genetics. Requirements: Ph.D. in biological sciences, strong research interest in basic or applied human genetic disease. For Dr. J. H. Jung, Children's Hospital of Western Ontario, 800 Commissioners Road East, London, Ontario, N6C 2V5. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents of Canada. This is an Equal Opportunity Employer. Closing date for applications: 31 August 1988.

NEUROIMMUNOLOGY RESEARCH COORDINATOR. Individual with technical expertise is sought for the creation and production of monoclonal antibodies towards defined brain molecules and their use for neuroimmunologic research. Considerable independence and an opportunity for career advancement will be strongly encouraged and available to the right person. Competitive salary and excellent benefits. Please contact: Dr. Howard Fillit, Box 1070, The Mount Sinai School of Medicine, Fishberg Research Center for Neurobiology and Department of Geriatrics, One Gustave L. Levy Place, New York, NY 10029-6674. Telephone: 212-241-7557. An Equal Opportunity Employer.

NEUROViroLOGY POSITION at the postdoctoral fellow or research associate level is now available at Memorial Sloan-Kettering Cancer Center. NIH-funded studies deal with the viral pathogenesis of HIV infection of the nervous system and the AIDS Dementia Complex. The position requires a background in pathogenetic or molecular virology or cell biology. Salary is commensurate with previous training and experience. Please forward curriculum vitae and three references to Richard W. Price, M.D., Department of Neurology, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.

OPHTHALMOLOGIST to head Section of Molecular Biology and Genetic Eye Disease in the Department of Ophthalmology and Visual Science, Yale University School of Medicine. Training and record in clinical and molecular genetics. Will be expected to direct teaching and research programs in section. Send curriculum vitae and bibliography to: Chairman, Search Committee, Department of Ophthalmology and Visual Science, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510. Affirmative Action/Equal Opportunity Employer.

27 MAY 1988

Commonwealth of Australia
Bureau of Mineral Resources, Geology and Geophysics

SENIOR RESEARCH SCIENTIST OR PRINCIPAL RESEARCH SCIENTIST OR SENIOR PRINCIPAL RESEARCH SCIENTIST

The Bureau of Mineral Resources, Geology and Geophysics (BMR), Canberra, invites applications from suitably qualified women and men for the following position for a Research Scientist in the field of Regolith Development. Canberra, the Nation's Capital, is an easy two hour drive to the snowfields in the South or the coastal fringe to the East. Sydney is three and a half hours drive to the North-East. Comprehensive sporting and recreational facilities are available, and it has excellent public and private schools and tertiary institutions.

The Division of Petrology and Geochemistry is responsible for a new program designed to understand the distribution and the origin of the Australian Regolith through a co-ordinated approach comprising geomorphology, geochemistry, remote sensing, geophysics etc. The objective of this program is to determine the nature, composition and evolution of the regolith, and underlying or contained resources including mineral deposits and groundwater.

Duties:

The successful applicant will lead a small team to develop this program and will have a geological background and special interest or expertise in processes involved in regolith development. Specialist knowledge of one or more of the following areas: geomorphology, sedimentology, remote sensing or low-temperature geochemistry would be an advantage.

Qualifications:

Qualified for admission to a degree of Doctor of Philosophy or equivalent qualification, and appropriate research experience. Ph.D. or equivalent in geology, with extensive postgraduate experience, demonstrated research ability and a strong publication record.

The level of appointment will be determined by the successful applicant's qualifications and experience and will be in one of the following categories:

Senior Research Scientist
Principal Research Scientist
Senior Principal Research Scientist

Conditions of service in the Australian Public Service include four weeks recreation leave per year plus bonus, cumulative sick leave, long service leave, comprehensive superannuation scheme and costs of relocation to Canberra.

To be eligible for permanent appointment to the Australian Public Service, an applicant must hold Australian Citizenship. However, a successful applicant accepted for immigration, and intending to apply for Australian Citizenship, may be appointed to the Service on probation. Such an appointment would be confirmed when citizenship is granted. Fixed term temporary employment of up to five years may be negotiated for a successful applicant who is not eligible for permanent appointment to the Service.

Applications together with full personal and professional details and the names of at least three referees should be sent to: The Secretary, Department of Primary Industries and Energy, PO Box 858, CANBERRA, ACT 2601, AUSTRALIA. Ref: NPPG.

ATTENTION: Recruitment Officer.
SCIENTISTS

Genencor, Inc. is a dynamic and growing biotechnology company located in South San Francisco, California. We specialize in the research and development of enzymes and enzyme processes as well as the production of industrial enzymes. We are actively recruiting for two positions in our Development Department:

**BACTERIAL PHYSIOLOLOGIST:** Develop and evaluate microbial hosts for the large scale production of useful proteins. Conduct and optimize fermentations on both the laboratory and pilot plant scales. Requires Ph.D. or equivalent in microbiology or related field. Knowledge of genetics and genetic techniques is essential. Some knowledge of engineering principles is useful. Refer to Dept. MA.

**PROCESS BIOCHEMIST/PROTEIN CHEMIST:** Extract, purify and characterize enzymes from both bacterial and fungal broths. Working as part of a project team, this individual will develop and implement purification schemes for large scale recovery operations. Some travel is required. Requires Ph.D. in biochemistry or a related field and two years post-doctoral experience. Some pilot plant or production experience in industry is preferred. Strong interpersonal and communications skills are essential. Proven project management and supervisory skills are desirable. Refer to Dept. HMD.

We offer an outstanding compensation and benefits package combined with the opportunity to make a significant contribution to our dynamic organization. To apply, please send your resume to GENENCOR, Inc., 180 Kimball Way, South San Francisco, CA 94080. Attn: Human Resources. Please note appropriate Dept. Genencor is an equal opportunity employer.

DIRECTOR OF CONSERVATION

Our client, a N.Y. based international conservation organization, seeks a new Director and Chief Spokesperson possessing significant experience in conservation or international development. The successful candidate will have abilities in management, fund raising, long range planning and government and public relations. Please forward resume with salary history to:

**MONACO & ASSOCIATES**

3761 Indian Hill Road
Shrub Oak, NY 10588

Equal Opportunity Employer M/F/V/W

NATIONAL INSTITUTES OF HEALTH

PUBLIC HEALTH SERVICE

Staff Fellowship in Cell Biology—Experimental Morphology

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health (NIH), invites application for a Staff or Senior Staff Fellowship position to study the structure of peripheral nerve and brain, with particular reference to the blood-nerve and blood-brain barriers; as well as cell surface properties determining morphogenesis in the nervous system. The successful candidate should be competent in light microscopy and electron microscopy, with demonstrated experience in freeze-fracturing, rapid freezing and scanning techniques, as well as techniques of tritiated autoradiography, enzyme histochemistry, immunocytochemistry and possibly in situ hybridization.

Applications are invited from qualified individuals having a Ph.D., M.D., or both, with experience in cell biology and morphology of the nervous system. Salary range is $20,000 to $43,452 commensurate with qualifications. Interested candidates should submit a Curriculum Vitae and a statement of research interests, as well as three letters of recommendation, to Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, NIH, Bldg. 10, Rm. 6C-103, 9000 Rockville Pike, Bethesda, Maryland 20892.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER
Putting Technology To Work

Battelle, Pacific Northwest Laboratories performs research on energy technology development and waste management technology along with the environmental and biomedical impacts of these technologies. Join a multi-disciplinary team of internationally recognized scientists and engineers providing imaginative and practical solutions to complex technical challenges.

Manager, Chemical Process Development

Our Materials and Chemical Applications Department has an opening for the Manager of its Chemical Process Development Section. The section conducts challenging research for the Department of Energy, other government agencies, and industrial clients in areas such as remediation treatment for hazardous wastes and innovative thermochemical and catalytic technology. Position requirements include:

- Advanced degree in Chemical Engineering or Chemistry and proven management and development of R&D
- Minimum of ten years' experience in research or industrial chemical engineering, including separations and recovery processes, thermochemical conversion processes, biochemical processes, and process modeling.
- Technical leadership, planning, and research project development in new research areas dealing with broad aspects of physical and inorganic chemistry.

In addition to our unique research environment and the innovative scope of our projects, Battelle offers a comprehensive compensation package and a highly desirable location for recreational pursuits. Send resume, salary history, current salary requirements and references to: Loren P. Henderson, Battelle, Pacific Northwest Laboratories, P.O. Box 999, Dept. 038, Richland, WA 99352.

U.S. citizenship required. We are an equal opportunity employer M/F.

NATIONAL UNIVERSITY OF SINGAPORE
INSTITUTE OF MOLECULAR & CELL BIOLOGY

POSTDOCTORAL FELLOWS

Applications are invited for appointment as Postdoctoral Fellows in the Institute of Molecular and Cell Biology.

The Institute was recently established to undertake basic biomedical and biotechnological research. It will also provide training at pre- and post-doctoral levels. The Institute has three principal research areas related to Cell Regulation, Infectious and Genetic Diseases and Molecular and Cell Biology of Plants.

The Institute, which is adjacent to the University's biomedical complex and the National University Hospital, has 19 laboratory modules of 1,000 square feet each.

Successful candidates will be pursuing research in one of the following areas: Human Papilloma Virus, Molecular Immunology, Molecular Biology of Stress, Molecular Neurobiology (e.g. Gene expression in brain), Protein Engineering, Plant Molecular Biology as well as Biochemical and Cellular Basis of Cell Regulation.

Salary will be commensurate with experience; leave, medical and other benefits will be provided. Applicants should send their curriculum vitae and names and addresses of 3 referees to the:

Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 0511

Enquiries may also be sent through BITNET to:

PERSDEPT @ NUSVM

MOLECULAR BIOLOGIST
HYPERCHOLESTEROLEMIA

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of novel therapeutic agents for the treatment of cardiovascular disease. We currently have an exceptional opportunity available for an experienced research associate to join our Cellular Biology Department.

You will be responsible for conducting experiments in the area of cholesterol biosynthesis and transport with particular emphasis on gene regulation. Qualified candidates must have a B.S. (M.S. preferred) in Molecular Biology or Biochemistry and a minimum of 1 year related research experience. A working knowledge of protein and enzyme biochemistry, molecular biology or mammalian tissue culture is desirable. You will join a group of highly talented scientists engaged in an interdisciplinary approach to the study of hypercholesterolemia.

We can offer an excellent salary and comprehensive benefits package as well as the opportunity to pursue a stimulating and rewarding career. For confidential consideration please submit your resume to: The Squibb Institute for Medical Research, Human Resources Department 800, P.O. Box 4000, Princeton, New Jersey 08540.

