New IBI software gives Macintosh users the most comprehensive sequence analysis capabilities ever assembled on a desktop in an easy-to-use, affordable package. Compatible with all Macintosh models, including the Macintosh II, IBI software handles over 100 applications and every major database including GENBANK™, BIONET™ and NBRF.

Enter your sequences via the keyboard or an IBI Gel Reader. IBI gives your Mac the analytical capabilities to restriction map, translate sequences, identify open reading frames, determine base and amino acid compositions, perform homology comparisons, run global searches of available databases and much more.

IBI takes advantage of unique Macintosh design features to save time on every function. It performs virtually every application — from searches to homologies — faster than other comparable programs. For example, it takes less than 20 seconds to find all restriction sites generated by 125 individual enzyme digests of pBR322.

Each program gives you a host of valuable features not available from other software packages. For instance, all DNA programs use both strands 5' to 3'. Restriction analysis lets you select only enzymes that cut in a specific reading frame or enzymes that fit a combination of characteristics (e.g., size of cut site, end structure) that you identify. You also get the flexibility to combine and move between subroutines quickly on-screen.

The Global search program quickly identifies all database entries containing possible matches with your sequence. The Homology matrices then identify different levels of homology using a weighting scheme you define. This same weighting scheme is also useful in structural studies, allowing you to compare a sequence against itself to identify direct repeats and stem-loop structures.

Protein users can also reverse translate, predict antigenic sites, predict protein flexibility, predict hydrophilicity and much more.
Mac into tool in your lab.

Macintosh SE

Macintosh SE interface used for loading sequence in Secondary Structure Prediction program.

Global search: top seven matches of a DNA global search displayed graphically showing regions of similarity, insertions, deletions and strand.

Base composition of the entire sequence (greater than 70 Kb) of the human Beta-globin locus.

Macintosh II

Homology matrix of a subregion of SV40 against itself showing similarity in both orientations.

Restriction enzyme analysis: sequence of pBR322 translated and fully annotated with all restriction cut sites.

Hydropilicity and Surface Probability Plot of the Human Growth Factor protein.

And with IBI software you never have to waste time reformatting data. It is the only Macintosh software program that lets you use sequencing data in every major format including GENBANK™, BIONET™, STADEN, LINE and UWCG (Wisconsin).

Be the first in your lab with these desktop capabilities.

Use the most comprehensive software available for any microcomputer. Call today to order or to request additional information.

Call or write.

IBI, P.O. Box 9558, New Haven, CT 06535, 1-800-243-2555, or 203-786-5600.
In Canada, call (416) 362-8278.
In the UK, call Cambridge (0223) 242813.

The Cutting Edge of Molecular Biology
Circle No. 274 on Readers' Service Card
positions wanted


Tumor and Cell Biologist, M.D., Ph.D. Experience: Receptor biochemistry, peptide hormones, second messengers, cell differentiation, animal and cell culture models, molecular biology. Thirty publications. Seeking staff faculty position in academia or industry. Box 160, SCIENCE.

positions open

All national openings multiple levels

Recruiting for degree professionals in the following fields:
1. Pharmacokinetics—industrial or postdoctorate. Pre-clinical and clinical. Up to $65,000.
2. Pharmaceutical formulation scientists—solid and parenteral. Up to $50,000.
3. Clinical researchers and auditors—cardiovascular, infectious disease, and CNS drugs. Call or send resume.

Guy andrew

central clearing, Inc.

10031 west Roosevelt road

Winnetka, Ill. 60093

Telephone: 312-450-2660

Texas—ANATOMIST. Full-time, tenure-track position. Applicants should hold Ph.D. or M.D. degree, record of productive research in neuroscience area and teaching experience in an anatomic discipline. Preference given to genetic area. Salary commensurate with qualifications and appointment at associate or full professor level.

Send complete curriculum vitae, including names of three professional references, to: W. J. Gray, head, department of anatomy, college of medicine, Texas a&m university, college station, TX 77843.

Texas A&M University is an Equal Opportunity/Affirmative Action Employer.

assistant professor

molecular-cell virology

The Department of Microbiology and the college of Medicine at the University of Illinois, Urbana-Champaign, seeks candidates for a full-time tenure-track faculty position at the assistant professor level. Starting date is August 1989. Applicants should hold Ph.D. or M.D. degree, postdoctoral experience, and show exceptional promise to develop an active research program in virology. Preference will be given to individuals with active research programs in the molecular or cellular biology of viral infection, or the application of viruses to study molecular genetics, cell biology and/or development. Responsibilities will include teaching medical and graduate students. Salary commensurate with qualifications.

The University of Illinois at Urbana-Champaign offers outstanding research facilities that include state-of-the-art facilities for molecular engineering, hybridoma production, flow cytometry, electron microscopy, r-ray crystallography, and up to $60,000 research grants. There are extensive opportunities for interdepartmental interactions in both microbial and eukaryotic cell and molecular biology, virology, immunology, biochemistry, and physics.

Applicants should submit curriculum vitae, statement of research interests, and the names of three references to:

Jeffrey F. Gardner

Department of Microbiology

University of Illinois

1314 ATTRI hall

407 south Goodwin avenue

Urbana, Il 61801

Telephone: 217-333-1736

To ensure full consideration applications should be received by 15 January 1989. Interviews may be con- ducted prior to 15 January 1989 but all applications received by that date will be given full consideration.

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

assistant professor

molecular biology

a position is available immediately to join a laboratory investigating immunological and immunobiological mechanisms of gene expression. Applicants should have a recent Ph.D. in molecular biology with a strong background in recombiant DNA techniques. Experience in both recombinant technology and molecular biology is preferred. Projects will focus on development of recombinant antibodies and immunotoxins.

Send curriculum vitae, thesis abstract, and names and addresses of three references to: Dr. j. a. brumbaugh, School of Biological Sciences, 348 Manter Hall, University of Nebraska-Lincoln, Lincoln, NE 68588-0118. Affirmative Action/Equal Opportunity Employer.

assistant professor

biochemistry

The Chemistry Department at Hartwick College invites applications for a regular position at the Assistant Professor level in developmental biology commencing with the academic year 1989 to 1990. A Ph.D. is required. The successful applicant is expected to pursue developmental research at the molecular and/or cellular level and to seek extramural research funding. Release-time from teaching for this purpose will be available initially. We seek an individual committed to teaching and directing the research of highly motivated under- graduates. Hartwick College is a highly selective undergradu- ate institution with a strong commitment to excellence and scholarship. Applications including curriculum vitae and three recent letters of reference should be sent by 15 December 1988 to Dr. P. E. Miller, Biology Search Committee, Reed College, Portland, OR 97202. Reed College is an Equal Opportunity/Affirmative Action Employer.

assistant professor

molecular biology

We seek an individual to operate the Laboratory for DNA Sequencing and Genetics at Reed College which is part of the Center for Biotechnology. The position and facility are supported by state of Nebraska funds. The appointee will be responsible for supervising laboratory staff, operating two Nebraska-developed automated DNA sequencers and a PCR facility. Duties include: designing sequencing strategies, supervising staff, computer analysts, and interaction with on- and off-campus clients. Research responsibilities will include improving instrument capabilities and establishing fluorescently labeled PCR diagnostics.

Send curriculum vitae, synopsis of research interests and career objectives, and three letters of recommendation by 1 December 1988 to: Dr. J. A. Brumbaugh, School of Biological Sciences, 348 Manter Hall, University of Nebraska-Lincoln, Lincoln, NE 68588-0118. Affirmative Action/Equal Opportunity Employer.

assistant professor

molecular biology

A position is available immediately to join a laboratory investigating immunological and immunobiological mechanisms of gene expression. Applicants should have a recent Ph.D. in molecular biology with a strong background in recombiant DNA techniques. Experience in both recombinant technology and molecular biology is preferred. Projects will focus on development of recombinant antibodies and immunotoxins.

Send curriculum vitae, thesis abstract, and names and addresses of three references to: Dr. j. a. brumbaugh, School of Biological Sciences, 348 Manter Hall, University of Nebraska-Lincoln, Lincoln, NE 68588-0118. Affirmative Action/Equal Opportunity Employer.
POSITIONS OPEN

ASSISTANT PROFESSOR: Molecular/cell biologist. Tenure track. The Garnett College of Science and Mathematics invites applications for a tenure-track position to begin in June or September 1989. Teaching excellence, research involving students, and Ph.D. are required. Teaching areas: eukaryotic gene regulation, molecular genetics, developmental and cell biology. Department known for curricular innovation, quality teaching, and high proportion of majors going on to Ph.D. Excellent teaching and research facilities. Send curriculum vitae, teaching and research philosophy statement, transcripts, and three recommendations to: Dr. John Iverson, Biology, Earlham College, Richmond, IN 47374. Review begins 1 January 1989. Women and minority candidates are especially encouraged to apply. Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR: Clinical Pharmacology. Thomas Jefferson University. Applications are invited for the position of an Assistant Professor of Medicine in our expanding Division of Clinical Pharmacology. M.D. degree is required with postdoctoral training in clinical pharmacology or related area. Divisional research interests include thrombosis and atherosclerosis, clinical research, and cardiovascular pharmacology. Send curriculum vitae, a statement of current and future research plans, and a list of three references to: Dr. Thorir Jonsdottir, Division of Clinical Pharmacology, Department of Medicine, Jefferson Medical College, 1100 Walnut Street, Philadelphia, PA 19107. Thomas Jefferson University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR—Marine Biology. Tenure-track position beginning September 1989. Speciality to be physiological ecology or biomechanics of marine organisms. Possibilities include developing a Hopkins Marine Station-based research program, participation in an introductory biology course, teaching a course in marine biology and an advanced course based on one's specialty. Postdoctoral experience is preferred. Please send curriculum vitae, statement of teaching and research interests, and three letters of reference to: Dr. John Howland, Biology Department, Bowdoin College, Brunswick, ME 04011 by 1 December 1988. Bowdoin College is committed to Equal Opportunity through Affirmative Action.

ASSISTANT PROFESSOR—Molecular Immunology. The Department of Microbiology and Immunology at Kentuck Medical Center invites applications for a tenure-track position in the general area of molecular immunology. Emphasis will be placed on the consequences of molecular approaches toward the analysis of immunological problems. Specific areas of interest include T-cell receptors, immunoglobulin genes, lymphokines, or MHC. The successful candidate will join a highly interactive group of immunologists and molecular biologists as well as an excellent graduate program. A liberal salary and start-up package will be provided. The candidate will be expected to develop an independent research program and to contribute to both graduate and medical education. A Ph.D. degree and at least 2 years of postdoctoral research experience are required. Applicants should send curriculum vitae, a statement of research interests, and the names of three references to: Dr. Jerold G. Woodward, Department of Microbiology and Immunology, University of Kentucky Medical Center, Lexington, KY 40536–0084. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR—Cellular and Molecular Biology. Tenure-track position in the University of Wisconsin at Madison. The Department of Medicine invites applications for a faculty position (Assistant Professor or Associate Professor) in the area of Molecular Medicine to begin July 1, 1989. This position is open to candidates with a background in molecular biology. Candidates should have a Ph.D. or M.D. degree and demonstrate a strong commitment to both research and teaching. Applications should include a statement of research plan, teaching philosophy, a curriculum vitae, and three letters of recommendation. Send applications to: Dr. Robert Brown, Chair, Department of Medicine, University of Wisconsin, Madison, WI 53792-1100. Women and minority candidates are strongly encouraged to apply. University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR—Immunology/Microbiology. Applications are invited for a regular faculty appointment in a liberal arts college near Caltech with a strong science program. Occidental College expects excellence in both teaching and research. The successful applicant will receive a research start-up fund, a new building, start-up funds, and a half-time technician. Applicants should be able to teach immunology and introductory biology and to develop an ongoing research program involving undergraduates. Ability to teach microbiology is desirable but not required. Send curriculum vitae and three reference letters to: Laura L. Mays, Biochemistry, Biology Department, Occidental College, Los Angeles, CA 90401. By 15 December 1988. Occidental College is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF BIOLOGICAL CHEMISTRY. Johns Hopkins University School of Medicine. The Department of Biological Chemistry at The Johns Hopkins University School of Medicine invites applications for a tenure-track position at the assistant professor level. The department is looking for candidates with a commitment to excellence in research and teaching in biochemistry. Applicants should submit curriculum vitae, list of publications including representative reprints, three letters of recommendation, and a summary of research plans to: Dr. Gerald W. Hart, Search Committee Chairperson, Department of Biological Chemistry, The Johns Hopkins University School of Medicine, Baltimore, MD 21205. To insure full consideration, applications should be received by 31 January 1989. Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF BIOLOGY. The Department of Biology at Loyola College has an opening for an entry level, tenure-track position beginning fall 1989. Applicants should have the Ph.D. in an appropriate field and both teaching and research experience. Responsibilities include teaching courses in general biology and one other upper-division course, involvement in curricular development, and supervision of undergraduate projects. Undergraduates work on research projects. Applicants should send curriculum vitae, statement of teaching and research interests, and names of three references to: Dr. James Wurts, Chairman, Department of Biology, Loyola College, Baltimore 19891. Equal Opportunity/Affirmative Action Employer.
ASSISTANT PROFESSORSHIP—IMMUNOLOGY/VIROLOGY. Medical school microbiology department with active Ph.D. program seeks one assistant professor (tenure-track) for appointment starting July 1989 (date negotiable). Responsibilities include development of productive independent research program plus team teaching in medical and graduate courses. Research facilities and start-up support are excellent. All outstanding candidates are encouraged to apply, but preference may be given to individuals who study immunology or molecular aspects of pathogenic microorganisms or viruses or bacteria. Doctoral degree and postdoctoral research experience are required. Selection will be based on potential for excellence in research and teaching. Salary commensurate with training and experience. Applicants should submit curriculum vitae, a statement of research interests, recent publications, and three professional references to: R. M. L. Grimes, M. D., Ph.D., Chairman, Department of Microbiology, c/o Civilian Personnel Division, Uniformed Services University of the Health Sciences, Bethesda, MD 20814–4799. Equal Opportunity/Affirmative Action Employer.

THE CENTER OF NEUROSCIENCE DEPARTMENT OF ANATOMY AND NEUROBIOLOGY COLLEGE OF MEDICINE THE UNIVERSITY OF TENNESSEE, MEMPHIS

Positions of ASSISTANT AND ASSOCIATE PROFESSOR are available. Rank and salary will be commensurate with experience and qualifications. Candidates must show evidence of strong research achievement. The department is the center of a rapidly expanding, multidisciplinary neuroscience program. Candidates must be pursuing research programs in neuroscience, especially molecular neurobiology, neurochemistry, and neurogenetics. The position also requires teaching anatomical courses. Please submit by 30 November 1988 curriculum vitae, statement of research interests, and names of three individuals who can be contacted for letters of reference to: S. T. Garrett, Chairman, Department of Anatomy and Neurobiology, College of Medicine, The University of Tennessee, Memphis, 875 Monroe Avenue, Memphis, TN 38163 or contact interviewer at the Placement Service, Society for Neuroscience Meeting, UT Memphis is an Equal Opportunity Affirmative Action Employer.

The University of Maryland Center for Environmental and Environmental Sciences (CRES) and the Horn Point Environmental Laboratories (HPFEL) and the UM Sea Grant Extension Program seek a postdoctoral position in aquaculture biology. We are interested in studying the effects of pollutants on the physiology of fish and shellfish. Postdoctoral candidates interested in studying the effects of pollutants on the physiology of fish and shellfish are encouraged to apply. The University’s Sea Grant Extension Program cooperates with Cooperative Extension Service. Send curriculum vitae and names of three references to: R. A. Ugelstad, Horn Point Environmental Laboratories, UMES, P.O. Box 775, Cambridge, MD 21613. The UM is an Equal Opportunity/Affirmative Action Employer.