SQUIBB
Where science comes to life.
PHARMACOLOGIST to serve as Chief of the Biological Pharmacology Branch, Pharmacology Divi-ision, U.S. Army Medical Research Institute of Defense, Aberdeen Proving Ground, Maryland. Responsible for supervising and managing fundamental research on mechanisms of action of pharmacological agents and the development of concepts of pharmacology and therapy. Qualified applicants must have established expertise in biochemical pharmacology as indicated through peer reviewed publi- cations. Demonstrated ability to efficiently and effectively manage and supervise research teams is highly desirable. Salary range $46,000 to $60,000 per annum. The successful candidate will likely have a Ph.D. degree in pharmacology or related field. This position is in the civil service job category pharmacology chemist GM-405-14/ GM-1320-14. U.S. Citizenship is required and the appli- cant must be able to obtain a security clearance. Send resumes by 1 July 1988 to: Commander, US Army Aberdeen Proving Ground, Attention: STEAP-PA-CR-D (Ms. Byraut), Aberdeen Proving Ground, MD 21005. Equal Opportunity Employer.

PHYSIOLOGY

Full-time, TENURE-TRACK POSITION available. Rank commensurate with experience. Responsibilities include restructuring and implementing the basic physiology course for dental students and developing a strong research program. Current research interests should be in the area of high voltage clamped intracellular recording. Applicants must be willing to interact with other basic clinically scientists at the School of Dental Medicine. An Equal Opportunity/Affirmative Action Employer.

Send curriculum vitae and references to: Dr. B. F. Hammond, Associate Dean of Academic Affairs, University of North Carolina School of Dentistry, 4001 Spruce Street, Philadelphia, PA 19104.

PLANT MOLECULAR BIOLOGIST/BIOCHEMIST

The United States Department of Agriculture, Agri- cultural Research Service, Cereal Crops Research Unit, Madison, Wisconsin is seeking a plant molecular bio- logist/biochemist to do research on gene expression and enzyme regulation in barley and oats as it relates to malting and nutritional quality. Candidates should have knowledge and experience in recombinant DNA procedures and plant biochemistry. Postdoctoral experience is desired. Must be U.S. citizen. Salary is commensurate with experience ($27,716 to $51,354). For information on research program or position contact: Dr. David M. Peterson, Acting Chief, Cereal Crops Research Unit, Madison, WI 53726. For information on the position and procedures and forms contact: Janie Carr on 301-344-4569. Applications in response to this adver- tisement must be postmarked by 30 June 1988. Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP: Available this year to study erythropoietin receptor and mechanism of action of erythropoietin and Friend virus on erythroid differentiation. Research will involve cell isolation, pro- tein purification, and molecular biology of initiation of gene transcription. This position offers a good chance to combine molecular biology with cell biology in the study of terminal differentiation. Send curriculum vitae and names of three references to: Dr. Sandra B. Krasnow, Vanderbilt University, Medical Center North, Room C-3101, Nashville, TN 37232. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP/RESEARCH ASSOCIATE position available 1 July 1988 in NIH- funded basal ganglia neuropharmacology project which will examine interactions among dopamine receptors and GABA/substance P metabolism. The successful applicant with M.D. and/or Ph.D. degree(s) will utilize techniques of regional brain radioautography and microdialysis, quan- titative autoradiography, radioimmunoassay and HPLC. Clinically qualified M.D.'s may also participate in the Movement Disorders Clinic. This consider- ably paid position requires an M.D. and three letters of recommendation to: James F. Bennett, Jr., Department of Neurology, Box 394 University of Virginia School of Medicine, Charlottes- ville, VA 22908.

POSTDOCTORAL ASSOCIATE

Two postdoctoral positions are available beginning 1 July 1988 for research involving mechanistic studies of dopamine receptors, neurochemical, and behavioral processes. Areas of research interest include the mechanisms of diisulfide bond formation during protein folding, catalysis of thiol/disulfide exchange, and regulation of enzyme activity by thiols/disulfides. Experience in expe- rimentation, peptide chemistry, protein purification, or metabolic control is required. Salary: $18,000 to $21,000 per year (plus fringe benefits). Excellent qualifications and curricu- lum vitae and three letters of recommendation to: Dr. H. F. Gilbert, Department of Biochemistry, Baylor College of Medicine, Houston, TX 77030. Baylor College of Medicine is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW Position available in the Department of Therapeutic Radiology at Vanderbilt Univer- sity School of Medicine. Position available as early as 1 June 1988 for a postdoctoral fellow interested in pursu- ing questions relevant to the autoimmune and paracrine control of growth proliferation and stromal invasion in ovarian, endometrial and other adenocarcinomas, as well as the effects these growth factors exert on tumor cell response to DNA-damaging agents such as x-rays and drugs used in cancer chemotherapy. Preference will be given to applicants with experience in protein chemistry, molecular biology, and computer/quantitative analysis of DNA culture. Applicants should submit a letter describing their research interests, along with a complete curriculum vitae and copies of three references to: Barry M. Kaczin, M.D., Ph.D., Department of Therapeutic Radiology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.

POSTDOCTORAL POSITION. Available September 1988, for collaborative studies of growth factor synthesis and function in hormone responsive and unre- sponsive prostate cancer cells. Molecular studies of hor- mone regulated growth factor gene expression and bio- chemical studies of growth factor function will be pur- sued with Dr. S. Swerdloff, NIH. Candidates must have strong background and laboratory experience in cell biology and/or molecular biology. Send curriculum vitae and the names and telephone numbers of three references by 31 July 1988, to: Personnel Director (847), South- west Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284. Equal Opportunity Employer M/F.

Massachusetts Institute of Technology/Department of Biology POSTDOCTORAL POSITION available im- mediately. Applicants will work with neurocounseling animals. Responsibilities include studies of memory and learning in the fruit fly, Drosophila melanogaster, and will be responsible for microbial genetic recombination and mismatch repair. Send curriculum vitae and names of three references to: Dr. D. Helen, Department of Biology, Massachusetts Institute of Technology, Cambridge, MA 02139.

POSTDOCTORAL POSITION available for study of the anatomy and physiology of cerebellar circuits involved in limb movement. Main emphasis of research is on single unit recording (recording) during movement and on WGA-HRP neuronal tracing. Researcher will col- laborate with Peter van Kan and Alan R. Gibson. Send résumé and description of research interests and skills to: Alan R. Gibson, Barrow Neurological Institute, 350 West Meadow Road, Phoenix, AZ 85016. Telephone: 602-3863732.

POSTDOCTORAL POSITION available to study cellular events underlying the development of neuronal polarity. Research concerns the determination of the axon and dendritic growth and branching by hippocam- pal neurons in culture, using time-lapse and computer- enhanced video microscopy, immunocytochemistry and electron microscopy, microsurgery and microinjection. Send curriculum vitae, description of research back- ground and interests, and names of three references to: Dr. Gary Banker, Department of Anatomy, Albany Medical College, Albany, NY 12208.

POSTDOCTORAL POSITION for challenging research in computer modeling of brain structures. Keen interest in brain structures will be available 1 July 1988 at the University of Kansas. Ph.D. in chemistry or closely related field is required. Strong background in structural biochemistry or protein crystallography as well as program- ming experience in a VAX/VMS environment required. Familiarity with computer graphics and molecular me- chanics/dynamics software desirable. Salary will range from $20,000 to $24,000, depending on qualifications and experience. Interested candidates should send résumé with three letters of recommendation by 15 June 1988 to: Dr. A. Vedani, Department of Chemistry, University of Kansas, Lawrence, KS 66045. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available July 1988 to study transferrin receptors in African trypano- somes. An interest in receptor-mediated processes and a background in protein purification or recombinant DNA techniques is desirable. Send curriculum vitae to: Dr. R. D. Bankston, Department of Neurology, Southern Methodist University, Dallas, TX 75277-

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to study synaptic plasticity or synaptic elimination at the neuromuscular junction. Techniques include repeat- ed in vivo observation with video microscopy, image processing and electron microscopy. Send curriculum vitae and names of three references to: Dr. Albert Herrera, Neurobiology Section, Biology Laboratory, University of Southern Califor- nia, Los Angeles, CA 90089-0371. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately for research in (i) purification and characterization of components of the human erythropoietin system, (ii) single cell/matrix contact in normal and wound-healing epidermis and (ii) control of expression of the differentiation marker, kerat- inocyte transglutaminase. Salary $18,000 to $22,000. Contact: Martin M. Thiele, Department of Medical Biochemistry and Genetics, Texas A&M University College Station, TX 77843. Telephone: 409-845-

0628. An Equal Opportunity Employer.

POSTDOCTORAL POSITION available for studies on the neural control of blood flow in the choroid of the eye. These studies will involve a combination of anatomical (immunohistochemistry, pathway tracing, LM, EM) and physiological techniques (laser-Doppler, neurophysiology) to identify the circuitry and transmit- ting control of the neural pathways in the choroid, deter- mine their precise role and clarify their importance for outer retinal health. An interest in vision or previous experience in one or more of the above techniques desirable. Salary based on experi- ence. Contact: A. Reiner, Department of Anatomy and Neurobiology, University of Tennessee, Mem- phis, TN 38163.

POSTDOCTORAL POSITION available to study cerebral events underlying the development of neuronal polarity. Research concerns the determination of the axon and dendritic growth and branching by hippocam- pal neurons in culture, using time-lapse and computer- enhanced video microscopy, immunocytochemistry and electron microscopy, microsurgery and microinjection. Send curriculum vitae, description of research back- ground and interests, and names of three references to: Dr. Gary Banker, Department of Anatomy, Albany Medical College, Albany, NY 12208.

POSTDOCTORAL POSITION available 1 July 1988 to study transferrin receptors in African trypano- somes. An interest in receptor-mediated processes and a background in protein purification or recombinant DNA techniques is desirable. Send curriculum vitae to: Dr. R. D. Bankston, Department of Neurology, Southern Methodist University, Dallas, TX 75277-

Equal Opportunity/Affirmative Action Employer.
GLAXO INSTITUTE FOR MOLECULAR BIOLOGY S.A.

The Geneva biotechnology research unit of a large UK pharmaceutical group has a vacancy in the department of Molecular Biology for a specialist in

animal-cell expression

to investigate gene regulation in animal cells.

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

Situated in the attractive city of Geneva, the Institute has a staff of over one hundred, grouped in small teams of specialists from several domains of modern biology. We are part of the Glaxo Group – one of the largest pharmaceutical companies in the world – which has an outstanding reputation for the quality of its research and products. The Institute offers an excellent salary and benefits package, as well as an interactive research environment.