ASSISTANT OR ASSOCIATE PROFESSOR TENURE-TRACK POSITIONS AT DEPARTMENT OF BIOCHEMISTRY TUFFS UNIVERSITY HEALTH SCIENCES CENTER, BOSTON

The Department is seeking candidates who have demonstrated potential in the area of molecular biology. Applicants are expected to show high potential for developing creative research programs. We will consider applicants with experience in any of the following areas: Genetic organization and expression, functional aspects of protein-nucleic acid interactions; and structure-function relationships in proteins. Applications should include curriculum vitae, letters of recommendation, and a brief statement of research interests. Candidates should have completed Ph.D. by June 1988. Candidates should be willing to participate in teaching of graduate and medical students. Salary is negotiable. Please submit curriculum vitae, statement of research interests, and names of three individuals who can be contacted for letters of reference to: Search Committee, Department of Biochemistry, Tufts University School of Medicine, 1 Boullanger II, Ann Arbor, MI 48109–0620. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR: Microbiology and Molecular Genetics, University of Colorado, Denver, invites applications for faculty position in the Department of Microbiology. The University is seeking a talented, productive, and creative individual with a Ph.D. and a strong background in molecular biology. The Department of Microbiology, with 12 members, has a strong research program in molecular biology and seeks a person to fill a tenure-track position in the area of molecular biology. The individual will be expected to build a competitive, independent research program and will have access to state-of-the-art facilities. The individual will also be expected to develop a lab course and contribute to the teaching mission of the Department. Send curriculum vitae, statement of research interests, teaching experience, and names of three references to: Dr. M. Zaban, Chairman, Department of Microbiology, University of Colorado School of Medicine, Denver, CO 80220. The University of Colorado is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR IN BACTERIAL PATHOGENESIS

The Department of Microbiology, Colorado State University, seeks applicants with Ph.D., D.V.M./Ph.D., M.D. or M.D. Ph.D. for one assistant professor position in bacterial pathogenesis. The applicant will be expected to develop and maintain a strong research program in bacterial pathogenesis and to teach in the pathology and medical microbiology courses. The ability to participate in the Medical Microbiology rotation is desirable. The department is located in a university setting with strong research programs in molecular biology, biochemistry, microbiology, and epidemiology. It is a very active and productive department with several ongoing research projects. The successful candidate will be expected to establish a strong basic research program that is accessible in its approach and to participate in Medical and Graduate School teaching. The Department has excellent opportunities for establishing new research programs. The position is open to individuals with research interests in molecular biology, genetics, biochemistry, or immunology. Send curriculum vitae, statement of research interests, and references to: J. C. Bleazard, Chairman, Microbiology Department, Colorado State University, Fort Collins, CO 80523. Closing date is 15 December 1988 (until a suitable candidate is found). Colorado State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR IN MOLECULAR BIOLOGY ALBERT EINSTEIN COLLEGE OF MEDICINE

Individuals with a record of excellence in postdoctoral research who can apply skills in biochemistry, molecular biology, genetics and develop problems relevant to molecular pharmacology are being sought. Candidates are expected to devise an innovative research program and develop a record of excellence in the theme of the transmission of information and molecules across membranes is the focus for recruitment. Research areas of interest include: mechanisms of drug, hormone, growth factor and neurotransmitter actions; regulation of gene expression and differentiation by carcinogens, hormones and therapeutic agents; molecular basis of drug resistance; and the development of new therapeutic strategies. The position is available for individuals with Ph.D. or equivalent degree in molecular biology, pharmacology, or related field. The successful candidate will be expected to hold tenure-track faculty positions at the Assistant/Associate Professor level. This is an Equal Opportunity/Affirmative Action position. Applications will be accepted until the position is filled. Send curriculum vitae, a statement of research experience, and the names of three references to: Dr. J. P. Newport, Search Committee, Albert Einstein College of Medicine, 1535 Fifth Avenue, New York, NY 10032. Equal Opportunity/Affirmative Action Employer.

BEHAVIORAL NEUROSCIENCE

The Department of Psychology, University of Florida, invites applications for a tenure-track position at the ASSISTANT OR ASSOCIATE PROFESSOR level, depending on experience and qualifications. The University is seeking a faculty member who specializes in research and teaching in the area of behavioral neuroscience. Candidates with a Ph.D. in a related field must have an established record of research and evidence of strong potential for continued excellence. The successful candidate will be expected to develop and maintain a strong research program in any area of psychology, but preferably one that includes the application of modern neurobiological techniques to the study of behavior. The successful candidate will have demonstrated the potential to obtain and secure extramural support for research and teaching. The University is an Equal Opportunity/Affirmative Action Employer. Applications should be sent to: Department of Psychology, University of Florida, Gainesville, FL 32611. Closing date: 31 December 1988. The University of Florida is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST—DUKE UNIVERSITY MEDICAL CENTER

The Connective Tissue Laboratory of the Department of Medicine is seeking candidates with Ph.D. or M.D. for positions in the Department of Medicine. The laboratory is involved in studies designed to explore the regulation of collagen biosynthesis and collagen gene expression in normal and pathological tissue. The laboratory is interested in obtaining an individual with special expertise in the area of molecular biology and the ability to develop a research program in the area of molecular biology and genetics. The successful candidate will have demonstrated the potential to obtain and secure extramural support for research and teaching. The University is an Equal Opportunity/Affirmative Action Employer. Applications should be sent to: Dr. J. J. R. Pinnell, M.D., and Richard W. Winthrop, M.D.—Department of Medicine, Box 3135, Duke University Medical Center, Durham, NC 27710. Equal Opportunity Employer.

BIOMEDICAL MASS SPECTROSCOPIST

The University of Kentucky invites applications for a tenure-track faculty position in biomedical mass spectrometry. The successful applicant will possess the ability and willingness to collaborate with and develop a team of research professionals in the area of a new Biomedical Mass Spectrometry facility. A Ph.D. in chemistry or the biomedical/chemical sciences with extensive experience in mass spectrometry is essential. The applicant should be willing to interact with a wide variety of biomedical scientists to develop both a collaborative and independent research funding base. To apply, send curriculum vitae including current research, publications, funding history, and names of three references to: Dr. H. B. Kostenbauder Associate Director, Research College of Pharmacology University of Kentucky Lexington, KY 40506–0082 Applications should be received by 15 December 1988. Equal Opportunity/Employer.
CONGRESSIONAL SCIENCE AND ENGINEERING FELLOWSHIPS

Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for two 1-year Congressional Science and Engineering Fellowships it will offer for the period beginning 1 September 1989. The fellowship program provides an opportunity for accomplished and society-aware postdoctoral to mid-career scientists and engineers to participate in and contribute to the public policymaking processes within the Congress. Fellows work as special legislative assistants within the congressional staff system.

Persons may apply from any physical, biological, or behavioral science or any field of engineering. The term "science" is used broadly to include the system sciences, public health, and other technical professions. In addition to the fellowships awarded by the AAAS, about 15 others are given by other participating professional societies. The AAAS runs a year-long seminar program for both its own Congressional Science and Engineering Fellows and those selected by the participating societies. Addresses of all participating societies are available from the address listed below.

The 1989–1990 AAAS Congressional Science and Engineering Fellows will receive a stipend of $30,000; an additional $2,000 is available for relocation expenses and travel in connection with the program.

The deadline for submission of application materials is 15 January 1989. The award will be announced about 1 May 1989. For detailed information on the program and specific application requirements, write:

Congressional Science and Engineering Fellows Program
American Association for the Advancement of Science
1333 H Street, NW, Washington, DC 20005
Telephone: (202) 326-6600

EXECUTIVE BRANCH SCIENCE AND ENGINEERING FELLOWSHIP

Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for a 1-year Executive Branch Science and Engineering Fellowship to begin in early September, 1989. The fellowship program provides an opportunity for an accomplished and society-aware postdoctoral mid-career scientist to participate in and contribute to the public policymaking processes within one of several agencies in the Executive Branch of the Federal government. Placement will be made at an appropriate Federal agency, based upon the agency's needs and the interests and expertise of the Fellow. Included in the fellowship program is an intensive science policy orientation and a year-long seminar series dealing with a wide array of science and technology issues.

Prospective Fellows may apply from any physical, biological, or behavioral science or any field of engineering. Qualified applicants must demonstrate exceptional competence in some area of science or engineering, be flexible, and have some experience and/or a strong interest in applying knowledge toward the solution of societal problems.

The 1989–1990 AAAS Executive Branch Science and Engineering Fellow will receive a stipend of $30,000; an additional $2,000 is available for relocation expenses and travel in connection with the program.

Applications must be submitted by 15 January 1989, with the award to be announced about 1 May 1989. For detailed program information and specific application requirements, write:

Executive Branch Science and Engineering Fellowship Program
American Association for the Advancement of Science
1333 H Street, NW, Washington, DC 20005
Telephone: (202) 326-6600

BUILDING A NEW LAB?

LET THE SCIENCE FREE PRODUCT INFORMATION SERVICE PUT YOU IN TOUCH WITH THE VENDORS WHOSE PRODUCTS YOU WILL NEED.

SIMPLY WRITE US A LETTER STATING THE SPECIFICS ABOUT YOUR PROPOSED LAB AND WE WILL DO THE REST.

WRITE TO:

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

SCIENCE, ENGINEERING, AND DIPLOMACY FELLOWSHIPS

Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the U.S. Agency for International Development (AID) and the Department of State (STATE) is seeking applicants for approximately 12 Science, Engineering, and Diplomacy Fellowships. Fellows will spend 1 year, beginning 1 September 1989, working either in the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State or in one of several bureaus and offices of the Agency for International Development. Other assignments may also be possible.

Prospective Fellows must demonstrate exceptional competence in some area of science or engineering, be flexible, have some experience and/or a strong interest in applying knowledge toward the solution of problems in the area of foreign affairs, and have a Ph.D. or equivalent in years of experience. Awardees will work on scientific and technical subjects in international affairs; foreign policy for STATE and international development for AID. In general, individuals are urged to apply from any area of physical, biological, behavioral, and social science and engineering and whose experience and training is applicable to any one of the following areas: food and agriculture; health and population; nuclear nonproliferation; scientific exchange; forestry, natural resources and ecology; oceans and fisheries; communications; national security; and human resources and education, among others.

The Fellows will serve a 1-year appointment at a salary consistent with education level and experience, if possible, but not exceeding the GS-12 level (beginning at about $34,000). A security clearance process will be initiated after selection. The clearance must be obtained before a selectee can begin work in STATE or AID and the fellowship award is contingent upon the selectee obtaining this clearance.

Deadline for receipt of applications is 15 January 1989. For more information and application details write:

Science, Engineering, and Diplomacy Fellows Program
American Association for the Advancement of Science
1333 H Street, NW, Washington, DC 20005
Telephone: (202) 326-6600
BIOLOGY: Two tenure-track positions at ASSISTANT PROFESSOR rank in Berea College began September 1989. Ph.D. required, along with demonstrated commitment to undergraduate teaching and ability to involve students in research. Cell biology and molecular biology. Teach advanced courses in cell physiology, development, and genetics, and other courses for majors and nonmajors. Anatomy and physiology: Teach human anatomy and physiology; advanced physiology, and other courses for majors and nonmajors. In keeping with the College's Christian tradition and its emphasis on the worth and dignity of all persons, Berea encourages applications from women and members of minority groups. Submit letter of application, curriculum vitae, and supporting materials by 15 December 1988 to: Dr. Ralph Thompson, Biology Department, Berea College, Berea, KY 40404.

CELLULAR NEUROPHYSIOLOGIST/ANIMAL PHYSIOLOGIST.-The Department of Biology at Bryn Mawr College has a tenure-track opening for a highly qualified young investigator having an active interest in the nervous system of invertebrates and vertebrates. The position is available September 1989. We seek a person with expertise in the molecular and cellular basis of neuronal function, ideally with training in the field of development. The successful candidate will be expected to establish a funded research program and to participate in the undergraduate and graduate teaching programs of the department and of an anticipated new Interdepartmental Program in Biological and Behavioral Sciences. Applications, including curriculum vitae, statement of research interests, and names of three referees, should be sent to: Dr. Paul Grobstein, Department of Biology, Bryn Mawr College, Bryn Mawr, PA 19010. Affirmative Action/Equal Opportunity Employer.

DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE-The College of Medicine, Albert B. Chandler Medical Center, of the University of Kentucky is searching for an individual who is strongly committed to academic excellence to provide professional and academic leadership for the educational and research programs of the Department of Pharmacology. The department has a long tradition of excellence in research and education, with particular emphasis in neuropharmacology. The University is committed to excellence and has developed Commonwealth Centers of Excellence in related areas of science that enhance the academic environment. Please reply with curriculum vitae and a list of at least three references to: Thomas L. Roszman, Ph.D., Chairman Search Committee for Chair for Pharmacology Department of Microbiology and Immunology University of Kentucky College of Medicine Lexington, KY 40536-0084

CHAIRMAN/CHAIRWOMAN DEPARTMENT OF BIOLOGICAL SCIENCES FLORIDA ATLANTIC UNIVERSITY-The Florida Atlantic University Department of Biological Sciences invites nominations and applications for the position of Chairman/Chairwoman. Candidates should have a distinguished record of achievement in research, a commitment to excellence in teaching, training in administration, and an interest in leading a department of 16 faculty members through a development of a Ph.D. program. The department currently offers Baccalaureate and master's level degrees. The successful applicant will be expected to maintain an active research program and teach at both the graduate and undergraduate levels. Nominations, inquiries, and applications (to include curriculum vitae, a description of research activities and administrative experience, and the names of three references) should be sent to: Sheldon Dobkin, Chairman, Department of Biological Sciences, Florida Atlantic University, Boca Raton, FL 33431. Applications should be received by 15 January 1989. Florida Atlantic University is an Affirmative Action/Equal Opportunity Employer.

All tracks in the College of Biological Sciences are expanding their programs. Teaching and research responsibilities include both basic and applied studies at the undergraduate and postgraduate levels. These positions will be funded initially by an grant from the Howard Hughes Medical Institute, and include research support on a competitive basis. We are seeking individuals with demonstrated excellence in both teaching and research, as well as a strong commitment to liberal arts education. In keeping with the College's Christian tradition and its emphasis on the worth and dignity of all persons, Berea College encourages applications from women and members of minority groups. Submit letter of application, curriculum vitae, and supporting materials by 15 December 1988 to: Dr. Ralph Thompson, Biology Department, Berea College, Berea, KY 40404.

DEPARTMENT OF BIOLOGY THE JOHNS HOPKINS UNIVERSITY-The Department of Biology invites nominations and applications for the position of CHAIRMAN of the Department. Qualifications: Ph.D. or equivalent. The candidate should be a well-established investigator with demonstrated leadership and administrative experience. The Department of Biology offers a broad program of undergraduate, graduate and postgraduate study in the Biological Sciences including: Biochemistry and biophysical chemistry, cell biology, developmental biology and genetics. Applications must be postmarked not later than 15 December 1988. Résumé to: Dr. William F. Harrington Chairman, Search Committee The Department of Biology The Johns Hopkins Medical Institutions Baltimore, MD 21218 The Johns Hopkins University is an Equal Opportunity/ Affirmative Action Employer.