The ideal candidate will have several years postdoctoral research experience and a proven track record in the field of animal cell expression. Experience with viral systems – retroviral in particular – would be an advantage.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three references to: Rita Gloor, Personnal Manager, GLAXO IMB SA, 46, route des Acacias, 1211 Geneva 24, Switzerland.

Atherosclerosis—Vascular Biology Research

The Upjohn Company, a leader in pharmaceutical research, is expanding its Atherosclerosis Research program and is seeking a scientist to initiate and carry out original research directed toward understanding the mechanisms of atherosclerosis. The successful candidate will join our Metabolic Diseases Research Unit and will interface with both physiologically and chemically oriented laboratories to investigate how specific chemical modulators of cell functions can be used to both elucidate the mechanism involved in the development of atherosclerosis and to treat the disease. The successful candidate will collaborate with our scientists working on the integration of the phenomena of vascular cell injury, cell proliferation and infiltration, lipoprotein metabolism, and lipid accumulation. Effective communication of results, both orally and in writing, is expected as well as publication of research data.

Candidates should have a Ph.D. degree in a medical science, preferably pharmacology, with a minimum of 2 years of relevant postdoctoral experience. Expertise in both biochemical and physiological approaches to studying blood vessel disease is required; expertise in studying cells in culture as well as lipid metabolism is desirable. Ability to extend in vitro findings to intact tissues or to in vivo models is also desirable.

Upjohn is located in Kalamazoo, in southwestern Michigan, midway between Chicago and Detroit, and offers varied cultural events, cosmopolitan shopping and entertainment, lakes and woodlands minutes away, abundant year-round sports and recreation. Upjohn offers a stimulating research environment, excellent salary, comprehensive benefits and career potential. For prompt, confidential consideration, please send your CV/resume, list of publications and names and addresses of references, to M. William Rex, Corporate Employment, The Upjohn Company, Kalamazoo, MI 49001. Please refer to advertisement number 22904-HA in your correspondence. We are an Equal Opportunity Employer M/F.

Our Commitment to Scientific Excellence Continues...
The Immuneology Program at the Memorial Sloan-Kettering Cancer Center is seeking applications from immunologists for several tenure-track faculty positions. The potential candidate should be using modern genetic, biochemical and molecular biological techniques to study problems in the areas of cell surface antigens and receptors on lymphocytes. The specific rank of appointment will be commensurate with the candidate's experience and achievements. This is an expanding program consisting of 16 faculty members with diverse interests in the areas of immunogenetics, cellular immunology and tumor immunology, who are committed to basic research and the training of graduate and postdoctoral students. Excellent start up funds and space available.

Please submit your curriculum vitae, a brief statement of present and future research goals and the names of three references to:

Dr. Osias Stutman
Chairman, Immunoology Program
Sloan-Kettering Institute
1275 York Avenue
New York, New York 10021

SK is committed to equal opportunity through affirmative action and, therefore, members of minority groups are encouraged to apply.

The University of British Columbia
HEAD, DEPARTMENT OF PLANT SCIENCE
Vancouver, B.C.

Applications and nominations are invited for the position of Head of the Department of Plant Science. The Department is a unit within the Faculty of Agricultural Sciences. It has a complement of full-time faculty, 16 part-time lecturers and adjunct professors, and 12 full-time staff. Undergraduate students number 80-100 and there are 45 graduate students enrolled in Masters and Ph.D. programs.

The Department offers undergraduate programs leading to the B.C.(Agr.) and to the B.L.A. (Landscape Architecture). Research and graduate programs are well established in several fields: agronomy, biotechnology, crop physiology, entomology, genetics, horticulture, plant pathology, range ecology, and weed science.

The Head will be expected to provide academic and administrative leadership for the full range of programs in the Department; to foster a stimulating and congenial academic environment; and to maintain effective working relationships with other academic units and with related research and professional groups.

The appointment as Head will be for a five-year term which may be renewed. The academic appointment is expected to be at the rank of Professor and is subject to final budgetary approval. Salary negotiable, depending on qualifications. The successful candidate will have a strong research program, a commitment to excellence in teaching and will have demonstrated evidence of leadership and administrative ability.

Applications must include a curriculum vitae and the names of at least three references.

Correspondence should be sent by August 31, 1988 to:
Dr. J.F. Richards, Dean,
Faculty of Agricultural Sciences
Room 248, 2557 Main Mall
Vancouver, B.C. V6T 2A2

The University of British Columbia offers equal opportunity for employment to qualified male and female candidates. In accordance with Canadian immigration requirements priority will be given to Canadian citizens and permanent residents of Canada.

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Staff Researcher

Syntex, an international leader in the pharmaceutical and health care industry, has an immediate opening for a Staff Researcher in our Institute of Pharmaceutical Sciences.

You will work independently, designing and executing experiments to develop and characterize liposomes for use as potential drug delivery systems. Other duties include supporting activities related to drug solubilization, formulation and bioavailability utilizing liposomes and assisting basic research related to liposome-cell interactions.

To qualify, you must have a PhD in Biochemistry, Pharmacetics, Pharmacology or Chemistry and up to six years' experience with liposome technology. Working knowledge of electron microscopy, particle sizing, contact angle measurements, fluorescence spectroscopy and chromatography is also required.

Syntex offers a competitive compensation and relocation package in campus-like surroundings. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. KH/5R, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.

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The Faculty of Medicine, University of Geneva, has an opening for a FULL PROFESSOR in its Department of Biochemistry.

This is a full time position. It involves the direction of a research programme at the international level in some aspect of academic or clinical biochemistry; 20 hours per year of lectures and seminars (in French); responsibility for 40 hours of practical classes; supervision of Diploma and Doctoral students.

Qualification required: PhD. or M.D.
Starting date: 1 October 1988, or by arrangement

Applications should be sent before 25/7 to the Secrétariat de la Faculté de Médecine, Centre Médical Universitaire, 1 rue Michel-Servet, 1211 Genève 4, Switzerland, from whom further particulars of the post can be obtained.
REQUEST FOR PREPROPOSALS
SUPPLEMENT TO THE UNITED STATES
ARMY MEDICAL RESEARCH AND
DEVELOPMENT COMMAND
BROAD AGENCY ANNOUNCEMENT

The U.S. Army has a special interest in preproposals for medical research directed toward defining the pathogenesis of and medical treatment for injuries sustained by exposure to VESICATING chemical warfare agents. Specific areas of interest include the following:

PATHOPHYSIOLOGY AND PHARMACOLOGY FOR MEDICAL COUNTERMEASURES STRATEGIES
- General organ systems - Route of entry and biodisposition of toxic agents as related to systemic toxicity.
- Skin effects - Toxicity, pathogenesis, and mechanisms of action; identification of the etiology of blister formation and protracted healing.
- Etiology, pathogenesis and mechanisms by which sulfur mustard initiates leukopenia and granulocyte depletion.
- Identification and validation of in vivo or in vitro systems to mold the actions of vesicant agents and pharmacological countermeasures.
- Respiratory effects - Pathophysiology, pathogenesis and sequelae of lesions; mechanisms of action and suitable pharmacological intervention.
- Ophthalmic effects - Toxicity, pathogenesis and mechanisms of photophobia and ocular damage.
- Pharmacokinetics, metabolism and pharmacodynamics of both exposure to vesicants and of candidate prophylactic and therapeutic compounds, alone and combined.

DRUG ASSESSMENT
- Development of models and criteria for the (pre-IND/IND) identification and evaluation of antivenom and antivenin compounds which are effective as systemic pretreatment or treatment drugs (both self-aid and medical care).
- Development of models and criteria for the identification and evaluation of topical barriers which are safe and effective in the prevention of vesicant injury to skin.

MEDICAL MANAGEMENT
- Development of effective diagnostic and prognostic procedures or measures for field use to assess the extent of patient injury to include rational criteria for triage.
- Development of cumulative and acute dosimetry technology for assessment of body burden.
- Identification and development of clinical medical procedures which decrease the burden of patient care and achieve more rapid healing.
- Definition and resolution of clinical critical care issues such as treatment regimens, relief of pain and itching, wound care and respiratory support.

Threat agents of interest include sulfur mustard, lewisite, and phosgene oxime (Note that nitrogen mustard is not considered a military threat).
The goal of this research for the U.S. Army Medical Chemical Defense Program is to identify promising self aid, medical countermeasures and procedures which preserve the capabilities of the armed forces of the United States. The United States Army Medical Research and Development Command supports extramural research by competitive award of contracts. Those interested in competing for research funding under this supplement can obtain a brochure on the application process by writing to the following address:

Commander
United States Army Medical Research and Development Command
ATTN: SGRD-ACQ (BAA)
Fort Detrick
Frederick, Maryland 21702-5012

This supplement implies no commitment on the part of USAMRDC to support in whole or in part any proposal submitted in response to the contents herein.

GIBCO/BRL...
A Leader in Biotechnology
Applications to Research and Industry — currently is seeking candidates for openings in these areas:

Molecular Biology
Biochemistry
Enzymology
DNA Diagnostics

As a division of Life Technologies, Inc., GIBCO and BRL are recognized as leading brands in the field of cell and molecular biology research products...and our success in the marketplace has resulted in a number of new professional positions.

They include:

Group Leader/Instructors for Workshops, Seminars and Training Programs
- Ph.D. in Molecular Biology: excellent written, verbal and communications skills

Scientists/Senior Scientists
- Ph.D. in Biochemistry/Molecular Biology/Molecular Virology and 2-4 years post-doctoral training with enzyme system experience
- Ph.D. in Microbial Genetics or Physiology and 4 years post-graduate experience
- Ph.D. in Molecular Biology and 2-3 years experience in diagnostic product development
- Ph.D. with 2 years post-doctoral experience in molecular biology and immunochemistry

Biochemists/Lab Technicians
- B.S. or B.S. in Biochemistry, Biology, Chemistry or the Health Sciences; M.S. in some positions helpful and some experience in molecular biology.

Will carry out development work, planning and experiments in laboratories to support present and new products.

Please send resume or C.V. to:
Richard L. Hotaling, Jr., Personnel Manager
Dept. B1
GIBCO/BRL, Life Technologies, Inc.
8717 Grovemont Circle, Gaithersburg, MD 20877
(A suburb of Washington, D.C.)

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

GIBCO
BRL
POSTDOCTORAL OPEN

POSTDOCTORAL OPEN available immediately for NIH-funded studies of heimith parasite antigens in human filariasis. Work involves antigen analysis and assay development/evaluation. Successful candidate will have recent Ph.D./M.D. with strong biochemical/immunological experience. Experience in parasitology and hybridoma methodology preferred but not essential. Please send curriculum vitae and three references to: Professor Keith W. Miller, Department of Anesthesiology, Harvard Medical School, Massachusetts General Hospital, Boston, MA 02114. Telephone: 617-726-8985. Equal Opportunity Employer.

THE CENTER FOR BLOOD RESEARCH HARVARD MEDICAL SCHOOL HEMATOLOGY--BIOCHEMISTRY RESEARCH

POSTDOCTORAL POSITION available to study intracellular proteolysis in erythrophagocytic cells of b-thalassemia individuals. Candidate must have recent M.D. or Ph.D. Diligence and honesty essential, experience in protein biochemistry preferred, independent and creative encouraged. Send curriculum vitae, statement of background and goals, and names of three references to: Dr. Joseph R. Shaffer, The Center for Blood Research, 800 Huntington Avenue, Boston, MA 02115. Equal Opportunity Employer.

POSTDOCTORAL POSITION--FISH PHYSIOLOGY involving fish physiology research available for 1 year, starting 1 May 1988 to study the effects of chronic stress on the morphology of the heart, the hypothalamic-pituitary system, and the central nervous system. A M.S. or Ph.D. in biology is required. Experience in water quality control and handling fish is necessary. Send curriculum vitae and three letters of recommendation to: Dr. D. A. Dobson, Department of Zoology, University of South Dakota, Vermillion, SD 57069.

POSTDOCTORAL POSITION in MEMBRANE BIOPHYSICS at Harvard Medical School. Several positions are available immediately to study molecular mechanisms involved in blood-cell--endothelial cell, blood-cell--parasite, and lymphocyte--target cell interactions. Will apply novel biophysical and biochemical techniques to studies of dynamic phenomena mediating membrane-membrane interactions, including lateral mobility, rotational mobility, and distribution of proteins and lipids on the surface of individual cells. Send curriculum vitae, statement of research interests, and names of three references to: Dr. Richard M. Lerner, Department of Biochemistry and Molecular Pharmacology, Harvard Medical School, 250 Longwood Avenue, Boston, MA 02115.

POSTDOCTORAL POSITION MICROBIAL GENETICS Available immediately to study conjugal DNA transfer of broad-host-range plasmids. Send curriculum vitae and names of references to: Dr. Richard Meyer, Department of Microbiology, K326, University of Texas, Austin, TX 78712-1095.

The Center for Hemostasis and Thrombosis Research, New England Medical Center and Tufts University Schools of Medicine, invites applications for POSTDOCTORAL POSITIONS in the area of molecular biology, cell biology, protein biochemistry and immunology--related to blood coagulation and of vascular biology.

Faculty interests include:

B. C. Furie--Structure-function relationships of the vitamin K-dependent blood coagulation proteins studied and tissue-specific mutagenesis and expression of recombinant proteins.

B. Furie--Posttranslational processing of the vitamin K-dependent proteins, plasminogens.

D. D. Wagner--Endothelial cell biology; processing and expression of adhesion glycoproteins and their receptors.

D. L. Disugd--Structure-function relationships of mutant blood-clotting proteins to determine the molecular basis of hemophilia.

The Center is located in new laboratories and is well equipped with instrumentation for protein sequencing, peptide and DNA synthesis and molecular modeling. Please reply to: Ms. Colleen Matan, Box 832, Tufts-New England Medical Center, 750 Washington Street, Boston, MA 02111.

POSTDOCTORAL POSITIONS IN BIOTECHNOLOGY: An interdisciplinary program for developing biotechnology candidates has been established at University of California, Los Angeles (UCLA). The participating departments are chemical engineering, biology, and biochemistry.

Individuals with doctoral degrees in the areas of bioorganic, bioinorganic, biochemistry, electrochemistry, cell biology, and biochemical engineering are being sought. Interested persons should be preparing to do research along, with the names of three professional references to: Professor William L. Volkin, Chemical Engineering Department, 405 Hilgard, Los Angeles, CA 90024--1592, UCLA. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS

The University of Oklahoma Health Sciences Center campus is currently recruiting postdoctoral research fellows. These Research Fellow positions will involve experiments on the metabolism of lymphocytes and hybridomas.

The University of Oklahoma Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS in MOLECULAR NEUROBIOLOGY available immediately for developing invertebrate and vertebrate systems to study effects of xenobiotics on immune function. Experience will go to applicants with background in immunology or toxicology and interest in invertebrate physiology. Send curriculum vitae and three letters of recommendation to: Dr. J. A. Gershon, Tufts Medical School, Joint Program in Cell and Developmental Biology, Boston, MA 02111.

The University of Oklahoma Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION open immediately for study of immunoglobulin degradation and processing. Send curriculum vitae and a letter of recommendation to: Dr. Robert J. M. Wood, Department of Biochemistry and Molecular Pharmacology, Harvard Medical School, 179 Longwood Avenue, Boston, MA 02115.

POSTDOCTORAL POSITION available immediately for study of tumor suppressor genes and oncogenes in normal and cancer cells. Several postdoctoral positions are currently available. Interested candidates should contact: Dr. Susan L. Naylor, Department of Pathology, Harvard Medical School, 100 Longwood Avenue, Boston, MA 02115. Limited travel available.

Two postdoctoral positions are available immediately in the biotechnology field. One position involves studies of oxygen-induced alterations in endothelial cell membrane structure and function. Positions are for 1 year beginning 1 July 1988, and involve isolation of plasma membrane lipids, preparation of liposomes, and measurement of transmembrane transport and membrane biological activities. Background in membrane biology and techniques required. Send curriculum vitae and names and telephone numbers of three references to: Dr. J. C. DeBault, Department of Biology, University of South Carolina, Columbia, SC 29208. Equal Opportunity/Affirmative Action Employer.

Two postdoctoral positions are available to study the control of neurotransmitter release. Experience in basic neurochemistry, pharmacological techniques, or biochemistry is required. Send curriculum vitae and three letters of recommendation to: Dr. Alan L. de Blas, Department of Neurobiology, Stanford University, Stanford, CA 94305. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION in the area of molecular biology, cell biology, protein biochemistry and immunology--related to blood coagulation and of vascular biology.

Faculty interests include:

B. C. Furie--Structure-function relationships of the vitamin K-dependent blood coagulation proteins studied and tissue-specific mutagenesis and expression of recombinant proteins.

B. Furie--Posttranslational processing of the vitamin K-dependent proteins, plasminogens.

D. D. Wagner--Endothelial cell biology; processing and expression of adhesion glycoproteins and their receptors.

D. L. Disugd--Structure-function relationships of mutant blood-clotting proteins to determine the molecular basis of hemophilia.

The Center is located in new laboratories and is well equipped with instrumentation for protein sequencing, peptide and DNA synthesis and molecular modeling. Please reply to: Ms. Colleen Matan, Box 832, Tufts-New England Medical Center, 750 Washington Street, Boston, MA 02111.

POSTDOCTORAL POSITIONS IN BIOTECHNOLOGY: An interdisciplinary program for developing biotechnology candidates has been established at University of California, Los Angeles (UCLA). The participating departments are chemical engineering, biology, and biochemistry.

Individuals with doctoral degrees in the areas of bioorganic, bioinorganic, biochemistry, electrochemistry, cell biology, and biochemical engineering are being sought. Interested persons should be preparing to do research along, with the names of three professional references to: Professor William L. Volkin, Chemical Engineering Department, 405 Hilgard, Los Angeles, CA 90024--1592, UCLA. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATES

Two postdoctoral positions are available immediately for study of insect brain chemistry. One position involves studies of the GABA/benzodiazepine receptor with monoclonal antibodies and recombinant DNA techniques; and a second position to study endogenous modulators of the GABA/benzodiazepine receptor. A background in molecular biology and/or biochemistry is desirable. Please send curriculum vitae and three letters of recommendation to: Dr. Angel L. de Blas, Department of Neurobiology, Stanford University, Stanford, CA 94305. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

Position available 1 September 1988 for individual with a Ph.D. in biochemistry. Project concerns intracellular calcium regulation in neurons and includes a biochemical examination of calcium-binding properties of neuronal membrane components. Applicants with experience in protein isolation techniques preferred. Send curriculum vitae and names of three references to: Dr. Ron Abercrombie, Department of Physiology, Emory University, Atlanta, GA 30322. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

USDA--ARS, Kearneyville, West Virginia. A position is available immediately to participate in a multidisciplinary research effort (molecular biology, tissue culture, and plant breeding) to improve peach fruit quality. Project involves isolation and characterization of specific genes controlling specific traits. The position involves characterization of sequences that control expression of specific genes, and bioinformatic analysis of the data. Knowledge of molecular biology and plant molecular biology is required. Experience in sequencing, cloning, and expression in higher organisms is desirable. Send curriculum vitae and names of three references to: Dr. Ann Callahan, USDA--ARS, Appalachia Fruit Research Station, Route 2, Box 45, Kearneyville, WV 25430. Telephone: 304-724-3451.
As a Vienna-based pharmaceutical research center, we represent an important element in the international drug-discovery effort of the SANDOZ group.

The main focus of our activities is preclinical research in:

**IMMUNOSTIMULATION**  (cytokines and synthetic compounds)
**MONOCLONAL ANTIBODIES**  (especially for use in the treatment of tumours)
**DERMATOLOGICAL PHARMACOLOGY**
**ANTI-RETROVIRAL THERAPY**

To initiate and supervise new research projects in these fields we are seeking Ph. D. level

**IMMUNOLOGISTS**
(with a background in cell biology)
**DERMATOLOGISTS**
(with a background in cell biology, biochemistry or pharmacology)
**VIROLOGISTS**
(with a background in molecular genetics or biochemistry)
**GENE TECHNOLOGISTS**

There are several openings on each of these disciplines. For some of the positions a solid medical background (MD) would be advantageous. In addition, we also have a number of vacant positions for Ph. D. level

**ORGANIC CHEMISTS**

The challenging nature of the scientific tasks calls for researchers with an above-average level of professional expertise. The flexibility of our organisation enables us to employ scientists presently holding positions at different levels of responsibility.

At present, Sandoz Research Institute has some 150 permanent scientific staff that are supplemented by graduate students, post-docs and visiting scientists. Another 90 persons are providing the necessary scientific, administrative and technical support. Provisions have been made for an increasing number of interactions with university groups occupying laboratories at the Sandoz Research Institute site. The institute provides an excellent physical infrastructure including biohazard containment units and generous large animal quarters.

Vienna is a cosmopolitan city offering a fascinating range of cultural events and institutions as well as extensive opportunities for sports and leisure time activities. In terms of science, the city is attracting an increasing number of international enterprises involved in molecular genetics and biotechnology.

This development has led to an expansion of these disciplines at Vienna’s universities. A number of the researchers of the SANDOZ Research Institute hold lecture posts at these local universities while others lecture abroad.