GENELABS INCORPORATED Molecular Biologist Genelabs is focusing on the development of novel medical therapeutics and diagnostics. Performance and pioneering technology are what set us apart. We have attracted outstanding and committed to basic research, collaborative work with academic laboratories and a team approach to solving human health care problems. We presently have an opening for a PhD with 2-3 years experience in molecular biology and a solid background in E. coli genetics. Preference will be given to candidates with experience in prokaryotic/ eukaryotic expression systems. You will be coordinating efforts in expression of heterologous proteins for both research and production as well as interacting with principal investigators and project leaders who will benefit from your expertise. Our work environment is exceptional in our beautifully expanded facilities in the Seaport Centre located on the San Francisco Peninsula. Please forward CV and names of 3 references in confidence to: GENELABS INCORPORATED, 505 Penobscot Drive, Redwood City, CA 94063. Attn: Human Resources. We are an Equal Opportunity Employer.
RESEARCH VIROLOGIST
MS Level

Burroughs Wellcome Co., a recognized leader among research-based pharmaceutical companies, has the following challenging opportunity available.

The Division of Virology has an immediate opening for a Research Scientist 1 to provide basic support for the virus research laboratory in the following areas: biochemical virology research aimed at elucidating the mechanism of action of antiviral compounds; basic molecular research efforts directed at identifying potential targets for antiviral chemotherapy; defining the nature of mutation in drug-resistant clinical isolates.

To qualify, your background must include the following: MS in microbiology, biochemistry, or related field OR a bachelor’s degree in an area as above, with three years’ experience in the microbiological field; one year recombinant DNA experience; one year basic cell culture experience. Experience in the following is preferred:

- Virus cultivation/purification methodology
- Nucleic acid and protein biochemistry

Burroughs Wellcome Co. offers the best overall benefits program in the industry including top pension, health, dental, and savings plans as well as a competitive salary. The Research Triangle Park area offers an excellent environment for living, recreation, cultural activities and academics.

Individuals interested in career growth in the pharmaceutical industry should send a resume by Nov. 28, 1988, to: Recruiting and Staffing Administrator, Burroughs Wellcome Co., P.O. Box 60579-4, 3030 Cornwallis Rd., Research Triangle Park, NC 27709.

Wellcome
An Equal Opportunity Employer
The University of Miami is seeking a highly qualified individual as chairperson of the Department of Radiology. The position is located in Miami, Florida. This position is open to all qualified candidates. The University of Miami is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

The Department of Radiology and Biomedical Sciences offers a wide range of research opportunities and is committed to providing a supportive and inclusive environment for students and faculty. The successful candidate will be expected to contribute to the department's academic program and to supervise graduate students and participate in the teaching program. The appointment can be made jointly with the Department of Pediatrics if appropriate. Submit curriculum vitae, statement of research, and three letters of recommendation to:

Richard A. Spritz, Chairman
Medical Genetics Search Committee
Laboratory of Genetics
445 Henry Mall
Madison, WI 53706

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

DARTMOUTH COLLEGE FACULTY POSITIONS

Thayer School of Engineering is expanding and is seeking new faculty in the following areas: Electrooptics, materials science/solid state physics, mechanical engineering, and materials science. These positions require strong research emphasis in human or mammalian genetics with potential human applications. Successful candidates will be expected to teach graduate courses, supervise graduate students, and participate in the teaching program. The appointment can be made jointly with the Department of Biomedical Engineering if appropriate. Submit curriculum vitae, statement of teaching and research, and three letters of recommendation to:

Dartmouth College
307 Collis Center
Hanover, NH 03755

The University of California is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.
CANCER PREVENTION FELLOWSHIP PROGRAM (CPFP)

The DIVISION OF CANCER PREVENTION AND CONTROL (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The primary purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control research. The program provides for: participation in the DCPC Cancer Control Academic Program (a formal four-month course in cancer prevention and control); 20 months at NC working directly with individual preceptors on ongoing cancer prevention and control projects; and, one year at a DCPC-approved cancer control program or State Health Department (may be optional). Funding permitting, up to 10 Fellows will be accepted for up to three years of training, beginning August 27, 1989.

APPLICANTS MUST (BY THE DEADLINE):
1. Possess an M.D. or D.O. degree from a U.S., territorial, or Canadian medical school OR foreign medical graduates must have current ECFMG/FMGEMS certification and have completed one year residency in a training program approved by the Accreditation Council for Graduate Medical Education OR-- Possess other accredited U.S., territorial, or Canadian doctoral degree (Ph.D., Dr. P.H., D.D.S., etc.) in a discipline related to cancer prevention and control research (biomedical, medical, nutritional, public health or behavioral sciences). Foreign doctoral graduates must provide documented evidence that the foreign education is comparable to doctoral education received in accredited institutions noted above;
2. Possess U.S. citizenship or be a resident alien eligible for citizenship within four years;
3. Complete and return the application packet by the deadline (including arranging for official academic transcripts and four current, original letters of references to be sent directly by the academic institutions and referees to the CPFP Coordinator).

For questions concerning the program’s scientific or administrative aspects, please contact Dr. Peter Greenwald or Mrs. Barbara Redding at (301) 496-8640. Application packets may be obtained by sending a POSTCARD with your name and home address to CPFP Coordinator, NIEHS/DCPC/CCAB, EPS Terrace Level, 301 Building, Bethesda, MD 20892. Please do not send any material until after you have read the instructions in the application packet.

DEADLINE FOR RECEIPT OF APPLICATIONS: JANUARY 11, 1989

NIH is an Equal Opportunity Employer

DEVELOPMENTAL BIOLOGY AND PLANT TRANSFORMATION

The Biotechnology Division of Du Pont’s Agricultural Products Department is seeking an individual with training and experience in plant developmental biology and transformation technology. The successful candidate should be able to apply an understanding of plant anatomy, development, and molecular genetics in order to achieve efficient gene transfer in a number of crop species. The position also requires the ability to collaborate with a group of molecular biologists, biochemists, and cell biologists in the creation and analysis of novel plant gene expression systems. Candidates should have a PhD. with post-doctoral experience, or an MS with a minimum of five years experience in the areas described.

At Du Pont you’ll find a stimulating scientific environment in a modern research facility located near Wilmington, DE. Our Mid-Atlantic location offers a wide range of academic, cultural, arts, and recreational activities. We provide excellent compensation, benefits, and relocation assistance. Qualified candidates should send curriculum vitae with three letters of reference to: Dr. Richard Broglio, c/o Employee Relations Department, Du Pont Company, Room X-51433, Wilmington, DE 19898
The Division of Biological Sciences of the College of Arts and Science invites applications and nominations for Professor and Director. Candidates must have an outstanding research program, a record of scholarly achievement, strong leadership qualities, and commitment to excellence in undergraduate and graduate education. Qualified women and members of minority groups are urged to apply.

**STRENGTHS**: This multidisciplinary department of 35 faculty has strong extramural research programs in cell and molecular biology, genetics, neurobiology and behavior, plant sciences, reproductive biology, developmental biology, evolution and ecology. The Columbia campus has 23,000 students in 14 colleges including Medicine, Agriculture, Veterinary Medicine and Engineering. Our faculty are involved in collaborative research with each of these professional schools, and they are active participants in campus-wide programs in Molecular Biology and Food for the 21st Century. Service facilities in the Department include research greenhouses, an electron microscopy lab and new animal research facilities. Campus services include oligonucleotide synthesis, immunobiology, protein sequencing, HPLC, NMR, GC-mass spectrometry, computer services, and a research nuclear reactor.

**CHALLENGES**: To build on the momentum of recent program development, lead recruitment of at least eight new faculty, and expand relationships with other campus programs in biological and biotechnological research.

Nominations and applications in response to this announcement should be received no later than January 15, 1989 for a preferred fall 1989 or January, 1990 appointment. Requests for information, letters of nomination, or applications including C.V. and names and telephone numbers of four or more references should be sent to:

Dr. H. Carl Gerhardt, Search Committee Chair
Division of Biological Sciences, Tucker Hall
University of Missouri
Columbia, MO 65211

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

---

## Assistant or Associate Scientist
### Marine Meteorologist

Boundary layer Marine Meteorologist to work with a group spanning ocean engineering and physical oceanography, addressing problems of air-sea interactions. Ph.D. or equivalent in atmospheric or meteorological science and experience in field observations of lower atmosphere processes including momentum and buoyancy fluxes, aerosols, gas exchange, evaporation and/or structure in the flow field.

Apply to:

Personnel Manager
Box 54P

WOODS HOLE
OCEANOGRAPHIC INSTITUTION

1930

Woods Hole, MA 02543
An equal opportunity employer M/F/H/V

---

### The Growth Factor Research Department of Merck Research Laboratories has two positions open in the following areas:

**SENIOR SCIENTIST** - Membrane Protein Purification and Characterization. A Ph.D biochemist with one or more years of postdoctoral experience is being sought to establish a research program centered on the purification and characterization of membrane bound proteins. Expertise in protein purification and characterization is essential and specific experience in the purification of membrane bound proteins is desirable.

**JUNIOR SCIENTIST** - Molecular Biology of Growth Factor Expression. An opportunity is available for a BS/MS molecular biologist to participate in research on the transcriptional and translational control of protein growth factor expression. Candidates with two or more years research experience including expertise in basic recombinant DNA techniques are encouraged to apply.

Merck Sharp and Dohme Research Laboratories are located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. Interested candidates should submit their resume with the name of three references and salary requirements to Ms. Jacqueline A. Eiermann, Merck & Co. Inc. P.O. Box 2000, Rahway, New Jersey 07065.

---

### Staff Researcher

Syntex, an international leader in pharmaceutical and health care industries, has an immediate opening in our Palo Alto research headquarters located on the San Francisco Peninsula.

The individual chosen will have responsibility for expanding the area of thrombosis/hemostasis. Expertise and familiarity with the modern science of both cellular and soluble contributions to hemostasis are essential. The successful candidate will be able to develop agents useful for preventing thrombosis, enhancing fibrinolysis, and modifying coagulation. Requires a PhD plus 3 years' experience in fields related to position. Post-doctorate work is preferred.

Syntex offers a competitive compensation and benefits package in campus-like surroundings. For immediate consideration, please send your resume, to: Syntex, Professional Staffing, Dept. KH/S21, 3401 Hillview Ave., Palo Alto, CA 94304. We are an equal opportunity employer.
**MOLECULAR BIOLOGIST**

(Research Fellow)

A$30,100–A$36,937

DIVISION OF PLANT INDUSTRY

BLACK MOUNTAIN, CANBERRA, ACT AUSTRALIA

**GENERAL:** The Division of Plant Industry has the broad aim of increasing the efficiency of agricultural production through research in the plant sciences, including molecular biology, biochemistry, physiology, plant nutrition and microbiology, and for the development of new crops and agricultural management practices. It has its Headquarters in Canberra with wheat and cotton research units in Sydney and Narrabri, respectively. The strong microbiology group has its principal interests in the study and management of nitrogen fixation and in the breakdown of crop residues in soil.

**THE JOB:** The appointee will be responsible for the cloning, manipulation and introduction of cellulase genes into a variety of soil bacteria and study of the cellulolytic activity of bacterial derivatives under containment conditions in both the presence and absence of plants. The appointee will be based in the Canberra laboratories.

**THE PERSON:** Applicants should have a PhD or equivalent qualification in microbiology or microbial genetics, with experience in molecular biology. Experience in soil microbiology and/or host-plant interactions is desirable.

**CONDITIONS:** A term of three years from 1 January 1989 with Australian Government Superannuation benefits available. The position is supported by the Australian Wheat Research Council.

**MORE INFORMATION:** Prospective applicants are invited to telephone either Dr J.M. Watson 61 62 46 5780, Dr D.M. Halsall 61 62 46 5391 or Dr A.H. Gibson 61 62 46 5088 for further information. A copy of the detailed duty statement and selection criteria may be obtained by telephoning 61 62 46 5206.

**APPLICATIONS:** Applications should be submitted by 4 weeks from date of publication and quote reference number M8918. 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 to professional referees, and address their applications to:

The Chief
CSIRO Division of Plant Industry
GPO Box 1600
Canberra, ACT 2601
AUSTRALIA

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

---

**BioHybrid Technologies, Inc.**

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

**Research Scientist**

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

BioHybrid Technologies, Inc.

Attn: Personnel

910 Turnpike Road

Shrewsbury, MA 01545

---

**LIFECODES CORPORATION**

**VIRAL VECTOR DELIVERY SYSTEMS/GROUP LEADER**

Lifecodes Corporation, a leader in the use of DNA probes for human genetic diagnostics & therapeutics, is searching for a dynamic individual to build a strong innovative group concerned with the delivery of DNA to cells via viral vectors. Qualified applicants will have a Ph.D. and postdoctoral experience, which includes extensive work with viral delivery systems.

We also have openings for BS/MS level scientists experienced with tissue culture and/or recombinant DNA. Lifecodes, a wholly-owned subsidiary of Quantum Chemical Corporation, is located just 30 minutes north of Manhattan in a campus-like park.

We offer an extremely attractive salary/benefits package, including a complete medical plan, 401-K savings and pension plans, and a stock bonus plan.

To apply, send your C.V. and names and telephone numbers of three references, to:

Dr. Jeffrey Glassberg

LIFECODES CORPORATION

Saw Mill River Road

Valhalla, NY 10595

---

Contact us for more information.
FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry at Iowa State University invites applications for a junior-track faculty position at the assistant professor level. This position is designed to help expand our biochemistry curriculum. Teaching participation in the biochemistry course and in one or more other courses including general biology, biochemistry, microbiology, and genetics. The position requires demonstrated aptitude for creative research and for teaching, and a commitment to excel in both. Applicants should be expected to establish a strong research program during the initial stages of their independent scientific careers. Candidates should have a Ph.D. or equivalent degree and relevant postdoctoral experience. Applications with evidence of research potential will be considered. The University is committed to diversity and encourages applications from women and minorities.

FACULTY POSITION IN MOLECULAR GENETICS

The Department of Biochemistry at Ohio State University invites applications for a junior-track faculty position at the assistant professor level. This position is designed to help expand our biochemistry curriculum. Teaching participation in the biochemistry course and in one or more other courses including general biology, biochemistry, microbiology, and genetics. The position requires demonstrated aptitude for creative research and for teaching, and a commitment to excel in both. Applicants should be expected to establish a strong research program during the initial stages of their independent scientific careers. Candidates should have a Ph.D. or equivalent degree and relevant postdoctoral experience. Applications with evidence of research potential will be considered. The University is committed to diversity and encourages applications from women and minorities.

FACULTY POSITION IN MOLECULAR BIOLOGY

The Department of Biochemistry at the University of California, San Diego, invites applications for a junior-track faculty position at the assistant professor level. This position is designed to help expand our biochemistry curriculum. Teaching participation in the biochemistry course and in one or more other courses including general biology, biochemistry, microbiology, and genetics. The position requires demonstrated aptitude for creative research and for teaching, and a commitment to excel in both. Applicants should be expected to establish a strong research program during the initial stages of their independent scientific careers. Candidates should have a Ph.D. or equivalent degree and relevant postdoctoral experience. Applications with evidence of research potential will be considered. The University is committed to diversity and encourages applications from women and minorities.

FACULTY POSITION IN MOLECULAR GENETICS

The Department of Biochemistry at the University of California, San Diego, invites applications for a junior-track faculty position at the assistant professor level. This position is designed to help expand our biochemistry curriculum. Teaching participation in the biochemistry course and in one or more other courses including general biology, biochemistry, microbiology, and genetics. The position requires demonstrated aptitude for creative research and for teaching, and a commitment to excel in both. Applicants should be expected to establish a strong research program during the initial stages of their independent scientific careers. Candidates should have a Ph.D. or equivalent degree and relevant postdoctoral experience. Applications with evidence of research potential will be considered. The University is committed to diversity and encourages applications from women and minorities.