Opportunities for a fruitful, intellectually stimulating dialogue are further enhanced by close co-operation with several SANDOZ research units and other leading scientific centers.

If you find our offer attractive and have the necessary qualifications, please submit a written application and CV directly to Dr. Peter Dukor, Managing Director and Head of Research at SANDOZ Forschungsinstitut, Brunner Strasse 59, A - 1235 Vienna, Austria.

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**SANDOZ**
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27 MAY 1988
Gastrointestinal Diseases Research

The Procter & Gamble Company in Cincinnati, Ohio, is seeking an entry-level Ph.D. physiologist or microbiologist to study the host-parasite interaction for gastrointestinal (GI) infectious diseases. The individual will work in a GI research group interested in understanding the mechanisms of bacterial pathogenesis. Preference will be given to individuals familiar with in vitro and in vivo models to study mucus production. Good communication skills and the desire to work in an interdisciplinary environment are also important requirements. Postdoctoral experience is desirable but not required. Applicants must be U.S. citizens or permanent residents. Send resume and publication list to:

Dr. T.J. Logan, Manager
Ph.D. Recruiting
GI Disease Research Position, Box S
THE PROCTOR & GAMBLE COMPANY
Miami Valley Laboratories
P.O. Box 398707
Cincinnati, Ohio 45239-8707

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Ph.D. BIOCHEMISTS MOLECULAR BIOLOGISTS

Bristol-Myers' Wallingford, Connecticut world headquarters for Pharmaceutical Research and Development is a state-of-the-art multi-million dollar setting. Our Department of Cardiovascular Research is seeking highly qualified Biochemists and Molecular Biologists at the Ph.D. level to become part of the drug discovery research team in the atherosclerosis and thrombosis areas. Opportunities for professional and personal growth are exceptional.

Atherosclerosis

Ph.D. in Biochemistry, Molecular Biology or related area. Training in LDL receptors, growth factors, VLDL assembly, or apolipoprotein synthesis. Industrial experience helpful but not necessary.

Thrombosis

Ph.D. in Biochemistry, Pathology, Molecular Biology or related area. Experience in coagulation is desirable. Industrial experience helpful but not necessary.

Successful candidates will receive a highly competitive salary, outstanding benefits, and the opportunity to make an important contribution to a company that's committed to the future. To apply, please send your resume to: BRISTOL-MYERS COMPANY, Pharmaceutical Research & Development Division, Attn: HR 8, P.O. Box 5100, 5 Research Parkway, Wallingford, CT 06492.

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Gastrointestinal Research

The Procter & Gamble Company in Cincinnati, Ohio, is seeking an entry-level Ph.D. physiologist, physical pharmacist, chemist, or chemical engineer to work on drug delivery to the GI tract. The individual will work in a GI research group with interest in drug/polymer interactions with mucosal surfaces. Preference will be given to those familiar with gastrointestinal physiology models. Good communication skills and the desire to work in an interdisciplinary environment are also important requirements. Postdoctoral experience desirable but not required. Applicants must be U.S. citizens or permanent residents. Send resume and publication list to:

Dr. T.J. Logan, Manager
Ph.D. Recruiting
GI Research Position, Box S
THE PROCTOR & GAMBLE COMPANY
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P.O. Box 398707
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Director, Hancock Institute of Marine Studies

University of Southern California

Applications are invited for the position of Director of the new Hancock Institute of Marine Studies (HIMS) at the University of Southern California. The HIMS consolidates previously separate organizations of USC to focus efforts in marine research. The Director will serve as the representative of the University's Marine Programs and be responsible for research conducted in the Institute, University-wide marine projects, the Sea Grant program, and coordination of research programs housed in several departments. The HIMS Director will oversee the management of ship operations, the Catalina Marine Science Center and other marine facilities. The successful candidate must have an outstanding international reputation as a scientist and a proven record as an administrator. The candidate will be expected to provide imaginative leadership for current and future programs and promote the national and international stature of the Institute. The Director should have a successful record of research and teaching and qualification for appointment as a tenured faculty member in an appropriate department. Applications will be reviewed beginning Jan. 1, 1988, and thereafter until the position is filled. Qualified persons should send a statement of interest and previous experience, curriculum vitae, and list of references to Dr. Robert Friedheim, Chair, HIMS Search Committee, University of Southern California, Los Angeles, 90089-0341. Candidates are encouraged to apply regardless of gender or ethnic origin. The University of Southern California is an equal-opportunity/affirmative-action employer.
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**Staff and Post-Doctoral**

MERCK SHARP & DOHME Research Laboratories, the world leader in pharmaceutical research, has several positions available at regular Staff and Post-Doctoral levels within the Department of Pharmacology.

**M.D. or Ph.D.**

The selected candidate will conduct a broad range of experiments within our ongoing antithrombotic, anticoagulant and thrombolytic programs. Substantial experience with in vivo models of thrombosis and studies of cell culture proteins are required.

**Post-Doctoral Fellowships**

**Position – 1**

**Ph.D. In Biochemistry/ Biochemical Pharmacology**

The selected candidate will conduct research on the structure and function of proteins containing beta-hydroxyl aspartyl/asparaginyl residues and the characterization of the enzyme systems responsible for the hydroxylations. Experience in protein chemistry, protein purification, and protein biochemistry is preferred.

**Position – 2**

**Ph.D. Biochemistry/ Cell Biology**

The selected candidate will conduct research on proteins containing beta-hydroxyl aspartyl/asparaginyl residues. Specifically, this individual would study both the regulation of the synthesis and processing of the proteins as well as the regulation of the extent of hydroxylation of the proteins in several cell culture systems (endothelial, hepatoma, recombinant). Tissue/cell culture experience is preferred.

Excellent salary and benefit programs accompany these positions at our modern research facilities located 25 miles northwest of Philadelphia.

Please send resume with salary requirements to:

Manager, Research
Personnel W42-2
Merck Sharp & Dohme
Research Laboratories
West Point, PA 19486
EEOAA/WH/Equal Opportunity Employer

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**SENIOR SCIENTIST**

Hoffmann-La Roche is an established leader in the pharmaceutical and health care industry, with a strong commitment to biotechnology. The Department of Molecular Genetics provides a stimulating and highly collaborative environment for basic and applied research on prokaryotic and eukaryotic gene expression, cytokines, growth factors and their receptors, oncogenes and other areas with relevance to human pharmaceuticals.

We are seeking a Senior Scientist to be responsible for an exploratory research program specializing in, but not limited to, structure and function studies of cell surface receptors of eukaryotic cells. We are especially interested in a Scientist who has experience in the biochemical characterization of cell surface receptors, and is able to apply hybridoma technology, analytical protein characterization and cell biology techniques in support of our long term goal of identifying and characterizing receptors which have relevance to human pharmaceuticals. Qualifications include a PhD in Cell Biology, Biochemistry, Pharmacology or a related discipline, and a minimum of 2 years of postdoctoral training. Experience in characterization of cell surface receptors or related proteins and hybridoma technology would be preferred.

We are conveniently located in a suburban setting 10 miles from New York City. We offer a very competitive compensation package, and a research environment that encourages scientific growth and publication. For consideration, please send your curriculum vitae and a letter indicating past, current and future research interests, to: Ms. Eileen M. Malone, Department R.C., Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.

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**NATIONAL UNIVERSITY OF SINGAPORE**

**DEPARTMENT OF ORTHOPAEDIC SURGERY**

**RESEARCH FELLOW**

Applications are invited for appointment as Research Fellow in the Department of Orthopaedic Surgery. Candidates should possess a PhD degree in Biochemistry and preferably have some research experience in biochemistry of soft tissues, cartilage and bone, quantitative morphometry and immunohistochemical work.

The successful candidate will be required to assist in the running of the biochemistry laboratory in the Department. The appointment may be for up to three years at a time.

Gross monthly emoluments will range from $2979 to $4779. (US$1 = $2.00 approx.) The commencing salary is dependent upon the qualifications and experience of the appointee.

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of $1,000 or $2,000, subsidised housing at nominal rentals ranging from $500 to $216 p.m., education allowance for up to three children subject to a maximum of $10,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore.

Candidates should write to the Director, Personnel Department, National University of Singapore, 10 Kent Ridge Crescent, Singapore 0511, giving their curriculum vitae and the names and addresses of three referees who can comment on their research ability and/or professional competence.
POSTDOCTORAL RESEARCH ASSOCIATE positions available in application of techniques of molecular endocrinology to problems related to the biochemistry of reproduction. Current project areas include receptor purification and characterization, synthesis of peptides having biological properties, isolation of naturally occurring gonadal paracrine factors, structure-function studies on glycoprotein hormones, and studies on signal transduction and mechanism of hormone action using cultured cell systems as well as in vivo models. Salaries are negotiable and depend on qualifications and experience. Send curriculum vitae and names of three references to: Dr. Leo E. Reichert, Jr., Department of Biochemistry, Albany Medical College, Albany, NY 12208.


POSTDOCTORAL RESEARCH FELLOWS

Two positions available 1 July 1988. One for the characterization of lymphoid protein subsets associated with malignancy, and the other for the detection of mutations in lymphoid cell results from exposure to radiation or chemotherapeutic agents. The University of Michigan is an Equal Opportunity/Affirmative Action Employer. Send curriculum vitae to: Dr. Sam M. Hanash, University of Michigan Medical School, Department of Pediatrics, R4451 Kresge I, Box 0510, Ann Arbor, MI 48109-0510.

NATIONAL INSTITUTES OF HEALTH
MOLECULAR BIOLOGY/TRANSGENIC MICE/ENDOCRINE DISEASES

POSTDOCTORAL RESEARCH POSITION for M.D., Ph.D., D.D.S., or equivalent, with training in recombinant DNA technology and construction of vectors to work on transgenic mice and endocrine diseases. Candidates with 1 or 2 years of experience preferred. The initial appointment will be for 2 years, with renewals on a yearly basis. Starting salary range, depending on experience, is $20,000 to $46,000 per year. Must be U.S. citizen. The position is available immediately. Send curriculum vitae and names of three references to: Dr. Lois Saltzman, Assistant Scientific Director, National Institute of Dental Research, National Institutes of Health, Building 30, Room 131, Bethesda, MD 20892.

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POSTDOCTORAL IN PLANT BIOLOGY

Two positions available to study genes/proteins involved in the ubiquitin-dependent proteolytic pathway of higher plants, including Arabidopsis. Experience in molecular techniques and enzymology preferred, prior work in plants unnecessary. Send resume and names of three references to: Dr. Richard Vierstra, Department of Horticulture and Cellular/Molecular Biology Program, University of Wisconsin, Madison, WI 53706. Telephone: 608-262-8215.