FACULTY POSITION IN MOLECULAR BIOLOGY

The Department of Biochemistry at the University of California, San Diego, invites applications for a junior-track faculty position at the assistant professor level. This position is designed to help expand our biochemistry curriculum. Teaching participation in the biochemistry course and in one or more other courses including general biology, biochemistry, microbiology, and genetics. The position requires demonstrated aptitude for creative research and for teaching, and a commitment to excel in both. Applicants should be expected to establish a strong research program during the initial stages of their independent scientific careers. Candidates should have a Ph.D. or equivalent degree and relevant postdoctoral experience. Applications with evidence of research potential will be considered. The University is committed to diversity and encourages applications from women and minorities.
MICHIGAN STATE UNIVERSITY

THREE TENURE-TRACK PROFESSORIAL POSITIONS IN CROP AND SOIL SCIENCES.

ASSISTANT, Plant Breeding and Genetics. Research focus will be in the development of improved varieties of Eastern wheats. Plant breeding initiatives include milling and baking quality, winter hardiness and resistance to diseases and insects using classical and molecular approaches. Teaching includes plant breeding and genetics at the undergraduate and/or graduate levels. Ph.D. in plant sciences with emphasis on plant breeding and genetics.

ASSISTANT/ASSOCIATE, Plant Breeding and Genetics. Research using classical and molecular approaches leading to the production of super hardy varieties of edible dry beans meeting Michigan's production and marketing demands. Academic duties include graduate student supervision and courses in plant breeding — genetics or bean production. Ph.D. in plant sciences or closely related fields.

ASSISTANT, Forage Physiology. Research will focus on physiological problems relevant to forage production and quality. Teaching will include two courses in forage production and management. Ph.D. in plant physiology or closely related field and experience in current agricultural production required.

Send resume, transcripts and three letters of recommendation to: Eldor A. Paul, Chairperson, Department of Crop and Soil Sciences, Michigan State University, E. Lansing, MI 48824-1325.

SR. INFORMATION SCIENTIST (PhD)

We're The R.W. Johnson Pharmaceutical Research Institute, a member of the Johnson & Johnson Family of Companies. Our strategy is to maintain a fast-growing pharmaceutical business by continuing to develop products of the highest quality.

We currently have a significant career opportunity for an individual to become part of our scientific team. To qualify, you should be a successful biomedical scientist interested in pharmaceutical development with a Ph.D. in Biomedical Research or related discipline and a solid record of research and publication. Excellent verbal and written communication skills as well as good interpersonal skills are essential. You will be responsible for gathering and synthesizing data for submission to the FDA plus preparing reports on scientific issues pertinent to our ongoing and future projects.

The position supports our important research endeavors and affords professional growth. We offer a competitive salary and the comprehensive benefits of a Johnson & Johnson Company as well as a convenient suburban Philadelphia location. For immediate confidential consideration, please submit curriculum vitae and salary requirements to: Ms. Amy Rothwell, Dept. SC-1028, McNeil Pharmaceutical, Spring House, PA 19477.

McNEIL PHARMACEUTICAL
A Johnson & Johnson Company

An Equal Opportunity Employer

HUMAN MOLECULAR BIOLOGIST

We're a 934-bed voluntary teaching hospital offering an excellent opportunity for a Human Molecular Biologist to implement a DNA Diagnosis Laboratory for various inherited diseases.

The candidate should have a Ph.D. and some experience in human DNA technology. There will be opportunity for independent research and faculty appointment at The Mount Sinai School of Medicine according to credentials.

Interested applicants should submit their resume to: B.B., Human Resources Department, Beth Israel Medical Center, First Avenue at East 16th Street, New York, NY 10003.

BETH ISRAEL MEDICAL CENTER
An Equal Opportunity Employer Committed to a Smoke-Free Environment

HUMAN GENOME CENTER

The Human Genome Center at Lawrence Berkeley Laboratory, University of California, has a variety of job opportunities for individuals interested in mapping portions of the human genome, pilot projects in sequencing and analyzing interesting regions of the genome, or development of new DNA handling, mapping and sequencing methods, especially those suitable for automation. The ideal candidate will have experience in a variety of DNA techniques and a specific interest in applying these as part of a long term effort to explore the genome.

A number of positions are available for Technicians and Postdoctoral Research Associates. There are also scientific staff positions for more experienced individuals with a Ph.D. in Molecular Biology, Genetics or related fields and demonstrated ability to conduct independent research.

When responding, please note position of interest and job number: Technicians, Job A/4866 & A/4867; Postdoctoral Research Associates, Job A/4868; Staff Scientist II, Job A/4863.

Please send C.V. and names of references to: Dr. Charles R. Cantor, Director, C/O Ron Lowder, LBL Employment, Bldg. 90-1042, #1 Cyclotron Road, Berkeley, CA 94720; or call Employment Office (415) 486-4226 for an application and/or further information. An Equal Opportunity Employer, M/F/H.
RESEARCH ASSOCIATE PHARMACOLOGY

Amgen, an industry leader in the development of human health care products through applied biotechnology, has an immediate opportunity for a BS/MS scientist to join an innovative group conducting IN VIVO pharmacologic studies of bioactive proteins and peptides.

Qualified candidates for this position must have a BS or MS degree in Pharmacology or a related discipline with two or more years’ experience in immuno-pharmacology, tumor biology or small animal surgery. Knowledge of statistics and use of micro computers for the organization and analysis of data are highly desirable.

Amgen offers a challenging and exciting research environment as well as an attractive location northwest of Los Angeles. Amgen also offers an excellent compensation and benefits package.

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

Recruitment, Dept. #350
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

State University of New York at Buffalo
BIOLOGICAL SCIENCES—FACULTY OPENINGS

TWO ASSISTANT PROFESSORSHIPS: We anticipate that we will be hiring two faculty for Fall 1989. Those appointed will be individuals whose research program is in the forefront of their field and who will be able to interact with other members of our faculty.

One position in ECOLOGY/EVOLUTIONARY BIOLOGY is open to candidates with all specialties, however we are particularly interested in the area of aquatic and plant population ecology.

The second position will be open to candidates who will be expected to be utilizing modern genetic and molecular approaches to the study of one of the following areas: (a) the immune system at the cellular level, (b) the development of an organism which provides a model system for studies in development, or (c) regulation in an organism to provide a model for studies of regulation at the level of gene transcription.

Successful candidates will be expected to have completed at least two to three years of post-doctoral experience, demonstrate experience in a productive research program, be able to describe in detail plans for future research activities, and show promise for establishing a fundable independent research program.

Candidates will also be expected to demonstrate above average teaching ability for both undergraduate and graduate teaching. Salary will be nationally competitive; excellent laboratory space and equipment available.

To apply, candidates must submit a curriculum vitae, including a statement of research background and teaching experience, and at least three letters of reference, to Dr. Darrell Doyle, Chairman, Department of Biological Sciences, 10th Cooke Hall, State University of New York at Buffalo, Buffalo, NY 14260. Applications will be received until January 13, 1989, or until the position is filled thereafter.

State University of New York is an Affirmative Action/Equal Opportunity Employer.

NEW ENGLAND BIOLABS

Postdoctoral Positions

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

Nucleic Acid Enzymologist—To study endonuclease/DNA interactions. Candidate should have training in biochemistry/enzymology and/or molecular biology. Experience with overproduction and mutagenesis of proteins in bacterial systems would be helpful.

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

Immunologist/Parasitologist—To study the cellular immune response to recombinant filarial antigens (Molecular Parasitology Division).

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

Candidates please submit curriculum vitae with three references to:

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

The University of Missouri is an Equal Opportunity Employer.

2 FACULTY POSITIONS
in Neurobiology
Division of Biological Sciences
University of Missouri-Columbia

The Division of Biological Sciences is continuing a multi-year effort to enhance an already strong research base. Seven young faculty have been hired in the past three years, including three in neurobiology. We are pleased to invite applications for two more tenure-track faculty appointments in neurobiology (Assistant or Associate Professor level) for the Fall, 1989.

Desirable areas of research include, but are not limited to: molecular neurobiology, cellular neurobiology, neurophysiology, developmental neurobiology and neuroethology. The positions include excellent start-up funds, new laboratory space and new animal facilities. Women and minorities are encouraged to apply.

Candidates should have a Ph.D., postdoctoral training, a demonstrated record of research accomplishment, and a commitment to undergraduate and graduate education. Curriculum vitae, a brief statement of research interests, and the names of three references should be sent to Dr. John David, Director, Division of Biological Sciences, University of Missouri, 105 Tucker Hall, Columbia, MO 65211. Applications will be accepted until December 15, 1988 or until suitable candidates are identified.

University of Missouri is an Equal Opportunity/Affirmative Action Employer.
Sogetal, Inc. is launching a vigorous program for the genetic engineering of cereals. We are inviting well qualified and experienced scientists in the areas of plant molecular biology and tissue culture to apply for positions which will be open in early 1989.

Sogetal, located in the San Francisco Bay Area, is a research center for ORSAN, the biosciences division of LAFARGE COPPEE. We have developed leading technology for the hybridization of small grains, and have an established program in cereal tissue culture.

We announce the following openings in our multidisciplinary program:

**Senior Plant Molecular Biologist**

The ideal candidate will have a PhD in a plant science with extensive hands on experience in molecular biology including vector design and construction as well as gene characterization. He/she should have excellent communication skills as well as supervisory experience.

**Plant Molecular Biologists**

(PhD, MS)

Ideal candidates will have a background in plant science with a detailed knowledge of regeneration and transformation methods in monocots.

Interested applicants please send curriculum vitae to:

Human Resources/GEC

Sogetal, Inc.

3876 Bay Center Place

Hayward, CA 94545

Equal opportunity employer
POSITIONS OPEN

FACULTY POSITIONS

The University of Chicago Department of molecular genetics and cell biology is seeking candidates for tenure-track appointments in the areas of cell biology, developmental biology, genetics, and virology. Candidates should have sufficient research experience to demonstrate both significant accomplishments and outstanding promise.

The selected candidates will be offered generous space in a modern facility and substantial equipment and start-up funding. Postdoctoral, professor, endowed chair, and distinguished professor appointments are available. Applications will be considered until 30 November 2018. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

GENETICIST FACULTY POSITION: A tenure-track position in the Department of Biology is available for August, 1989 at the assistant professor level. The successful candidate must have postdoctoral research experience and must be able to attract extramural support for an independent research program in genetics; and alternatively teach an undergraduate genetics laboratory course and a specialty graduate course. Applications received by 15 December 1988 will be considered. Send complete curriculum vitae, statement of research, and names of at least three references to: Dr. W. Taylor, Department of Biology, The University of Chicago, 920 East 58th Street, Chicago, IL 60637. Deadline, 7 December 1988. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

BRANDEIS UNIVERSITY

GENETICS AND MOLECULAR BIOLOGY

The Rosenstiel Basic Medical Sciences Research Center and the Department of Biology seek a tenure-track assistant professor in the area of genetics and molecular biology. Candidates with research interests in the general area of the molecular basis of recombination, chromatin structure, DNA replication, and protein-mediated RNA interactions are especially encouraged to apply. Candidates at a more senior level may also be considered. Applicants should submit curriculum vitae including a description of research goals and should arrange for three letters of recommendation to be sent to: Genetics and Molecular Biology Search Committee, Rosenstiel Center, Brandeis University, Waltham, MA 02254-9110 by 10 November 1988. Brandeis University is an Equal Opportunity/Affirmative Action Employer.

INTERNATIONAL SCIENTIFIC NON-GOVERNMENTAL ORGANIZATION seeks person to be second in command of small secretariat located in Paris. Candidates must have scientific degree or equivalent, excellent command of English and French, and administrative and diplomatic capability. Applications may be sent to: Dr. Jean-Pierre Fatouros, Radiation Physics Division, 1200 E. 58th Street, Chicago, IL 60637. Deadline, 30 November 1988. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

MAGNETIC RESONANCE IMAGING/SPECTROSCOPY FACULTY POSITION. Research-oriented scientist with strong background in NMR to join a multidisciplinary, active group of scientists engaged in basic and clinical NMR imaging and in vivo spectroscopic research at Department of Radiology, University of Virginia. Applicants must demonstrate both broad NMR experience and a commitment to develop an extramural research program. Send complete curriculum vitae, statement of research, and names of at least three references by 21 November 1988 to: Aquatic Search Committee, Department of Biology, University of Alabama, Tuscaloosa, AL 35487. The University of Alabama is an Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST/FERMENTATION SAN DIEGO AREA

Calbiochem Corporation, an established manufacturer of fine chemicals located in La Jolla, CA, has positions for experienced Fermentation Microbiologists. Will direct, plan and execute development of a fermentation process including media growth conditions, optimization, strain improvement by selection, mutation, protoplast fusion and other methods of genetic manipulation. Scale-up of production. B.S., M.S., Ph.D. in microbiology or appropriate discipline plus 2 to 7 years of experience in fermentation development. Send resume: Manager Human Resources, Calbiochem Corporation, 19953 North Torrey Pines Road, La Jolla, CA 92037. Equal Opportunity Employer.


MICROBIOLOGY TWO POSITIONS. Anticipated tenure-track assistant professor, to teach microbial physiology starting fall 1989, and immunology vacancy, non-tenure-track assistant professor, 1 January 1989 to 15 June 1993. Both positions involve teaching upper division and graduate level courses plus introductory courses in microbiology or general biology. Research and outside research support expected. Review of applications begins 22 November 1988 and continues until filled. Application, curriculum vitae, the letter of recommendation to either: Physiology or Immunology Search, Division of Biological Sciences, University of Montana, Missoula, MT 59812. Affirmative Action/Equal Employment Opportunity.

MOLECULAR IMMUNOLOGIST POSTDOCTORAL POSITION

A postdoctoral position is open in the spring of 1989 for an outstanding individual with a strong background in molecular biology to join a group attempting to clone the gamma interferon gene of Mycobacterium avium. The candidate will be employed a cDNA library derived from a DTH-initiated T cell clone. Send curriculum vitae, statement of experience and interests, and three letters of reference to: Dr. Philip W. Askne, Department of Medicine, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

LIMNOLOGIST

The Aquatic Biology Program at the University of Alabama seeks a senior level limnologist with an international reputation in the area of fish and amphibian biology and Limnology. Research interests in the ecology and physiology of macrophytes and the role of detritus as a food source for fish are desired. Appointment will be made at the full professor level. Applicants should send a letter of interest, curriculum vitae, and addresses of three references by 21 November 1988 to: Aquatic Search Committee, Department of Biology, University of Alabama, Tuscaloosa, AL 35487. The University of Alabama is an Equal Opportunity/Affirmative Action Employer.

M.D./PH.D. PROGRAM

University of Medicine and Dentistry of New Jersey
Robert Wood Johnson Medical School and
Rutgers University-Graduate School
University of Medicine and Dentistry of New Jersey
Graduate School of Biomedical Sciences

The University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School and Rutgers University-Graduate School/University of Medicine and Dentistry of New Jersey-Graduate School of Biomedical Sciences offer a combined M.D./Ph.D. program. The stipends for students entering the program will be $6,500 per year plus tuition for the first and second years of medical school. Beginning in the third year, the Graduate School stipend will be $10,000 per year plus tuition. For the last 2 years of medical school, the stipend will be $8,000 per year plus tuition.