THE UNIVERSITY OF CHICAGO
PROTEIN BIOCHEMIST

Excellent opportunity to work at The University of Chicago's newly created Protein Biochemistry Core Facility. M.S. in chemistry or biochemistry (B.S. will be considered. Preference 1 to 2 years of protein chemistry and peptide synthesis. Salary $27,500 to $30,000 commensurate with skills plus fringe benefits. Responsibilities will include protein sequencing, using spinning cup and gas phase protein sequencer, peptide synthesis and amino acid analyses. Director of facility will provide some direction and with facility and independent personal advancement. Please send curriculum vitae and three letters of recommendation to:

Stephen C. Meredith
Department of Pathology
The University of Chicago
5841 South Maryland Avenue
Chicago, IL 60637

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ANIMAL SCIENCE RESEARCH

SCIENTIST

Hoffmann-La Roche is a world-renowned company recognized for its strong commitment to research in animal agriculture, with ongoing investigations and discoveries of new methods for altering and improving animal growth performance. Due to this commitment, we're seeking an individual to join our Animal Science Research Department to conduct research to characterize the effects of growth factors/analogs by bioassay. To qualify, you'll need an MS in Biochemistry, Physiology or a related discipline; demonstrated proficiency in cell culture techniques; and 3-4 years of experience in bioassay development (e.g. radio-immunoassay, receptor binding assay, automated assay procedures).

You'll enjoy the professional environment and challenges Roche offers, while receiving a highly competitive compensation package. For confidential consideration, please send your resume, indicating salary history and requirements, to: Frances Newman, Department T.M., Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.
Baxter Healthcare Corporation's record of excellence encompasses over 30 years of commitment to technology, innovation and quality. Currently, our Hyland Division is seeking similarly-committed individuals to join its staff as Research Scientist and Sr. Research Associate.

**RESEARCH SCIENTIST**

This individual will participate in pilot-scale production and scale-up process of stroma-free modified hemoglobin for therapeutic application; set up and operate the closed/aseptic chemical reactor for modification of hemoglobin; and take part in development and application of analytical methods concerning the project. The selected candidate must be able to supervise 1-2 technical personnel and assist the group manager in preparing technical documents. Requirements include an M.S. in Chemistry/Biochemistry, with 5 years of relevant industrial experience or Ph.D. in Chemistry/Biochemistry with 2 years of experience. Experience in blood component R&D and Production, along with theoretical and practical knowledge of hemoproteins in general and hemoglobin in particular is helpful. Any experience with immunoassay methods and toxicity analysis techniques is preferred.

**SR. RESEARCH ASSOCIATE**

The person selected for this position will set up and operate a set of aseptic/closed process vessels and filtration/ultrafiltration systems and prepare pilot-scale amounts of stroma-free, modified human hemoglobin each month as a function of scale-up process. He/she will also be responsible for maintaining the sterility of this system and improvement of its overall efficiency and further development.

The selected individual will be required to supervise 4 technical workers including assigning tasks, inspection and control, solving routine problems by modification of equipment and methodology. A B.S. in Chemical Engineering, Chemistry, or Biology plus 5 years of relevant industrial experience or M.S. in Chemical Engineering, Chemistry, or Biology and 3 years of experience is mandatory. Background in preparation of blood products and GMP is desirable.

Baxter offers the selected candidates a friendly, stable work environment with room to grow both personally and professionally, as well as attractive benefits and compensation plans. For immediate consideration, please send a resume with salary history to: Baxter Hyland Division, Ms. Vickie Thrasher, 4501 W. Colorado Blvd., Los Angeles, CA 90039. PRINCIPALS ONLY, PLEASE. Equal Opportunity Employer.

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**Biochemical Geneticist**

Senior Research Scientist/Principal Research Scientist

**FIELD:** Fisheries Research/Population genetics

**THE DIVISION:** The Divisions of Fisheries Research and Oceanography collectively form the CSIRO Marine Laboratories, which is Australia's principal marine research institution. The Division of Fisheries Research undertakes studies into the biology, ecology and population dynamics of marine populations (both plant and animal) and supplies information for the development of management strategies for fisheries within the Australian Fishing Zone. The Division currently employs about 140 staff of whom 80 are professional research staff with its main laboratory in Hobart and smaller laboratories in Perth and Brisbane. The Division charters a 53m research vessel which is due for replacement in 1989.

**THE WORK:** The Fisheries Resources programs of the Division are carried out around the continent (south and south-east from Hobart, north and north-east from Brisbane, west and north-west from Perth). Current subprograms include studies on fish taxonomy, reproductive biology, ecology, population dynamics, exploratory fishing, stock assessment and environmental protection. Fisheries under investigation include the south-east trawl (with special reference to the orange roughy scallop), northern multi-species demersal fisheries, northern pelagic fisheries and the southern bluefin tuna. It is expected that the Division will be carrying out exploratory and developmental work on the fisheries of the western and north-western deep water.

**THE JOB:** The appointee will plan and carry out research on the population genetics of Australia's commercially exploitable fisheries resources. Arrangements for support staff will be finalized after discussions with the successful applicant. The research will aim at complementing that of other research groups within the Division, and would be expected to provide input into programs examining problems of species identification, stock delimitation, stock recruitment, relationships and growth. The appointee would also be expected to liaise with other groups and organisations responsible for fisheries research and management; and to prepare collaborative grant proposals aimed at solving fisheries problems which relate to this field of expertise.

**THE PERSON:** Applicants should hold a PhD or equivalent qualifications in genetics with at least six years postdoctoral research experience in population genetics including at least five years in fisheries or wildlife research together with demonstrable thorough publication/research ability. Suitably qualified applicants of outstanding calibre but with less relevant experience could be considered for appointment at a lower level.

**LOCATION:** The appointee will be located at the Marine Laboratories in Hobart.

**CONDITIONS:** Appointment will be for a term of three years with the possibility of conversion to an indefinite appointment. Australian Government superannuation benefits are available.

**MORE INFORMATION:** Prospective applicants are invited to telephone Dr P.C. Young (02) 20 6222 for further information. A copy of the detailed job description and selection criteria can be obtained from Mr L. St George on (02) 20 6222.

**APPLICATIONS:** Applications should be submitted by 17 June 1988 and quote reference number FC88/2. They should be framed against the selection criteria and should state relevant personal particulars including details of qualifications and experience. Applicants should nominate at least two professional referees, and address their applications to:

The Chief
CSIRO Division of Fisheries Research
GPO Box 1538
Hobart, Tasmania. 7001 (Australia)

CSIRO is an equal opportunity employer.
CHAIRMAN
BIOCHEMISTRY/MOLECULAR BIOLOGY

The University of Miami School of Medicine is seeking applications and nominations for the position of Professor and Chairman of the Department of Biochemistry and Molecular Biology. The person filling this position will have the unique opportunity to lead a well recognized and already established department and to greatly expand the department's capabilities in the area of molecular biology. Funds for the development of the department are available through a generous award from the Lucille P. Markey Charitable Trust. In addition to funding the new chairman, these funds will be used to support multiple new investigators, as start-up funds for new equipment, and for the renovation of laboratories. Additional space will be provided in a new building currently under construction, to be completed by early 1989. The department includes 18 faculty members with full-time primary appointments and a well-established graduate program with 35 trainees.

The applicant must have a Ph.D., M.D., or equivalent degree, be internationally recognized for contributions to molecular biological research, be committed to educational activities, and clearly demonstrate leadership and administrative capabilities. The successful candidate is expected to be an outstanding scientist with an ongoing, independent and well-funded research program. This person will be expected to promote the molecular biological research capabilities of the Department, the Medical School and the University, to recruit outstanding scientists to the faculty, and to enhance the teaching programs of the departments.

Interested applicants should submit a curriculum vitae including the names of 3 references to: Dr. James D. Potter, Dept. of Pharmacology, University of Miami, P.O. Box 016109, Miami, FL 33101.

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Interested candidates send their curriculum vitae with references and salary history to:

BACHEM Bioscience, Inc.
3700 Market Street
Philadelphia, PA 19104

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

DEPARTMENT OF BIOLOGICAL SCIENCES
FACULTY POSITIONS

The Department of Biological Sciences, Rutgers University invites applications for three tenure-track faculty positions at the level of assistant or associate professor. These positions represent the continuing development within our faculty of a strong integrated research concentration in cellular and molecular biology. The details of these positions are as follows:

CELL BIOLOGY. We seek a scientist with research interests and experience in the molecular genetics and biochemistry of eukaryotic cells. The successful candidate will join a strong nucleus of cell biologists already within the Department and University. (Dr. Alice Liu, Search Committee Chairperson).

MAMMALIAN CELLULAR/MOLECULAR BIOLOGIST. A position is available for someone desiring to pursue a research program involving molecular/biochemical studies on the regulation of gene expression in mammalian cells, with a focus on functions implicated in transformation, proliferation, metastasis or cell-cycle phenomena. (Dr. David Denhardt, Search Committee Chairperson).

DEVELOPMENTAL NEUROBIOLOGY OR DEVELOPMENTAL GENETICS. We are particularly interested in individuals using molecular and cellular approaches as applied to the areas of developmental neurobiology and/or the genetic regulation of development. Other areas of modern development biology will also be considered. (Dr. Howard Passmore, Search Committee Chairperson).

The successful candidates for these positions will be expected to develop and sustain a strong research program and to contribute to departmental teaching. Terms of appointment are competitive and will provide an excellent opportunity to develop an independent research program. The positions will be available as of January 1, 1989 with flexibility in the actual start date of appointment. Send curriculum vitae, a description of research interests, and the names of at least three references to the chairperson of the appropriate search committee as listed above, PO Box 1059, Piscataway, NJ 08855.

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CASE WESTERN RESERVE UNIVERSITY
Dean of Mathematics and Natural Sciences
Case Western Reserve University invites nominations and applications for the position of Dean of Mathematics and Natural Sciences. This is a new position, currently filled by an interim appointee. A permanent appointment will be made as soon as the search process reaches a conclusion.

The Dean will be responsible for providing academic leadership for the faculty of Mathematics and Natural Sciences, and for developing the faculty, staff, and financial resources needed to sustain high standards in teaching, research, and scholarship. Specific responsibilities include review of all recommendations for appointment, promotion, and tenure, with an active role in faculty recruitment; establishment and management of expense budgets for the Mathematics and Natural Sciences departments within the overall budgetary framework of the Colleges; development of curricular and research initiatives; program planning and evaluation; and active participation in fund-raising and strategic planning. The Dean reports administratively to the Dean of the Colleges, but coordinates as well with the Provost and the deans of the professional schools on a number of academic matters.