Students will be able to take their Ph.D. training in any of the following graduate programs: Biochemistry, Bioinformatics, Molecular Biology, Biomedical Engineering, Cell and Developmental Biology, Microbiology, Molecular Genetics & Microbiology, Pharmacology, Physiology & Neurobiology, Toxicology.

For further information and an application form, please contact the Graduate School of Biomedical Sciences,UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.

INFECTIOUS DISEASE DIAGNOSTIC PRODUCTS

Ph.D

Clinical Microbiologist

California

Ortho Diagnostic Systems, Inc., is a leader in the development and manufacture of medical diagnostics, reagents, immunological and related products. Located in Torrance, California location, just outside Santa Barbara, specializing in R&D, manufacture and marketing of infectious disease testing kits, has an excellent opportunity for a Ph.D in Clinical Microbiology to join our project team.

We are seeking a Ph.D in Microbiology or equivalent, and a minimum of 2 years experience in clinical virology, bacteriology and cell culture as well as current laboratory exposure.

Position involves conducting research and/or product development of non-isotopic rapid diagnostic assays.

As part of the world’s most diversified health care firm, we provide competitive salaries and superior benefits. Reply in confidence, with resume and salary history, to MARILEE MOY, Plant Personnel Manager, ORTHO DIAGNOSTIC SYSTEMS, INC., 1125 MARK AVE., CARPINTERIA, CA 93013-9990.

We are an Affirmative Action Equal Opportunity Employer M/F/H/V

A Unique Formula For Career Success
GENERAL
The International Livestock Centre for Africa (ILCA), with headquarters in Addis Ababa, Ethiopia is one of the 13 international agricultural research organizations supported by the Consultative Group on International Agricultural Research (CGIAR). The Centre has research activities throughout sub-Saharan Africa and regional offices in Kenya, Nigeria, Niger and Mali.

ILCA’s major activities are research, training and information, and its goal is to achieve measurable and sustainable increases in livestock output in sub-Saharan Africa.

With purpose-built offices and research facilities on a large landscaped site close to Addis Ababa’s international airport, the Centre’s headquarters provide a pleasant working environment and sports and leisure facilities. The city, which enjoys pleasant weather throughout the year, has a large, diverse expatriate community and diplomatic missions from more than 75 nations. It is also the seat of the Organization of African Unity (OAU) and the United Nations Economic Commission for Africa (UNECA). There are several international schools covering American, British, French, German and Italian systems, among others.

POSITION
Experienced Research Scientist in Forage Agronomy, based at ILCA HQ, Addis Ababa, to take a leadership role in the research of the Division of Plant Science. The research will be focussed on the development of Animal Feed Resources, principally in the application of improved forage resources to the predominantly mixed crop/livestock farming systems of sub-Saharan Africa, with a likely major focus on acid soil systems. This research will be carried out in the multidisciplinary framework of the Animal Feed Resources Thrust which integrates these activities with those of Soil and Plant Nutrition, Animal Nutrition and Policy/Economics. The thrust is closely coordinated with other thrust’s activities in the main livestock output commodities of milk, meat and traction/power.

The scientist will be expected to carry out research more widely in Africa in partnership with National Scientists through the developing Feed Resources Networks for which travel will be required.

QUALIFICATIONS
– PhD/MSc Degree in Agronomy.
– Substantial experience in Forage Agronomy Research and of working in developing countries.
– English essential and working knowledge of French desirable.
– Proven ability to work in interdisciplinary and intercultural scientific teams desirable.

Salary and related benefits are paid in US$ and will be in line with comparable international organizations. Initial salary will be determined by qualifications and experience.

Applications should send current curriculum vitae, recent salary history, names and addresses of three professional referees and photocopies of supporting documents (not returnable) before November 4, 1988 in confidence to the Personnel Manager, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
MILLSaps College invites applications for an opening as assistant/associate professor of molecular biology, Ph.D., beginning September 1989. The successful candidate will have expertise in teaching cell biology, molecular genetics, and to participate in teaching general introductory biology courses and in research at the tenure-track position. Teaching experience is desirable. Millsaps College seeks faculty members with a strong commitment to the liberal arts and sciences and undergraduate teaching, and encourages research through a strong program of faculty development. Send letters of application, résumé, transcripts, and three letters of recommendation to Dr. Sue McKeown, Chairman, Department of Biology, Millsaps College, Jackson, MS 39210. To ensure consideration, application materials should be received by 1 December 1988. Women and minorities are encouraged to apply.

THE BLOOMFIELD CENTRE FOR RESEARCH IN AGING AT LADY DAVIS INSTITUTE FOR MEDICAL RESEARCH IN ASSOCIATION WITH McQUEEN UNIVERSITY

Molecular Biology/ Biochemistry—Two assistant professor positions are available in the newly developed Bloomfield Centre for Research in Aging. Applications are sought from individuals working on endocrinology, molecular and chemical levels; the specific research area is flexible within the general area of control mechanisms for development, growth, and aging. Candidates interested in aging-related disease issues such as Alzheimer's disease and cancer are also encouraged. The positions carry with them appointments in the Department of Medicine at McGill University, along with generous equipment, salary, and initial salary funding. Successful candidates must have demonstrated research potential through postdoctoral experience or recent publications, and are expected to maintain a vigorous research program through external funding. Applicants should send their curriculum vitae, copies of research goals, and three letters of recommendation to: Dr. Eugene Bloom, Director, The Bloomfield Centre for Research in Aging, Lady Davis Institute/McGill University, 3755, Chemin Côte-St. Catherine, Montreal, Quebec H3T 1E2, Canada. In accordance with Canadian immigration regulations, applications from Canadian citizens and landed immigrants will be considered first.

MOLECULAR DEVELOPMENTAL BIOLOGIST with excellent scientific credentials to develop independent program at appropriate professorial rank from assistant to associate professor or untenured. Submit curriculum vitae, a short statement of future plans and direct three letters of recommendation to be sent to: Dr. Gerald Litwack, Deputy Director, Fels Institute for Neural and Molecular Sciences, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140. An Equal Opportunity Employer.

NEUROCIENTIST

A basic research position in neurochemistry, neuroimmunology, neuropharmacology, or molecular neurobiology, is available at the R.S. Dow Neurological Sciences Institute of Good Samaritan Hospital and Medical Center. Persons with interests in neural regeneration, plasticity, development, transmitter or receptor function are especially encouraged to apply. Opportunities exist for interaction with basic research programs related to CNS function and with active clinical programs in neurosurgery and neurology. M.D. or Ph.D. and postdoctoral experience required. Substantial startup funds from the “Cooper Foundation for Neurologic Research and Education” are available, with the expectation that continued funding will be sought. The position is at the assistant professor level and the appointment will depend upon experience. Please submit résumé and names of three references to 15 December 1989 to: Robert S. Dow, M.D./Ph.D., Chairman, Irving Sinsky Search Committee, Good Samaritan Hospital and Medical Center, 1015 NW 22nd Avenue, Portland, OR 97210. Good Samaritan Hospital and Medical Center is an Equal Opportunity Employer.

PLANT SYSTEMATICS

The Rancho Santa Ana Botanic Garden invites applications for a staff position in systematic and evolutionary botany, available 1 September 1989. Individuals specializing in cytogenetics are particularly encouraged to apply. The successful candidate will be expected to maintain an independent research program and to participate in the graduate program in Botany. Applicants representing various levels of experience are welcome, carrying with assistant professor or equivalent levels, and if hired, will be appointed to the faculty of the Claremont Graduate School. Send curriculum vitae, statement of research interests, and three letters of reference by 15 December 1989 to: Search Committee, Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, CA 91711.

POSTDOCTORAL ASSOCIATE—Funded opportunity in ongoing research utilizing site-directed mutants to study the catalytic mechanism and cellular function of the carbonic anhydrases. Recent Ph.D. with experience in recombinant DNA techniques or enzyme kinetics preferred. Please send curriculum vitae and the names of three references to: Dr. David Silverman and Philip Latips, J-267 Medical Science Center, University of Florida, Gainesville, FL 32610.
New Division of Cellular and Molecular Sciences

Glaxo have just released results that show that in four years the Company has risen from seventeenth to second position in the world ranking of ethical Pharmaceutical Companies, as a result of its success in research and innovation. To further this success, Glaxo Group Research Limited has now established a new Division of Cellular and Molecular Sciences to optimise its drug hunting programmes for the therapy of important human diseases. As a result of this re-organisation, major new research management opportunities have been created which will play a key role in the development of the drug hunting programmes of the new Division.

Head, Department of Cellular Science

Reporting to the Divisional Director, you will formulate and implement research programmes to identify potential drugs for use in important diseases such as Rheumatoid Arthritis, Inflammation, psoriasis, atheroma, thrombosis and cancer. To be considered for this excellent career opportunity, you will preferably have managed a large bio-medical research team within the drug industry. Your primary research skills will have been developed in the cellular aspects of Cell Biology, but you will have a thorough appreciation of the importance of the application of modern molecular techniques to the study of intact cell. The new department will have about 70 research scientists and the position offers unequalled opportunities for the application of research management and team building skills.

Reference G88244

Divisional Screening Manager

Your responsibility will be to establish and manage an interactive screening group, reporting to the Divisional Director. Your overall objective will be to develop screening programmes through which novel chemical leads may be identified. A key requirement will be to integrate these activities with other aspects of our drug discovery programme.

You should be a flexible and responsive manager with good team building skills, together with experience in managing a screening function or similar activity.

Reference G88245

Research Managers

We wish to appoint specialist Research Managers to direct the activities of Cellular Research Groups in the above disease areas. These managers will report to the Head of the Department of Cellular Science and will be responsible for teams of 10 to 20 scientists. You must be able to demonstrate a successful track record in research in one of these areas, and possess proven managerial skills.

Glaxo Group Research has an excellent skill base from on-going research in these important disease areas, and so the new posts offer significant opportunities for the management of innovation.

Reference G88246

The remuneration packages offered fully reflect the seniority of these positions and include comprehensive relocation assistance.

Full job descriptions for the above posts can be obtained by phoning Ted Smith, Senior Personnel Officer, on 01-422 3434 extension 2934 or by writing to him at Glaxo Group Research, Greenford Road, Greenford, Middlesex UB6 0HE, quoting the relevant reference number.

Glaxo Group Research Ltd.
PHYSIOLOGICAL PLANT ECOLOGIST
The Department of Botany of the University of Florida invites applications for a tenure-track assistant professorship. The appointee will be expected to establish a vigorous research program and to teach introductory biology plus an advanced course. Submit curriculum vitae and description of research interests, and have letters from four referees sent to: Dr. William L. Stern, Search Committee Chairman, Department of Botany, University of Florida, Gainesville, Florida 32611 by 8 December 1988.

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

POSTDOCTORAL ASSOCIATE
Position available now for research on the behavioral pharmacology of opioid drugs in rodents and small mammals. Applicants should have a Ph.D. in pharmacology or a closely related field within 3 years of the Ph.D. in pharmacology or other basic medical science or in experimental psychology. Skills in stereo-tactic surgery and in the use of microcomputers is desirable. Send curriculum vitae and three references to: Stephen G. Holtzman, Ph.D., Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322.

Emory University is an Equal Employment Opportunity Employer.

POSTDOCTORAL ASSOCIATE to investigate regulatory changes in gene expression during moth eggshell formation, and their relationship to morphological evolution [e.g., see PNAS 84, 479-483, (1987)]. Research experience with recombinant DNA technology helpful. Send curriculum vitae and names and addresses of 2 to 3 references to: Dr. Jerome Regier, Center for Agricultural Biotechnology, c/o Zoology Department, University of Maryland, College Park, MD 20742, telephone: 301-454-8356.

POSTDOCTORAL ASSOCIATE IN PLANT MOLECULAR GENETICS: A position is available immediately for a Ph.D. in molecular/cellular and biochemical aspects of plant development and/or genetics. A solid understanding of molecular genetics is desired. Applications including curriculum vitae, a summary of research interests and experience, and names of three references should be forwarded to: Dr. Martin M. Sacher, Department of Biology, Washington University, St. Louis, MO 63130.

POSTDOCTORAL FELLOW: Position available, with funding for more than 1 year, to study the functional and structural effects of DNA structural lesions on DNA processing enzymes involved in replication and repair. Background in chemistry and/or molecular biology preferred. Curriculum vitae and three references to: Dr. Peter Beauchamp, Ph.D., M.D. Department of Pediatrics and Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Yale University is an Equal Opportunity Employer.

POSTDOCTORAL IMMUNOLOGY POSITION available to study mechanisms of cell activation during anti-tumor and antiviral immunity. Special focus on natural killer cells, signal transduction, and regulation of gene expression. Integrated program will include evaluation of new single, pharmacological, biochemical, and molecular levels. Please send curriculum vitae, statement of background and goals, and three references to: Paul J. Leblon, M.D., Ph.D., Department of Immunology, University of Tennessee, P.M. 59050, An Equal Opportunity/Affirmative Action Institution.
Biochemistry and Molecular Biology of Lipid Biosynthesis

The Biotechnology Division of Du Pont’s Agricultural Products Department is seeking candidates for postdoctoral and/or permanent research positions in the area of lipid biosynthesis in plants. Both positions require a Ph.D. degree and expertise in one or more of the following areas: isolation and characterization of membrane-bound enzymes; quantitative analysis of lipid metabolism; molecular biology and genetics of lipid metabolism. Previous experience with higher plants, though desirable, is not required.

At Du Pont you'll find a stimulating scientific environment in a modern research facility located near Wilmington, DE. Our Mid-Atlantic location offers a wide range of academic, cultural, and recreational activities. We provide excellent compensation, benefits, and relocation assistance. Qualified candidates should send curriculum vitae with three letters of reference to: Dr. John Pierce, c/o Employee Relations Department, Du Pont Company, Room X-51434, Wilmington, DE 19898

U.S. Citizenship Required
An Equal Opportunity Employer M/F/H/V

TWO POSITIONS IN FISHERIES RESEARCH

The CSIRO Division of Fisheries is a major component of the CSIRO Marine Laboratories, which is Australia’s principal marine research institution.

**FISHERIES GENETICIST** SENIOR RESEARCH SCIENTIST/PRINCIPAL RESEARCH SCIENTIST (Ref No: FC 88/27) The Division is looking for a Senior Scientist to undertake research on diverse aspects of the genetics of Australia’s commercially exploitable fish and invertebrates. The research should complement other research groups in the Division providing direct input into problems of species identification, stock delimitation, movement and recruitment dynamics, growth studies and developing problems in manipulation.

The applicant should hold a PhD or equivalent qualifications in genetics with at least six years post doctoral research experience in population genetics including at least five years in fisheries or wildlife research together with substantial research achievement. **SALARY RANGE: AUS$38,203 pa — AUS$51,552 pa**

**FISH POPULATION ECLOGIST** RESEARCH SCIENTIST/SENIOR RESEARCH SCIENTIST (Ref No: FC 88/30) The Division is looking for a Research Scientist to lead a team undertaking research into the abundance, distribution, movement and population ecology of commercially important fishes of the outer shelf and continental slope of Australia. The appointee will be responsible for the formulation, performance and completion of the research, and in collaboration with other research staff, will include the development of field programs to assess population size and dynamics of continental shelf and slope fish species in Southern Australia. The applicant should hold a PhD or equivalent qualification in Zoology, Marine Biology or Fisheries Ecology with post doctoral experience in population or fisheries biology of deep-water marine fin fishes. A demonstrated ability to plan and implement a field program for such fishes is essential. **SALARY RANGE: AUS$30,100 pa — AUS$43,861 pa**

Appointment for both positions will be indefinite (tenured) with Australian Government Superannuation and will be located at the Marine Laboratories Headquarters in Hobart.