The faculty of Mathematics and Natural Sciences consists of 90 full-time faculty in departments of Astronomy, Biology, Chemistry, Geology, Mathematics, and Physics. A successful candidate should hold a terminal degree in one of these disciplines and be eligible for a tenured faculty appointment. Other qualifications include a successful record of achievement in teaching, research, and administration, with a demonstrated commitment to excellence. Applicants should send a letter of interest, along with a current curriculum vitae and the names of three or more references, to: Search Advisory Committee for the Dean of Mathematics and Natural Sciences, c/o Vice President Richard E. Baznik, Case Western Reserve University, Adelbert Hall, Room 26, Cleveland, OH 44106.

Review of candidates will begin immediately, although applications and nominations will be received until the position is filled.

In employment, as in education, Case Western Reserve University is committed to equal opportunity and affirmative action.

OKLAHOMA MEDICAL RESEARCH FOUNDATION

Postdoctoral fellowship positions are available in the Cardiovascular Biology Research Program at the Oklahoma Medical Research Foundation. The program centers on cell-mediated events that regulate blood coagulation with emphasis on inflammatory mediators. A multidisciplinary approach is available that provides experience in one or more of the following areas: protein chemistry, physical chemistry, physiology, molecular biology, and the cell biology of platelets and endothelial cells. Fellows are encouraged to participate in collaborative projects within the group. The laboratories are located in a new building with excellent facilities. Core services include peptide and oligonucleotide synthesis, gas phase microsequencing, direct access to a VAX computer network for analysis of DNA and protein sequences, molecular graphics, fluorescence imaging and spectroscopy, scanning and reaction titration calorimetry, endothelial and hybridoma cell culture laboratories, electron microscopy, and flow cytometry. Positions are currently available with Drs. Phillip Comp, Charles and Neomi Esmon, Rodger Plutzer, Peter Sims, Fletcher Taylor, or Therese Wiedmer. Applicants should send C.V.s and references to any of the above investigators at the

Cardiovascular Biology Research Program
Oklahoma Medical Research Foundation
825 N.E. 13th St.
Oklahoma City, OK 73104.

OMRF is a private, non-profit, equal opportunity employer located adjacent to the University of Oklahoma Health Sciences Center. Salaries are competitive and commensurate with experience.

U.S. Department of Energy
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Call for Letters of Interest

The Advanced Light Source, a national user facility at the Lawrence Berkeley Laboratory for the production of high-brightness, partially coherent X-ray and ultraviolet (XUV) synchrotron radiation, is scheduled to begin serving users in the fall of 1992.

LBL is now seeking initial expressions of interest from users who plan to participate in the instrumentation of ALS beamlines as members of:

- An Insertion-Device Team (IDT)
- A Bending-Magnet Team (BMT)

Letters of interest are encouraged from:

- Groups of Scientists
- Institutions
- Individual Scientists

LBL will be pleased to assist in the formation of multi-institutional groups in various areas of research by matching scientists with like interests.

The earliest beamline decisions will be made by September 1, 1988. Those who wish to submit letters of interest should write to:

Arthur L. Robinson, Assistant Scientific Director
Advanced Light Source
80-101
# 1 Cyclotron Road
Berkeley, CA 94720
RESEARCH ASSOCIATE—MOLECULAR NEUROBIOLOGY

The Jackson Laboratory, a center for mammalian genetics research located on the coast of Maine, has an immediate opening for a research associate with an M.S./M.A. in the biological sciences or a B.S./B.A. with relevant experience. This position offers an opportunity for active and original participation in a research program directed at understanding the roles of specific cell adhesion molecules and the genes which encode them, in normal and abnormal development of the nervous system. Laboratory duties include DNA/RNA preparations, Southern/Northern in situ hybridization, gene cloning in expression vectors, and cell culture. Please send curriculum vitae, transcripts, and three letters of reference to: Harold Wheeler, Employment Manager, The Jackson Laboratory, Bar Harbor, ME 04609. Telephone: 207-288-3371. Affirmative Action/Equal Opportunity Employer/M/F.

RESEARCH ASSOCIATE

Research assistant professor for Basic Science Research in Surgical Research Laboratory. Requirements should include previous experience in research laboratory, M.D. or Ph.D. in pharmacology. Send curriculum vitae, references, and an opportunity statement. Clinical Business Manager, Box 181, Department of Surgery, University of Virginia Medical Center, Charlottesville, VA 22908. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE

The Department of Pharmacology, SUNY/Health Science Center at Syracuse wishes to hire an M.D. or Ph.D. with experience in molecular dynamics and cellular and subcellular cardiac electrophysiology. One goal is to study dynamically complex arrhythmias and rate-dependent block processes in heart tissues, in experiments and computer simulations. Background in nonlinear mathematics and chaos theory as well as experience with computers and computer hardware and software are required. Please send a complete curriculum vitae and list of references to: Dr. Donald C. Michaels, Department of Pharmacology, SUNY/Health Science Center, 760 Irving Avenue, Syracuse, NY 13210. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE

The Laboratory of Genetics, The Rockefeller University, solicits applications for the position of research associate. Applicants must have a Ph.D. in molecular biology with experience in genetic and/or developmental biology or mammalian cell culture. This appointment will be associated with the molecular biology of Drosophila neurogenesis. A strong record of publications in this area is necessary to demonstrate potential for independence in research. The successful applicant will also participate in ongoing projects involving repressor protein biochemistry. One year of experience in the area of molecular biology is also required. Competitive salary and benefits are available. For consideration send curriculum vitae and the names of three references to: Dr. Michael Young, The Rockefeller University, 1230 York Avenue, New York, NY 10021. An Equal Opportunity Employer.


RESEARCH ASSOCIATE AND POSTDOCTORAL FELLOW with experience in molecular biology and nucleic acid biochemistry are needed for research on molecular mechanisms of mutation using purified replication proteins. Send applications to: Dr. Navin Sinha, Waksman Institute, Rutgers—The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855. Rutgers is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE AND POSTDOCTORAL FELLOW with experience in molecular biology and nucleic acid biochemistry are needed for research on molecular mechanisms of mutation using purified replication proteins. Send applications to: Dr. Navin Sinha, Waksman Institute, Rutgers—The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855. Rutgers is an Equal Opportunity/Affirmative Action Employer.

RESEARCH INSTRUCTOR/RESEARCH ASSISTANT PROFESSOR—The Division of Cardiovascular Disease seeks an applicant for a non-tenure track position for teaching and mentoring of cardiology fellows in molecular biological approaches and techniques (i) in an ongoing research program to study the regulation of contractile protein genes. The successful applicant will also design and carry out an independent research project in the future. A Ph.D. in a biological science and postdoctoral experience in molecular biology and cell biology is required. It is essential to have experience in the study of myofibrillar proteins, and the regulatory mechanisms directing expression of those genes in cardiac and skeletal muscles. Experience with protein purification, tissue culture, and nucleic acid manipulations and techniques desirable. Send curriculum vitae and names of two references to: Dr. Patrick Umeda, University of Alabama at Birmingham, Division of Cardiovascular Disease, Room 311 THT, UAB Station, Birmingham, AL 35294. An Equal Opportunity/Affirmative Action Employer.

RESEARCH INVESTIGATOR AND POSTDOCTORAL FELLOW: This position is available immediately to study the structure and hormonal control of eukaryotic genes. Applicants must have a Ph.D. or an M.D. degree with experience in reproductive endocrinology and experience with recombinant DNA or protein purification techniques. Minimum of 3 years of postdoctoral training in molecular biology is required for the Research Investigator's position. Send curriculum vitae and the names of three references to: Dr. Olli A. Janne, Associate Division Director, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.

RESEARCH INVESTIGATOR AND POSTDOCTORAL FELLOW: This position is available immediately to study the structure and hormonal control of eukaryotic genes. Applicants must have a Ph.D. or an M.D. degree with experience in reproductive endocrinology and experience with recombinant DNA or protein purification techniques. Minimum of 3 years of postdoctoral training in molecular biology is required for the Research Investigator's position. Send curriculum vitae and the names of three references to: Dr. Olli A. Janne, Associate Division Director, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.

RESEARCH OPPORTUNITIES—Postdoctoral fellow—research technician: The Molecular Biology of Retroviruses Research Laboratory at the Sloan-Kettering Institute seeks additional staff personnel to participate in a series of collaborative studies of the biology of HIV-1. The positions require Ph.D. in biochemistry and/or molecular biology. Experience with cell culture techniques, immunoassays, and immunochemistry is preferred. Experience with patients is essential. If interested, please send curriculum vitae to: Mr. E. L. Kleinert, Employment Department #553, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Opportunity Employer, M/F/V.

RESEARCH SCIENTIST—Ph.D. (chemistry, biochemistry or pharmacology) sought to organize and operate the biochemical and pharmaceutical laboratory of the Department of Anesthesiology. Highly collaborative individual needed with good supervisory skills. Knowledge of and experience with assays for muscle relaxants, narcotics, hormones (especially catecholamines), substrates and nitrogen balance. Experience with HPLC, TLC, GC, and HPLC. Candidate's area of research and publications would be in pharmacokinetics, pharmacodynamics or muscle relaxants and narcotics, substrates and hormonal responses to surgical stress and related areas. Apply with curriculum vitae to: Dr. Richard H. Hackett, Department of Anesthesiology, Columbia University College of Physicians and Surgeons, P & S Box 46, New York, NY 10032.

RESEARCH SCIENTIST to conduct drug studies in response to the continuing necessity of developing new agents for the treatment of human disease. Applicants should have a Ph.D. in pharmacology or a related field, as well as training in biochemistry and pharmacokinetics. Successful applicants will be responsible for the design and conduct of animal studies. Applicants should have relevant experience in pharmacology, and be familiar with current techniques in this field. Salary: $22,000 per year; 40 hours per week. Contact: The Job Service at P.O. Box 82, Winston-Salem, NC 27102 or the local Job Service office. Refer to Job Order Number NC 7904106.
JPL/NASA VISITING
SENIOR SCIENTISTS
SPACE PHYSICS DIVISION

The Jet Propulsion Laboratory invites applications to its Visiting Senior Scientist Program in the following areas:

Ionospheric and Magnetospheric Physics

We are accepting applications for senior scientists in the area of magnetospheric and/or ionospheric physics to serve as Discipline Scientists at NASA Headquarters in Washington, D.C. The successful applicants will be involved in the formulation of strategies and implementation of plans and programs for the recently formed Space Physics Division, which includes branches in both ionospheric and magnetospheric physics.

These branches cover the areas of solar-terrestrial and space plasma physics, including activities in the U.S. as well as collaborations with international organizations. Current branch responsibilities include oversight of Research and Analysis Programs, operating satellites (e.g. Mariner, International Cometary Explorer, Dynamics Explorer, AMPTE/CCE and IMP-8), the Sounding Rocket Program, and programs in planning including the International Solar-Terrestrial Physics Program (ISTP) and use of the Space Station. A Ph.D. (or equivalent research experience) in space plasma physics or a closely related discipline with 3 years’ experience in a NASA sponsored research program is required. For more information about the scope of the program and position responsibilities, contact Dr. Stanley D. Shawhan, (202) 453-1676. Deadline for application is July 15, 1988. Refer to Dept. U60.

Solar Physics Branch

The Space Physics Division at NASA Headquarters is seeking an individual with a background in solar physics to aid in the development and coordination of the NASA solar physics research and technology efforts. NASA’s solar program addresses all aspects of contemporary solar physics, ranging from the Sun as a representative star to the Sun as the object that generates the Earth’s space environment as well as the development of advanced instrumentation for space and balloon-borne solar missions.

As a Staff Scientist in the Solar Physics Branch at NASA Headquarters, the incumbent will provide lead responsibility for the administration of the Solar Physics Supporting Research and Technology, Data Analysis, and Suborbital Programs. In addition, the incumbent will serve as a recognized expert in solar physics for the structuring of NASA programs, and in relating those programs to not only the overall needs of the U.S. scientific community but to those of collaborating foreign nations as well. Frequent travel and residence in the Washington, D.C. area will be required. This position is open for immediate filling. Refer to Dept. U66.

Tenured faculty members are the preferred choice although qualified individuals from non-profit research institutions may also be considered. Normal assignment in the Visiting Senior Scientist Program does not exceed two years. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following the NASA assignment. Please provide curriculum vitae, bibliography and the names of four references, indicating area of interest and department number, to:

Dr. Harry Ashkenas 180-900
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, California 91109
(818) 354-6251

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RESEARCH GROUP LEADER
New Product Development

Within our Clinical Pharmacokinetics/Bioanalytical Department, this person will be responsible for a methods development group which concentrates on improving and establishing bioanalytical procedures to use on marketed and new chemical entities from Glaxo Research and transferring these new methods to analysts which support the Clinical Development and Research programs. While supervising 2-3 research scientists on independent research based or method development projects, this individual will assist in problem-solving chromatographic problems involving method development and study proper analysis projects.

Background must include a Ph.D. in Analytical Chemistry or a related area with 3-5 years experience in the pharmaceutical industry or academia. A strong chromatography background with excellent problem solving skills are required, as well as experience with a variety of chromatography techniques (e.g. GC/LC, HPTLC, GC/GC/MS and RIA). Computer literacy using micro and mainframe computers and experience using various data acquisition systems (MAXIMA, NELSON, LAS, etc.) and software is required.

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Candidates interested in this position, please send resume, including salary history, to:

Human Resources Department
Job # 8620X830

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POSITIONS OPEN

SENIOR SCIENTISTS
Sandoz Crop Protection is seeking a Ph.D. biochemist, preferably with postdoctoral experience, in the area of peptide/protein isolation and sequencing. Preference will be given to applicants with experience in microisolation of neuropeptides. Background in other aspects of peptide/protein chemistry, such as protein transport or metabolism are also desirable. For consideration, please send your curriculum vitae and letter of interest to: Sandoz Crop Protection, Zellstoff-Siegetech, Amri, 20756 Hamburg, Germany.

SUPERVISORY NEUROSCIENTIST
The U.S. Army Medical Research Institute of Chemical Defense is seeking a neuroscientist, GM-14, (physiologist, pharmacologist, or psychologist) to serve as Chief of the Neurotoxicology Branch, Pathophysiology Division. Responsibilities include planning and supervising the research programs and research assignments of fifteen to twenty civilian and military personnel and contractors concerned with investigations of the mechanisms of action on neural substrates of chemical agents, such as anticholinesterase inhibitors, and/or neurotoxic threat agents. The goal of these research initiatives will be the development of treatment regimens for threat agents. Qualified applicants should have an extensive and varied professional background in electrophysiology, neuroanatomy, neurophysiology, neuropharmacology, pharmacology, biochemistry, experimental psychology and neurotoxicology as well as experience in multidisciplinary research program planning and administration. The ideal candidate will have a Ph.D. in one of the basic animal sciences, physiology, pharmacology, psychology, or a closely related discipline. Salary range: $46,000-$60,000. Ability to travel and must be able to obtain a security clearance. Send resumes by 1 July 1988 to: Commander, U.S. Army Aberdeen Proving Ground. Attention: STEEP-PA-OR-D (M. Bynum), Aberdeen Proving Ground, MD 21005-6001. Equal Opportunity Employer.

PRE-ANNOUNCEMENT—UNIT LEADER
This is a pre-announcement for the position of unit leader at the Texas Cooperative Fish and Wildlife Research Unit. The position will be announced through the Office of State and Local Government Colloquium. Experience is desirable in one of the following fields: Fisheries ecology and management, aquatic ecology (limnology, aquatic contaminants, etc.), wildlife ecology and management, or endangered species ecology. The unit leader (with extensive experience beyond the Ph.D.) guides and directs all research activity, scientific research and graduate training with one assistant leader in fisheries science and one assistant leader in wildlife science. The leader will be expected to teach one course per year and prepare refereed publications. The application period will be only 5 days. Therefore, please have an updated SF-171 prepared to send to the appropriate CMP Office. Applicants should send curriculum vitae, three letters of recommendation, and a cover letter detailing specific qualifications for this position to: Dr. Henry A. Wright, Department of Range and Wildlife Management, Texas Tech University, Lubbock, TX 79409. Telephone: 806-742-2481.

VERTEBRATE BIOLOGY: Cumberland College a private, church-related, liberal arts college, invites applications for a tenure-track position to begin in August 1988. Courses taught will include comparative vertebrate anatomy, vertebrate field biology, comparative physiology, and human anatomy and physiology as well as freshwater and oceanic biology. Specialization in a particular vertebrate field or area of interest may be developed. This position requires a strong commitment to undergraduate education. It is expected that the candidate will teach both introductory and advanced course offerings and be willing to engage students in undergraduate research experiences. The teaching load is currently four courses per semester. Applications are due by June 1, 1988. Further information may be obtained from Dr. Paul C. Keating, Department of Biology, Cumberland College, Williamsburg, KY 40769. Deadline: 10 June 1988.

POSITIONS OPEN

TEACHING POSITIONS IN BIOLOGY AND PHYSICS
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Biology—Two Positions. Each individual must be able to teach a college-level general biology course as well as one or two of the three elective courses Ecology, Introductory Genetics, and Human Biology. Knowledge of molecular/cellular biology would be helpful. Physics. Must be able to teach an algebra-based level general physics course to highly gifted 10th grade students. The course emphasizes problem-solving and exploration, and requires flexibility and creativity from the instructor. Experience in research, directing student research, and computers is recommended. In addition to the above positions, the Academy will be considering one or more of the following elective courses: electronics, astrophysics, modern physics, and observational astronomy. The Academy is a 3-year residential school which offers college-level courses to high school students highly gifted in mathematics and science. The Academy is 40 miles west of Chicago. Applications can be obtained from:

Illinois Mathematics and Science Academy
1500 West Sullivan Road
Aurora, IL 60506
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TRIENURE-TRACK FACULTY POSITION DEPARTMENT OF METALLURGICAL ENGINEERING AND MATERIALS SCIENCE CARNegie MELLON UNIVERSITY

The Department has openings for faculty members at the assistant, associate, or full professor level, and is seeking prospective candidates. Desired areas of specialization include polymeric materials, physical metallurgy, and superconductors. Applicants should be able to have a Ph.D., a demonstrated research potential or record in topics covered by the above areas, be interested in developing a very strong research program, and be enthusiastic and qualified to teach.

Please send résumé and a list of references to: Professor A. W. Thompson, Head, Department of Metallurgical Engineering and Materials Science, Carnegie Mellon University, Pittsburgh, PA 15213. Telephone: 412-268-2700. Equal Opportunity/Affirmative Action Employer.

VETERINARY MICROBIOLOGIST
A tenure-track position in veterinary microbiology. A Ph.D. or D.V.M./Ph.D. required. Responsibilities include research in broad area of pathogenic mechanisms and immunobiology of bacterial diseases of animals; supervision of diagnostic microbiology lab and teaching an undergraduate and graduate course. Experience in molecular biology, recombinant DNA technology and immunology is desirable. Rank and salary commensurate with experience. Send curriculum vitae and three references to: Dr. Louis van der Heide, Search Committee, Department of Pathobiology, University of Connecticut, U.S.P. Room 103, 61 Eagleville Road, Storrs, CT 06268. (Search #8A309).

SYMPOSIUM

IN SITU EVALUATION OF BIOLOGICAL HAZARDS OF ENVIRONMENTAL POLLUTANTS, 5 to 7 December 1988, Hotel Europa, Chaplin Hill, North Carolina. The conference will focus on the application of currently available biosayos for in situ environmental assessment and on the evaluation of the utility of chemical and molecular biology data obtained under real world conditions for the assessment of human health effects from exposure to a given environment. Requests for registration materials should be made to: Barbara M. Andon, Environmental Health Research and Testing Inc., P.O. Box 12119, Research Triangle Park, NC 27709. Telephone: 919-541-7532.

WORKSHOP

THE ECONOMIC IMPACT OF AIDS 27 SEPTEMBER 1988

Conference in Baltimore sponsored by the Johns Hopkins University School of Public Health. Focus on methodological issues in the design and implementation of study to estimate direct and indirect costs related to HIV infection. Attendance limited to approximately 300 persons. Details and application forms from: AIDS Conference, 407 Hampton House, 624 North Broadway, Baltimore, MD 21205.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP available immediately to work on molecular aspects of T lymphocyte activation. Projects include examination of myc and flu oncogene expression, generation of intracellular second messengers, and control of calcium ion flux in T cell substates of normal and antigen-activated cells. Send curriculum vitae and names of three references to: Dr. Richard A. Miller, Boston University Medical Center, 80 East Concord Street, Boston, MA 02118. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP, NIH. Research in: evolution and molecular genetics of genes coding for enzymes that metabolize drugs, carcinogens and occupationally hazardous substances; positive and negative regulatory elements; characterization of genes encoding trans-acting factors; developmental and tissue-specific gene expression. Clinical applications: predicting individual risk of certain malignancies and adverse drug reactions. Background in molecular biology or biochemistry is required. Salary commensurate with experience and qualifications. Send curriculum vitae and the names of three references to: Dr. John Mclllon, 412-268-2700. Equal Opportunity Employer.

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