Further information including job description and selection criteria can be obtained from Dr P C Young by Fax Australia (002) 2727 or telephone Australia (002) 27 2727. Applications are to be framed against the selection criteria, stating relevant particulars, including details of qualifications and experience and nominating at least three professional referees (for Ref No: FC 88/27) and at least two professional referees (for Ref No: FC 88/30). Applications should be addressed, quoting the appropriate reference number to:

The Chief - CSIRO Division of Fisheries
GPO Box 1538, HOBART, TASMANIA, 7001 AUSTRALIA
By November 18, 1988

CSIRO is an equal opportunity employer

BIOCHEMIST

A position is available in the Department of Basic Microbiology in the Merck Sharp & Dohme Research Laboratories for a bio or clinical chemist. The candidate will be responsible for HPLC and other chemical assays for antibodies in biological specimens. A strong background in computer database systems is desirable. Acceptable candidates will have a Ph.D and postdoctoral experience.

Merck Sharp and Dohme Research Laboratories are located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. Interested candidates should submit their resume with the names of three references and salary requirements to Dolores Barefield, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, WBD-362, Rahway, New Jersey 07065.

Equal Opportunity Employer.
FELLOWSHIPS IN THEORETICAL NEUROBIOLOGY

The Neurosciences Institute invites applications for positions as Institute Fellows in Theoretical Neurobiology. Institute Fellows receive a stipend and are usually appointed for a period of two years with discretionary renewal for up to an additional two years. The Institute is an independent organization located on the campus of The Rockefeller University in New York City. In addition to serving as the home of the Neurosciences Research Program, the Institute is a center of study and research for distinguished visiting neuroscientists. The Institute also supports a program of research in theoretical neurobiology which seeks to develop detailed simulations of neural function that are biologically based and experimentally testable. Current projects include the construction of categorization automata, analysis of synaptic modification mechanisms, and detailed simulations of various cortical and subcortical regions.

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

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

The Neurosciences Institute
of the Neurosciences Research Program

THE SCIENCE RECRUITMENT
“FOUR DAY CLOSE”
NOW YOU CAN SEE YOUR AD IN SCIENCE FOUR DAYS AFTER SUBMISSION

Scientific Recruiters can now advertise positions almost as soon as the need arises. Instead of reserving space a month or more in advance, you can now place your ad four days before the magazine mailing date. SCIENCE is mailed on the cover date.

Film (right-reading, emulsion face down) or full camera ready art and insertion order must reach: SCIENCE, Short Close Desk, 1515 Broadway, New York, NY 10036 by NOON Mondays (except for legal holidays when material must reach New York by Noon Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. ½ and ¼ page ads only.

Now you don’t have to wait to find the researchers you need immediately, nor must you advertise in a Sunday paper that pans a lot of sand, but not much gold. Scientific employers know that SCIENCE ads fill the job better. Now they fill it faster too.

You can call it “INSTANT RECRUITMENT.”

For further information, telephone Ed. Keller, Recruitment Advertising Manager, or Donna Rivera, Production Manager at SCIENCE: 212-730-1050, or write to: SCIENCE, 1515 Broadway, NY, NY 10036.

CURRENT DISTRIBUTION 160,000

FELLOWSHIPS IN THEORETICAL NEUROBIOLOGY

The Neurosciences Institute invites applications for positions as Institute Fellows in Theoretical Neurobiology. Institute Fellows receive a stipend and are usually appointed for a period of two years with discretionary renewal for up to an additional two years. The Institute is an independent organization located on the campus of The Rockefeller University in New York City. In addition to serving as the home of the Neurosciences Research Program, the Institute is a center of study and research for distinguished visiting neuroscientists. The Institute also supports a program of research in theoretical neurobiology which seeks to develop detailed simulations of neural function that are biologically based and experimentally testable. Current projects include the construction of categorization automata, analysis of synaptic modification mechanisms, and detailed simulations of various cortical and subcortical regions.

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

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

The Neurosciences Institute
of the Neurosciences Research Program

THE SCIENCE RECRUITMENT
“FOUR DAY CLOSE”
NOW YOU CAN SEE YOUR AD IN SCIENCE FOUR DAYS AFTER SUBMISSION

Scientific Recruiters can now advertise positions almost as soon as the need arises. Instead of reserving space a month or more in advance, you can now place your ad four days before the magazine mailing date. SCIENCE is mailed on the cover date.

Film (right-reading, emulsion face down) or full camera ready art and insertion order must reach: SCIENCE, Short Close Desk, 1515 Broadway, New York, NY 10036 by NOON Mondays (except for legal holidays when material must reach New York by Noon Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. ½ and ¼ page ads only.

Now you don’t have to wait to find the researchers you need immediately, nor must you advertise in a Sunday paper that pans a lot of sand, but not much gold. Scientific employers know that SCIENCE ads fill the job better. Now they fill it faster too.

You can call it “INSTANT RECRUITMENT.”

For further information, telephone Ed. Keller, Recruitment Advertising Manager, or Donna Rivera, Production Manager at SCIENCE: 212-730-1050, or write to: SCIENCE, 1515 Broadway, NY, NY 10036.

CURRENT DISTRIBUTION 160,000
Department of Health and Human Services
Public Health Service
National Institutes of Health
National Heart, Lung, and Blood Institute
DIRECTOR, DIVISION OF
INTRAMURAL RESEARCH

Opening Date: October 17, 1988
Closing Date: November 16, 1988

The National Heart, Lung, and Blood Institute is recruiting for the Scientific Director of the Division of Intramural Research. The Scientific Director directs a program of multi-disciplinary laboratory and clinical research for the National Heart, Lung, and Blood Institute, NIH. The Scientific Director serves as the principle advisor to the Institute Director on biomedical and scientific affairs involving the intramural research program. The Scientific Director develops and recommends policies for the execution of the intramural research programs, determines their ongoing effectiveness, and recommends or develops new or revised direct research programs dealing with fundamental and clinical research related to heart, lung, and blood diseases. In collaboration with senior officials, participates in the design and implementation of overall Institute management policies including program planning, budget formulation, and resource allocation. The division has a staff of approximately 425 employees and a current annual budget in excess of $68 million.

This is a Civil Service position in the Senior Executive Service (SES), with base salary from $65,994 to $73,400 per year depending on qualifications. SES members are eligible for various bonuses and awards, and physicians are eligible for payments of up to $20,000 per year, although total compensation cannot exceed the rate for Executive Level I (currently $99,500 per year). (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.) The SES individual selected, if not presently in the Senior Executive Service, must serve a one year probationary period.

Further information about the position and qualification requirements may be obtained by contacting Ms. Donna A. Brooks at (301) 496-6477. An Application for Federal Employment (SF-171) along with a Curriculum Vitae and Bibliography should be submitted to: Donna A. Brooks, Personnel Management Specialist, Building 31, Room 5A32, National Institutes of Health, National Heart, Lung, and Blood Institute, 9000 Rockville Pike, Bethesda, Maryland 20892. Additional information may be obtained from: Dr. Anthony S. Fauci, Chairman, Division of Intramural Research Search Committee, Building 31, Room 7A-03, National Institute of Allergy and Infectious Diseases, National Institutes of Health, 9000 Rockville Pike, Bethesda, Maryland 20892 (301) 496-2263.

(All applications must be post-marked by the closing date.)
AN EQUAL OPPORTUNITY EMPLOYER

---

POST DOC OR RESEARCH ASSOCIATE

At Cetus Corporation, we are committed to maintaining our leading role in the research and development of biotechnology-based products.

CELL BIOLOGY

We are currently seeking an experienced Research Associate to conduct experiments on the characterization and production and cloning of factors produced by the immune system. You will develop biological assays and perform Biochemical studies to characterize function, receptors, and mechanism of action.

To qualify for this position, you must have a Ph.D or Masters degree in immunology/cell biology or related areas, with hands on experience in immunology biochemistry and cell biology and a minimum of 5 years' related experience. Good oral and written communication skills are essential. Please respond to Box AC.

Cetus offers competitive salaries and excellent benefits. For immediate and confidential consideration, please send your C.V. including publications and references, indicating the appropriate box number, to:

Cetus Corporation
1400 Fifty-Third Street
Emeryville, CA 94608
We are an Equal Opportunity Employer.

---

Visual Scientist

Alcon Laboratories, Inc., a $500 million multinational manufacturer of pharmaceutical and surgical products supporting the ophthalmologist, as well as products used in the care of contact lenses. As a result of our continued dynamic growth, we have a need for an experienced Visual Scientist to assume a leadership role in our basic research and drug discovery efforts. We are looking for a mature professional who brings their own ideas into our multidisciplinary Research and Development environment.

Your primary responsibility will be developing and leading a group which supplies expertise in the measurement of visual function in animal models of ocular diseases such as glaucoma, retinal degenerative diseases, and inflammatory processes. Thus, your minimal tool skills will include the electrophysiologic, neurophysiologic and psychophysical assessment of vision. Beyond this, you must possess an understanding of the pathology, biochemistry, physiology, pharmacology and anatomy of the retina sufficient to take a leadership role in our team approach to research. Your duties will range widely from hands-on experimentation to proposing new programs and advising upper management on long-term goals and strategies.

This position offers excellent opportunity to participate in one of the world's most sophisticated ophthalmic clinical and research laboratories, in addition to providing a professional environment for growth and recognition. We offer a competitive salary, company paid benefits, an excellent profit sharing plan and a desirable Fort Worth location with recreational, cultural and economic advantages indigenous to the Sunbelt. For immediate and confidential consideration, please send curriculum vitae to: Sherry H. Nightmar, Employment Supervisor, Alcon Laboratories, Inc., Placement and Development, P.O. Box 6600, Ft. Worth, TX 76115.

Equal Opportunity Employer, M/F/H/V + Principals Only, Please

---

*NOTE:* The visual scientist position at Alcon Laboratories is advertised separately. The information provided here is for context and does not directly relate to the content of the main text.
**POSITIONS OPEN**

**POSTDOCTORAL POSITION IN IMMUNOLOGY**

Position for Ph.D. or M.D. available immediately to investigate regulatory mechanisms of the responded modulation of in vitro and in vivo cell development in humans. Emphasis will be on defective differentiation/differentiation seen in humoral immune deficiency. Dr. E. M. Miller, an investigator at the Saxon will work closely with the laboratories of Dr. Andrew Saxon (8 cell differentiation defects) and Dr. Neil Sidell (retinoids and lymphoid development) in conducting these studies. Experience in one or more of the following general areas is desired: Cellular immunology, lymphoid development, molecular biology.

Please send curriculum vitae and three letters of recommendation to:

Professor Andrew Saxon
Department of Medicine
Division of Clinical Immunology and Allergy
52-175 Center For Health Sciences
UCLA School of Medicine
Los Angeles, CA 90024
Telephone: 213-206-8050

**POSTDOCTORAL RESEARCH**

**POSTDOCTORAL RESEARCH FELLOW IN MOLECULAR CELL BIOLOGY.** Skilled in basic recombinant DNA techniques, experience in mammalian cell culture, use of cDNA libraries and transfections (i.e. Northern blotting and in situ hybridization), and protein purification. Interest in the changes of connective tissue genes (collagen, fibronectin, and actin) as a function of tissue injury. Salary: $16,000 to $24,000. Excellent research environment, health benefits and scientific travel funds. Resume and reference letters to: Professor David Amiel, Director, OrthoBiochemistry, USC D-305, La Jolla, CA 92093.

**POSTDOCTORAL RESEARCH POSITION IN MOLECULAR CELL BIOLOGY.** Skilled in basic recombinant DNA techniques, experience in mammalian cell culture, use of cDNA libraries and transfections (i.e. Northern blotting and in situ hybridization), and protein purification. Interest in the changes of connective tissue genes (collagen, fibronectin, and actin) as a function of tissue injury. Salary: $16,000 to $24,000. Excellent research environment, health benefits and scientific travel funds. Resume and reference letters to: Professor David Amiel, Director, OrthoBiochemistry, USC D-305, La Jolla, CA 92093.

The Division of Geology and Planetary Sciences at the California Institute of Technology expects to offer POSTDOCTORAL RESEARCH ASSOCIATES for positions reporting to Professors Blakely, Webster, Muller, and the late Professor K. Donald, in the areas of geology, geophysics, and planetary sciences. Interested persons are asked to send their resumes to: The Division Chairman, Division of Geology and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL RESEARCH POSITION**

**POSTDOCTORAL RESEARCH POSITION** immediately available, devoted to the purification and molecular biology of human platelet thrombostasis A polypeptide. Experience in molecular biology or biochemistry is a necessity. The ideal candidate should have experience in one or more of the following areas: experience in the purification of proteins, experience in receptor binding studies, and experience in the molecular mechanisms of platelet function. The candidate should be a self-starter, have the ability to work independently and coordinate projects. The ideal candidate should have a Ph.D. and be able to work full-time. Send curriculum vitae and references to: Dr. Charles M. Blakely, Department of Biochemistry and Molecular Biology, University of California, Irvine, CA 92717. A3-34, Los Angeles, CA 90024.

**POSITIONS OPEN**

**PROFESSOR OF BIOMECHANICS**

The University of Berne seeks a new Director of the Maurice E. Müller Institute for Biomechanics. The Director of this Institute is a Full Professor in the Faculty of Medicine. The M. E. Müller Institute for Biomechanics is part of the Faculty of Medicine and is financed in part by the M. E. Müller Foundation. It is the aim of this Institute to conduct research in orthopaedic surgery, and to be the State of Berne. The Institute's task concerns applied and basic research on the biomechanics of the musculoskeletal system in its broadest sense. The Institute collaborates closely with the Department of Orthopaedic Surgery and participates in postgraduate teaching. The new director is expected to develop his own research group. He shall also be prepared to engage in collaboration and to foster research projects of other groups of the University. Position is function is being recruited a candidate with research interest in the areas of growth factors or receptors to qualify for a tenure-track position at any professorial rank. Submit curriculum vitae, a short statement of future goals and research plans, and three letters of reference to: Dr. Gerald Litwack, Deputy Director, Fels Institute for Cancer Research and Molecular Biology, Temple University, Philadelphia, PA 19140. An Equal Opportunity Employer.

**PROFESSOR OF BIOMECHANICS**—Professor of Purification and characterization of connective tissue proteins using ion-exchange, gel exclusion and affinity chromatography, isoelectric focusing, hydroxypapatite chromatography, HPLC, electrophoresis, isoelectric focusing, gel electrophoresis, and the use of antibodies. The candidate should have experience in one or more of these areas and be able to develop an active research program. Experience in the purification and characterization of proteins is required. Send curriculum vitae and references to: Dr. Charles M. Blakely, Department of Biochemistry and Molecular Biology, University of California, Irvine, CA 92717. A3-34, Los Angeles, CA 90024.

**PROFESSOR OF BIOMECHANICS**—Professor of Molecular Biology/Biochemistry, University of California, Irvine

A tenure-track ASSISTANT PROFESSOR working on proteolysis and factors involved in the regulation of the immune system is required. The candidate will be expected to conduct research on the regulation of the immune system in plasmid and phage constructions, DNA sequencing, in vitro mutagenesis, and embryo microinjection. Ph.D. in genetics to include training/education in population genetics. Experience in the basic methods of molecular biology. Salary: $17,400 per year. Forty hours per week. Contact: The Job Service at 516 Nampa Street, Durango, Colorado 81301 or 719-243-0120. Application must be received by November 1, 1992. Refer to Job Order Number 8104057.

**PROFESSOR OF BIOMECHANICS**—Professor of Molecular Biology/Biochemistry, University of California, Irvine

A tenure-track ASSISTANT PROFESSOR working on proteolysis and factors involved in the regulation of the immune system is required. The candidate will be expected to conduct research on the regulation of the immune system in plasmid and phage constructions, DNA sequencing, in vitro mutagenesis, and embryo microinjection. Ph.D. in genetics to include training/education in population genetics. Experience in the basic methods of molecular biology. Salary: $17,400 per year. Forty hours per week. Contact: The Job Service at 516 Nampa Street, Durango, Colorado 81301 or 719-243-0120. Application must be received by November 1, 1992. Refer to Job Order Number 8104057.
SENIOR SCIENTISTS
Toxicology Research

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

To further build its research capabilities, Lilly is seeking self-motivated, innovative scientists in the following areas:

**Cardiovascular Physiology**
- To direct laboratory efforts investigating the cardiac and hemodynamic effects of new pharmaceuticals and agrochemicals in the context of toxicology research and safety assessment, utilizing a variety of conscious animal models and state-of-the-art instrumentation.
- Must have Ph.D. in pharmacology, physiology, or a related discipline. (Post-doctoral training is preferable, but not essential.)
- Laboratory experience in the design, execution, and analysis of hemodynamic parameters in whole animal preparations is required.
- Experience with the programming or use of laboratory computers is necessary.

**Biochemical Toxicology**
- To investigate the toxicology of novel therapeutic agents; to support these investigations through the design, conduct, and evaluation of pharmacokinetic studies; and to provide insights into the mechanisms of toxicity in a laboratory environment.
- Ph.D. in pharmacology, toxicology, or a related discipline is required. (Post-doctoral training is preferable, but not essential.)
- Experience in toxicology, pharmacokinetics, and/or drug metabolism is necessary.

In addition, these scientists must have the leadership capabilities needed—technical, communication, interpersonal, and organizational skills—to build a research program.

Eli Lilly and Company is committed to scientific excellence. Lilly provides a stimulating professional atmosphere with many opportunities for collaborative, multidisciplinary research. The company offers an attractive total compensation program. Entry level and salary will be based upon each candidate’s experience.

For prompt consideration, please forward your *curriculum vitae* to:

John W. Crooks, Manager
Ph.D. Recruitment (BCT)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285
RESEARCH ASSOCIATE/ASSOCIATE

The Division of Oncology at the University of Minnesota has an immediate opening for a non-tenured track, annually renewable appointment as a research associate in cancer biology. Research will be conducted on hormonal regulation of gene expression and oncogene expression of growth factors in human breast cancer. A Ph.D. in biochemistry is required, while Ph.D. with M.D. is preferred. Send curriculum vitae, brief summary of research interests, future goals, and names of three references by 30 November 1988 to:

Dr. David Kiang
Associate Professor of Medicine
Division of Medical Oncology
University of Minnesota Medical School
420 Delaware Street, Box 168 UMH
Minneapolis, MN 55455

The University of Minnesota is an Equal Opportunity Educator and Employer unable to encourage applications from women and minorities.

University of Minnesota Department of Radiology has an annual-renewable position available for a synthetic organic chemist at the rank of RESEARCH ASSOCIATE beginning 15 December 1988. The individual must have a Ph.D. in chemistry with specialization in synthetic organic chemistry. The individual must have documented research and experience in synthesis and radiolabeling of analogs of MPTP. The individual must also have demonstrated experience in the synthesis of non-classical nucletides as potential antivi- ral agents; animal handling to determine the biodistribution of these compounds and potential adverse effects; ability to perform autoradiographic analysis of animal specimens and should be comfortable with quantum mechanical modeling to determine structure relations of potential radiopharmaceuticals. An interest in the application of super-computer based algorithms to this modeling is desirable. Responsibilities include the areas of graduate student and undergraduate teaching. Salary is negotiable and competitive, and is dependent upon past scholarly activity and post-Ph.D. experience. Applications for this position will be accepted through 30 November 1988. Send letter to:

Dr. Robert Boudreau, Director of Nuclear Medicine, Department of Radiology, University of Minnesota Medical School, Box 352 UMH, 420 Delaware Street, S.E., Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity and Affirmative Action Employer and Employer/specifically encourages applications from women and minorities.

RESEARCH ASSOCIATE

Ph.D. in molecular biology biochemistry, available immediately. Experience in membrane proteins, Salary up to $25,000. Send resume and three references to: Dr. O. P. Bahl, Department of Biological Sciences, SUNY, College at Buffalo, NY 14260. SUNY is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE/POSTDOCTORAL POSITION is available for a neuropharmacologist to participate in studies of brainstem and spinal regulation of nociceptive behavior. Applicants should have a Ph.D. or M.D. degree with research experience. The work involves identification and characterization of nociceptive transmitters, stereotactic catheter placement for microinjections, and the use of nociceptive testing paradigms. Send resume, description of qualifications, and three references to: Dr. Steven Boileau, Ph.D. in Neuroanesthesia/Pharmacology at the Department of Anesthesiology, West Virginia University, Health Sciences Center, Morgantown, WV 26505. The position is funded by the University Health Associates which is an Equal Opportunity Employer/MPFH.

RESEARCH ASSOCIATE AND INSTRUCTOR

IN PATHOLOGY at a research facility affiliated with medical school. Duties include research on the basic mechanisms of fibrinolysis/blood coagulation with emphasis on thrombin activation of fibrinogen and tPA/ plasminogen interaction with fibrin. Applicant must have a Ph.D. in biochemistry and a minimum of 2 years of relevant research experience. Must have demonstrated, through publication, specialization in regulation of fibrinogen and fibrin metabolism as shown by scientific publications. Must have detailed experience with techniques for protein purification, FPLC, protein chemistry, Western blotting, autoradiography, protein modification, binding and kinetic analysis, and preparation and characterization of monoclonal antibodies. Salary: $27,000 per annum plus relocation. Send resume and references to: Division of Developmental Biology, Hurley Building, Boston, MA 02114 and refer to job reference #81300. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE IN NEUROCHEMISTRY—staff position at the CSI/IBR Center for Developmental Neuroscience at the College of Staten Island of the City University of New York. Seeking candidates with 2 to 4 years experience postdoctoral experience of studies on the role of protein phosphorylation in the regulation and adaptation of receptor function, utilizing neuronal cell lines and CNS tissue culture. Previous experience in protein purification desirable. Starting date: 1 January 1989; competitive salary, excellent benefits. Send curriculum vitae and three references by 30 November 1988 to: Dr. Yigal H. Ehrlich, CSI/ IBR Center for Developmental Neuroscience, The College of Staten Island/CUNY, 50 Bay Street, Stat- en Island, N.Y. 10304. Equal Opportunity/Affirmative Action Employer.

SCIENTIFIC DIRECTOR, OFFICE OF AGRICULTURE BIOTECHNOLOGY—The U.S. Department of Agriculture is seeking an individual with recognized credentials to advise the Secretary of Agriculture and the Assistant Secretary for Science and Education in coordinating the Department’s policies and procedures pertaining to all facets of biotechnology. In addition, this individual will act as a consultant to other USDA agencies and Federal research and regulatory organizations on issues relating to biotechnology. This is a full-time permanent position providing leadership, direction, and guidance to nationwide and international research programs and projects. Advanced educational experience in the area of biotechnology research and the public issues relating to biotechnology is required. Starting salary is $64,397 to $72,500 based on experience and qualifications. Send resume, names, references and salary history to: Division of Personnel Management, USDA, 200 Independence Avenue, SW, Washington, D.C. 20250. Reference: P.O. Box 373-A. Applications must be postmarked by 21 November 1988. For further information and a copy of the complete application package, call: Wayne Winker at 202-475-4811. USDA is an Equal Opportunity Employer.

SENIOR FACULTY POSITION

Applications and nominations being accepted for a senior faculty member at full professor. Requires distinguished record of accomplishment in research and teaching. Responsibilities include leadership of a list of publications and an indication of research interests and the names of three references, by 20 November 1988 (or until suitable candidates apply thereafter) to: Professor Michael D. Gross, Department of Chemistry, University of Nebraska—Lincoln, Lincoln, NE 68588–0304. Telephone: 402-472-2794. Affirmative Action/Equal Opportunity Employer.

Louisiana State University (LSU) Eye Center is looking for a SENIOR PHARMACOLOGIST. Applicant should be interested in drug delivery systems although other areas of research are also considered. Previous experience in ophthalmology not necessary. Interested applicants send curriculum vitae to: Herbert E. Kaufman, M.D., LSU Eye Center, 2020 Gravier Street, New Orleans, LA 70119 or call (504) 581-2000. Equal Opportunity/Affirmative Action Employer.

STAFF SCIENTIST—Nuclear Radiation Physics—UNIZO, Inc. a company to conceive, plan, develop, and coordinate research projects to create new products/processes; conduct research in frontier areas of thermoluminescent dosimetry; serve as staff specialist in all areas of radiation effects research and to customers. No experience required. Must have Ph.D. or A.B.D. in physics, radiation physics, or nuclear engineering, with specialization in radiation effects research, together with detailed knowledge of the following as evidenced by successful completion of one graduate course. Salary range: $15,000 to $18,000 per year. Submit curriculum vitae and letters of reference. Applications from underrepresented minority candidates are encouraged. Applications should be submitted for publication in refereed journal on each of three topics: Non-linear least squares techniques applied to deconvolution of thermoluminescent glow curves and other glow curve measurements and applications; general cavity theory applied to thermoluminescent dosimetry; and theoretical and practical aspects of dosimetry of heavy charged particles using lithium fluoride thermoluminescent dosimetry and application of track structure theory and track intersection theory to dosimetry in radiation fields with emphasis on supralinearm thermoluminescent dose response region. Forty hours per week, 8 a.m. to 5 p.m. Salary: $45,800 per year. Qualified applicants reply immediately with resume to: Equal Employment Opportunity/Afirmative Action Services, P.O. Box 1618, Columbus, OH 43216.

STAFF SCIENTIST to work on the genetic manipulation of maize utilizing haploid plant cell and tissue culture techniques. Ph.D. is preferred. We are strongly committed to diversify in all areas; therefore, we encourage applications from all people, including women, minorities and handicapped persons. A background in an area such as plant morphogenesis, biomechanics, or organismal evolution is expected. Teaching duties include plant anatomy and development, and a course in research specialty. Curriculum vitae and statements of research interests, and three letters of recommendation should be sent by 1 January 1989 to: Meredith A. Lane, EPOB—Campus Box 334, University of Colorado, Boulder, CO 80309–0334.

SAIBNURS LABORATORY TRANSPUGG TAGGAR IN ARABIDOPSIS

A Sainburs Laboratory POSTDOCTORAL POSITION is available immediately to develop an efficient transposon tagging system in Arabidopsis thaliana. The position will be coordinated with Dr. Julie Gravier in the John Innes Institute. The project involves developing lines of Arabidopsis which contain maize transposons in genetically mapped lines. The lines will be tagged by specific Arabidopsis genes. Experience in molecular genetics would be desirable. The position is for 3 years and the salary will be on the scale $19,865 to $25,730. Equal Opportunity/Equal Opportunity Employer.

Applications, including full curriculum vitae, and the names and addresses of three referees, should be sent to: The Personnel Officer, John Innes Institute, Colney Lane, NOR- WICH, NR4 7UH. Closing date: 14 November 1988. Quote Reference: SL/CD.

VERTEBRATE EMBRYOLOGIST—FACULTY POSITION

Tenure-track starting fall 1989. Ph.D. required; uni- versity teaching experience and/or postdoctoral experience desirable. Teaching will include vertebrate embryology, comparative vertebrate anatomy and introductory zoology. The appointee will be expected to develop a research program involving undergraduates and masters/level students. Send curriculum vitae, undergraduate and graduate transcripts, a brief statement of teaching philosophies and research interests, and three letters of recommendation by 15 December 1988 to: Dr. Carl Train, Department of Biology, Southeast Missouri State University, Cape Girardeau, MO 63701. An Equal Opportunity/M/F/Affirmative Action Employer.
FACULTY POSITIONS—HERPES VIROLOGIST/ MOLECULAR BIOLOGIST
ST. JUDE CHILDREN’S RESEARCH HOSPITAL

The Department of Virology and Molecular Biology at St. Jude Children’s Research Hospital has two positions available at the junior and senior levels for individuals with research interests in the molecular biology and pathogenesis of the herpesviruses. Candidates should have a Ph.D., M.D., or veterinary degree with research accomplishments that reflect an ability to maintain an independent program. We are seeking to complement our current research programs which include studies of the replication and pathogenesis of influenza and paramyxoviruses, iridoviruses, adenoviruses and EBV.

The 17-member Department of Virology and Molecular Biology is part of St. Jude’s multidisciplinary staff of 120 faculty and 60 postdoctoral fellows engaged in both clinical and basic research. The positions, which are well supported by institutional resources, offer opportunities for collaborative research with members of the Immunology, Tumor Cell Biology, Biochemistry, and Pharmacology Departments, as well as with members of the clinical staff.

The Institution has Core facilities for the synthesis of oligonucleotides and peptides, for peptide and DNA sequencing, a hybridoma facility, an electron microscope facility, two shared flow cytometers, a molecular modeling/molecular biology computer facility, and a state-of-the-art animal care facility. A new basic research building will provide over 200,000 square feet of laboratory space.

Candidates should send a curriculum vitae, including a brief description of research, and names of three references to: Dr. John W. Sixbey, Chairman, Search Committee, Departments of Infectious Diseases and Virology and Molecular Biology, St. Jude Children’s Research Hospital, P.O. Box 318, Memphis, TN 38101-0318.

Equal Opportunity/Affirmative Action Employer

WALTHER ONCOLOGY CENTER

FACULTY AND POSTDOCTORAL POSITIONS
MOLECULAR BIOLOGY

THE WALTHER ONCOLOGY CENTER, part of the INDIANA UNIVERSITY SCHOOL OF MEDICINE, is seeking motivated and productive candidates to pursue original basic research in the areas of:

- **Gene transfer**: transfection, retroviral infection, transgenic mice, especially as it relates to growth and differentiation factors and their receptors, and **Signal transduction**.

Faculty (tenure- and non-tenure-track) and post-doctoral positions are available for candidates with PhD, MD and MD/PhD degrees. Primary appointments will be in clinical and/or basic science departments within the Medical School. Laboratory space will be in the new Clinical Research Building.

Interested candidates should send their C.V., publication list, research goals and the names and addresses of at least three references to:

Hal E. Broxmeyer, PhD
Professor of Medicine,
Microbiology and Immunology
Scientific Director, The Walther Oncology Center
Indiana University School of Medicine
Clinical Building, Rm 379
541 Clinical Drive
Indianapolis, Indiana 46223

Indiana University is an Affirmative Action/EQUAL Opportunity Employer

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
Seeks Qualified Candidates for

Department Chair
Department of Parasitology and Laboratory Practice

The Department of Parasitology and Laboratory Practice is one of eight departments in the School of Public Health in the Division of Health Affairs. The Department is being reorganized to focus its activity away from Laboratory Practice toward medical and molecular parasitology.

**Responsibilities**: provide leadership in achieving research and curricular goals; attract external research funding; recruit faculty and encourage development of interactions with other departments in the School of Public Health and the School of Medicine in matters related to parasitology and infectious diseases; and to administer other matters pertaining to the operation of a strong academic department with a graduate research emphasis.

**Qualifications**: Earned doctorate with a biochemical, molecular or immunological research orientation. Record of professional activities, research, and scholarship which establishes preeminence at the national/international level. Possession of the requisite administrative skills for the development and management of a sound academic program.

**Faculty status, rank and salary**: Tenure track position at the Associate or Full Professor level, rank and salary commensurate with experience and qualifications.

**Review of applications will begin on November 1, 1988 and continue until the position is filled. Expected starting date is July 1, 1989.**

**Application**: Send resume and names of three references to:

Professor Philip C. Singer, Chair
Parasitology and Laboratory Practice
Search Committee
CB 7400, Room 106, Rosenau Hall
University of North Carolina
Chapel Hill, NC 27599-7400

The University of North Carolina at Chapel Hill is an equal opportunity, affirmative action employer. Minority applicants are encouraged to identify themselves.

PROJECT SCIENTIST

Ph.D. in biochemistry, bioengineering, or related discipline with up to five years’ experience or M.S. with three to eight years’ experience. Experience with oxygen chemistry, mass spectrometry, or stable isotopes required. Responsible for analysis of [18]O-enriched biological samples. Develop analytical methods and collaborative and independent research programs. Good interpersonal, written and oral communication skills.

Qualified applicants should submit their resume, including salary history and salary requirement, in confidence to:

**#4210-121**
Human Resources

NSI TECHNOLOGY SERVICES CORPORATION
ENVIRONMENTAL SCIENCES
A Subsidiary of ManTech International Corporation
P.O. Box 12313
Research Triangle Park, NC 27709

EOE
TOXICOLOGIST AND PHARMACOLOGIST

Positions available immediately for a toxicologist and a pharmacologist. A Ph.D. degree in toxicology, pharmacology, or related fields with special interest in some aspect of pharmacology or toxicology research. The incumbent will be expected to establish a strong research program based on extramural funding. Salary and level of appointment of these positions will be commensurate with experience.

Send curriculum vitae, a statement of career objective and three letters of reference to:

Dr. Marcellus Grace
Dean and Interim Chairperson
Division of Basic Pharmaceutical Sciences
Xavier University of Louisiana
7325 Palmetto Street
New Orleans, LA 70125

Xavier University is an Equal Opportunity Employer.

VERTEBRATE PHYSIOLOGIST—The Department of Biology, University of Denver, seeks applicants with postdoctoral experience for a tenure-track position at the assistant professor level. Preference will be given to applicants with research interests in reproductive physiology, neurophysiology, and endocrinology. The applicant will be expected to establish a high quality program of research and teaching at the undergraduate and graduate level. A productive research program characterized by extramural support and the direction of graduate students at the M.S. and the Ph.D. level, is expected. Teaching responsibilities will include an undergraduate course in mammalian physiology with laboratory, and other courses dependent on research major interests. Forward curriculum vitae, a statement of research plans and three letters of reference to: Dr. Robert Doros, Department of Biological Sciences, University of Denver, Denver, CO 80208-0178. Applications must be received by 15 December 1988. Qualified women and minorities are encouraged to apply. An Equal Opportunity/Affirmative Action Employer.

TRAINING PROGRAM

PRE- AND POSTDOCTORAL TRAINING IN PULMONARY DISEASE Positions are available at The Johns Hopkins Medical Institutions for multidisciplinary research training in lung diseases. Areas of interest include the immunology, physiology, cell biology, biochemistry, and toxicology of the lung. For further information please contact: J. T. Sylvestre, M.D., Division of Pulmonary and Critical Care Medicine, 600 North Wolfe Street, Baltimore, MD 21287. Minority candidates are encouraged to apply.

POSITIONS OPEN

TENURE-TRACK POSITION UNIVERSITY OF COLORADO/TECH MEDICAL CENTER L. P. MARKEY CANCER CENTER

The Departments of Surgery and Microbiology and Immunology invite applications for a tenure-track position at the level of assistant/associate professor. Candidates should have a strong background in cell or molecular biology with an interest in the biology of cancer cells. Of particular interest are candidates with expertise in the mechanisms of tumor invasion and metastasis and the role of retroviruses in tumor etiology and development, or the role of viral or cellular oncoproteins in tumor progression. The applicant will join an active group of cell and molecular biologists located in the recently completed Dorothy Enslow Combs building of the Lucille Parker Markey Cancer Center. Applicants must hold the Ph.D. M.D. or D.V.M. degree and have at least 2 years of postdoctoral experience. Associate professor candidates must have an established program. An attractive start-up package is available and the 12-month salary is competitive and commensurate with experience.

Applicants should submit an application letter, curriculum vitae, a statement of research interests and have three letters of reference sent by 1 November 1988 to: Stephen G. Zimmer, Ph.D., Chairman Search Committee, Department of Microbiology and Immunology, L. P. Markey Cancer Center, 800 Rose Street, Lexington, KY 40536-0084.

GRADUATE STUDIES

NEUROSCIENCES AT BAYLOR COLLEGE OF MEDICINE

Baylor College of Medicine offers an interdepartmental Neuroscience Program for students interested in advanced study leading to the Ph.D. in neuroscience. Applications for 1989–1990 must be completed by 1 June 1989, but earlier submission is encouraged. Information regarding the program, financial support, and application procedures may be obtained from: Daniel Johnston, Ph.D., Director of Graduate Studies, Program in Neuroscience, Baylor College of Medicine, NB302, One Baylor Plaza, Houston, TX 77030.

FELLOWSHIPS

SMITHSONIAN INSTITUTION FELLOWSHIP PROGRAM

GRADUATE STUDENT, PRE-, POST-, AND SENIOR POSTDOCTORAL FELLOWSHIPS in American history and material culture, anthropology, biological sciences, earth sciences, history of art, history of science and technology. Tenable in residence at the Smithsonian Institution. Research facilities and study centers vary. Deadline: January 15, 1989. Contact: Smithsonian Institution, Office of Fellowships and Grants, 955 L’Enfant Plaza, Suite 7300, Desk N, Washington, DC 20560, (202) 357-3271. Awards are based upon merit, without regard to race, color, religion, sex, national origin, age, or condition of handicap of applicant.

MARINE SCIENCE. Two postdoctoral fellowships starting 3 January 1989; 1-1/2-year minimum term. Marine Botany: experience with algal or seagrass ecology and physiology using SCUBA. Benthic Ecology: experience with metabolism, microbes, or modeling preferred. Salary range: $20,000 to $23,000. Submit résumé and two letters of recommendation by 15 November 1988 to: Dr. Kenneth Dunton (Botany) or Dr. Paul Montgomery (Benthos), The University of Texas at Austin, Marine Science Institute, Texas 78733-1267. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIPS IN THE DEPARTMENT OF ANATOMY AND NEUROBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Several positions for research in individual laboratories in the Department of Anatomy and Neurobiology which have demonstrated research promise at the predoctoral or postdoctoral level. The emphasis of research in the Department is in the integrative roles and special expertise in neuromorphology, sensory physiology, and molecular neurobiology. The faculty of the Department and their research interests are:

Dr. Robert Blankens: Eye movement control, physiology of upper airway
Dr. James Fallon: Chemical neuroanatomy, transmitters and growth factors
Dr. Christian Gall: Limbic/electroty anatomy, neuroendocrine, neurochemical development
Dr. Roland Giolli: Visuomotor system
Dr. Stewart Hendry: Primate visual system
Dr. Edward Jones: Molecular neurobiology
Dr. Leonard Kitzes: Auditory system anatomy and physiology
Dr. Charles Ribak: Epilepsy, neurotransmitters and circuits
Dr. Richard Robinson: Neuroendocrine development
Dr. Malcolm Semple: Auditory processing
Dr. John Swett: Spinal cord and peripheral nervous system
Dr. Yasuhiro Torigoe: Peripheral nervous system and oculomotor control

Applications or inquiries for additional information should be sent to:

Dr. Edward G. Jones, Chairman
Department of Anatomy and Neurobiology
University of California
Med Surge II, Room 364
Irvine, CA 92717

An Affirmative Action/Equal Opportunity Employer.

FELLOWSHIPS

CANCER RESEARCH POSTDOCTORAL FELLOWSHIPS—Positions available for postdoctoral research training in oncology. Ph.D. or M.D., U.S. citizen or permanent resident. Programs areas: Carcinogenesis, clinical immunology, clinical research, endocrinology, epidemiology, immunology, molecular genetics, and radiobiology. Contact: Norris Cotton Cancer Center Administration, Dartmouth-Hitchcock Medical Center, Hanover, NH 03756. Affirmative Action/Equal Opportunity Employer.

SYMPOSIUM

SYMPOSIUM ON TRANSGENIC TECHNOLOGY IN MEDICINE AND AGRICULTURE, 12 to 15 December 1988, Masur Auditorium, Warren E. Magnuson Clinical Center, National Institutes of Health, Bethesda, Maryland. Sponsored by the Center for Population Research, National Institute of Child Health and Human Development. The meeting will focus on: gene transfer: approaches, methods, and tools; gene expression in transgenic systems: uses of transgenes in understanding biology; potential uses of transgenic systems in medicine; the production of pharmaceutical transgenic animals in agriculture; and commercial and environmental concerns. Much of the symposium has been scheduled but additional time will be allotted for submitted abstracts. Abstracts will be accepted for the meeting and must be submitted by 8 November 1988. For more information, to obtain a program, or to submit an abstract, contact: Penny Colbet, CPP, Room 604, EPN, 9000 Rockville Pike, Bethesda, MD 20892, or call: 301-496-1101.

MARKETPLACE

PROTEIN KINASE C

Highly purified rat brain PKC (2-3 nmo/ min/mg). Prepared as described (Meth. Enzym. 124 pg 349). Samples of 50 units (nmo/ min) Lipidex, Inc. (608) 221-5503

T-CELL GROWTH FACTOR (NATURAL IL-2)

Pan-Data Systems, Inc. (PDS) produces large quantities of PHM-free IL-2 (TGF) from simulated peripheral blood lymphocytes or IL-2 dependent leukocytes and favorably compares with other commercial products in both quality and price. Large lots are available for wholesale.

Cat. # F0250
$90.00/50 ml
13 Taf Court, Rockville, Md, 20850
(301) 294-2279 Fax: (809)
1 (800) 543-6659

NEED DNA FAST?

Custom DNA in 24 hours* Reduces Modifications: 5-Phosphorylation. Low Prices. Purification by HPLC or gel. Uniformity, adaptability, promised results. Call for new low prices.

*1-800-247-8766
The Midwest Certified Reagent Co.
3112A W. Cubhurt, Midland, MD 79701

Circle No. 134 on Readers' Service Card.

Custom DNA Purified and Delivered in 48 hours.

$10.00 a base for the first 15 bases, $7.50 for each additional base. No additional charges.

Research Genetics
1-800-533-4363

Circle No. 158 on Readers' Service Card.
"A researcher needed better recovery of Fab fragments from her digested IgG. I recommended our ImmunoPure™ Fab Preparation Kit."

The call came from a researcher trying to digest IgG for the first time. She had a problem recovering Fab fragments from her digested IgG preparation. The ImmunoPure™ Fab Preparation Kit was the solution. It's an easy-to-use kit that includes everything needed to recover 80-90% of Fab fragments.

The secret's in the immobilized enzyme we include with every ImmunoPure™ Fab Kit. It eliminates the separation step, saving valuable research time. And better yet, it lets you generate Fab and Fc fragments from IgG—avoiding contamination of final preparations with enzyme.

Whether you're new to research or a seasoned investigator, we think you'll appreciate the special accessory kit that simplifies the manipulation of the immobilized enzyme. And the prepacked columns of immobilized Protein A, along with specially prepared buffers that separate Fab fragments and undigested IgG.

One convenient kit combines ease-of-use and high performance. Call today for information on the complete line of ImmunoPure™ products. Ask about our 97% in-stock policy and guaranteed two-day shipping (at no expense to you—or your institution).

Krisna Mallia
Dr. Mallia is the Associate Director of Research at Pierce.

P.O. Box 117 / Rockford, IL 61105 USA / Telex: 910-631-3419
Telefax: 815-968-7316 / In Europe call 31-1860-19277

Circle No. 143 on Readers' Service Card
How To Choose The Right Low Pressure LC System Even If It Isn’t Ours

To simplify choosing the right peristaltic pump, detector and fraction collector for your LC System, review these guidelines and send for our free Low Pressure System Selection Worksheet:

1. Identify your separation goals.
   - Know the characteristics of your sample. What mass will you load on your column? What flow rate will you need to achieve optimal speed and resolution? At which wavelengths does your sample exhibit maximum absorbance? What size fractions will you collect? Are you interested in collecting peaks?

2. Examine the components' specs.
   - After you've identified the key operating parameters, take a look at the pump, detector and fraction collector specifications to be sure they meet your needs. To illustrate, let's look at specifications for components in the Gilson Low Pressure System.

The most important criteria used to select a peristaltic pump are smooth, stable flow and usable flow rate range. The Gilson system uses the new Minipuls 5 Pump. Stepper-motor drive and proven pump head design ensure smooth flow from 1 ul to 50 ml/min. A high flow head allows flow rates from 50 ml to 220 ml/min. Interchangeable pump heads with 1-, 2-, 4-, or 8-channel are available.

Wavelength specificity and ease-of-use are key considerations when choosing a detector. The Gilson 112 UV/VIS fixed-wavelength detector allows selection of wavelengths from 214 nm to 640 nm. A choice of five flow cells accommodates a wide range of flow rates and sample concentrations. A large digital readout and convenient autozero and event mark functions keep detector operation easy.

Select a fraction collector according to your collection mode, fraction volume, and multiple column collection needs.

Gilson's FC 203 fraction collector allows drop, time, or peak collection modes with up to ten collection windows in each mode. The widest range of racks available—capable of handling as many as 128 fractions—makes the FC 203 suitable for almost any application.

4. Look at each supplier's record of reliability, service and support.
   - After identifying suitable components, you narrow your choice by looking at each supplier's track record for reliable equipment and efficient service.

To evaluate the Gilson Low Pressure System, consider our reputation for fraction collectors and detectors. Gilson has a proven track record that began more than 35 years ago. More than 1000 FC 203s—introduced just 16 months ago—continue to display dependable, trouble-free operation.

The Minipuls 2, the reliable predecessor to our new Minipuls 3, has earned spaces on more than 24,000 lab benches worldwide, making it the best-selling peristaltic pump.

5. Use our free Low Pressure LC System Selection Worksheet to gather and compare your options.
   - For the final step in choosing your system, compare the information you've gathered. To help, we've put together a selection worksheet to simplify the process.

This free worksheet lists major criteria to use in your comparisons. We've filled in information about the Gilson Low Pressure System and have left space for you to fill in specs from other suppliers.

Why do we encourage this comparison? Because it's the best way to buy a system matched to your needs. Plus, we're confident that in most cases your low pressure system will be a Gilson Low Pressure System.

So, for your free Low Pressure System Selection Worksheet, simply circle the magazine's reader service number or call us toll free at 800-445-7667. We'll see that you get your worksheet fast.

Gilson Medical Electronics, Inc., Box 27, 3000 W. Beltline Hwy., Middleton, WI 53562 USA, Tel: (608) 836-1551 Telex: 26-5478
Gilson Medical Electronics (France) S.A., 72 rue Gambetta, B.P. No. 45,95400, Villiers-le-Bel, France, Tel: (1) 39 90 54 41 Telex: 696682

Circle No. 49 on Readers' Service Card