

Products & Materials

Transgenic Mice

MutaMouse is a transgenic mouse engineered to efficiently detect gene deletions and base pair mutations in vivo. Lambda bacteriophage containing *Escherichia coli lacZ* gene has been inserted into the genome of MutaMouse. Now every somatic and germ cell in MutaMouse contains this gene, which is quickly recovered using standard techniques. As a result, MutaMouse provides a mammalian model that lets researchers readily detect mutants. Potential research applications include bone marrow studies, skin carcinogenicities, target organ susceptibility, carcinogens versus tumor promoters, growth factor impacts, germinal cell mutations, mutations and pregnancy, and environmental monitoring. Hazleton Research Products. Circle 558.

Organics Removal and Concentration Kit

The Organics Removal and Concentration Kit provides an opportunity to try various methods of preparing samples for optimizing a particular analytical method. Each kit contains components and protocols for removal or concentration of nonpolar organics such as hydrocarbons, concentration of nonpolar and slightly polar drugs, and removal and concentration of pesticides and phenols. Bio-Rad Laboratories. Circle 559.

Configurations Adapter for 3-D Imaging

The Configurations Microscope Adapter Model VX100 allows researchers to convert a standard fluorescence microscope into a configurations microscope capable of generating high-resolution images and allowing optical sectioning of thick specimens. Configurations microscopes vastly improve contrast in fluorescent biological specimens, allowing viewing of thin successive specimen

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

layers. Because the VX100 uses the arc lamp-source of a regular microscope, it works with most fluorescent stains over a wide wavelength band. The VX100 is compatible with most research microscopes, including Zeiss Axiophot and Axioplan, Nikon Optiphot and Labophot, and Olympus BHS and BHT. Newport Bio-Instruments. Circle 560.

Primer Design Software

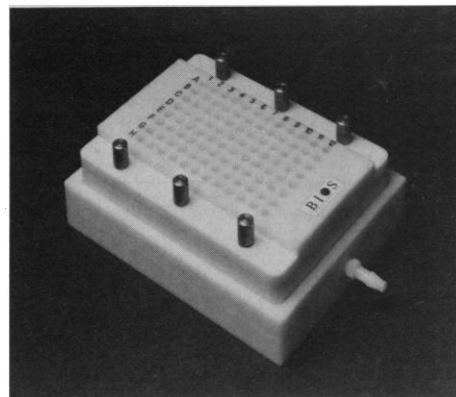
Primer Detective is a software program for IBM-compatible computers for designing high-quality DNA oligonucleotide primers. The program rapidly searches DNA and RNA sequences for primers used for sequencing, polymerase chain reaction experiments, and other applications. It performs its search based on user-specified selection criteria. DNA or RNA sequences can be imported into Primer Detective directly from GenBank files or any standard ASCII files. The program requires 256 K of memory and features user-friendly menus, help screens, and full mouse and color monitor support. Clontech Laboratories. Circle 561.

DNA and Protein Sequence Analysis Software Updated

IntelliGenetics has updated its DNA and sequence analysis software for both IBM-compatible computers and for VAX and Sun computers. PC/GENE, for IBMs, offers four new sequence analysis programs. One predicts eukaryotic promoters by using optimized weight matrices to define four promoter elements, another determines intron and exon regions as well as "simple sequence DNA" regions based on the compositional complexity of the sequence, a third predicts physical and chemical properties of proteins and nucleic acids, and a fourth determines the statistical significance of a run or cluster of amino acids based on the amino acid composition or the protein analyzed. Release 5.4 of the Suite package for VAX and Sun computers marks the next step of database searching, making the vast amount of database information easily accessible. IntelliGenetics. Circle 562.

Dot Blotter

The BIOSPOT Dot Blotter will simultaneously process up to 96 DNA, RNA, or protein samples as circular dots on membranes. The unit is made from a temperature-resistant material that will not warp or



crack under normal operating conditions, as happens with many dot blotters over time. O-rings surround each well, which improves the seal, eliminates cross-talking between samples, and provides uniform dots on membranes. BIOS Corp. Circle 563.

Visual Comparison of Chromatograms

The Overlay Program provides for qualitative comparison of up to 20 chromatograms. It is designed to run on the Spectra-Physics WINner, WINner/286, and WINner/386 workstations. Operators can use Overlay to detect differences in a series of sample analyses, giving an indication of peak purity. Chromatograms can be drawn directly on top of each other, or offset in the X and/or Y direction. To identify small differences in chromatograms, operators can manipulate traces by addition or subtraction. Spectra-Physics. Circle 564.

Literature

Innovative Products for Molecular Biology Research is a 112-page catalog. It has more than 75 new products, including a computer-based image analysis system, new electrophoresis chambers, power supplies, a trans-illuminator, a benchtop cooling apparatus, and many supply items for electrophoresis and autoradiography. Fotodyne. Circle 565.

Process Column Selection Guide guides the chromatographer through the fundamental considerations for scale-up and choice of column for process development and production. Columns are presented in "families" to facilitate selecting the column best suited to one's needs. Pharmacia LKB Biotechnology. Circle 566.

The *Wheaton Laboratory Products Catalog* features more than 200 pages of vials, bottles, jars, flasks, caps, environmental samplers, rotary evaporators, and more. Wheaton. Circle 567.

Personnel Placement

LINE CLASSIFIED ADVERTISEMENTS

DEADLINES: Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* publishes each Friday, except the last Friday of the year. Advertisements must be submitted in writing.

HOW TO SUBMIT A CLASSIFIED AD: Prepare double-spaced typewritten ad copy on a separate sheet. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Also include a cover sheet which gives name and phone number of contact person, desired date of publication, and billing information, including any special invoicing requests. Mail or FAX materials to:

SCIENCE Classified Advertising
1333 H Street, N.W., Room 940
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816

CLASSIFICATIONS: *Science* publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired.

HOW TO CALCULATE RATE FOR CLASSIFIED AD: Ads are \$41 per line with a \$410 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces.

To ESTIMATE ad cost, count total number of 52 character lines and multiply by \$41 to find approximate cost of ad per week. Each line of centered heading counts as one line. Also count one line for white space between headline and first line of text; all partial lines are also counted as full lines (including all centered reply information).

Remember, this is a rough estimate only. Allow for variation between estimated typewritten lines and ads when actually typeset for magazine. Therefore, purchase orders must allow additional funds for flexibility and/or adjustment. *Science* cannot provide proofs of typeset ads.

PREPAYMENT DISCOUNT: A 3% cash discount is granted to all prepaid line ads. Prepayment made in U.S. dollars by checks drawn on U.S. banks is required on all foreign ads.

CREDIT CARDS: *Science* accepts MasterCard and VISA. Both personal and corporate cards may be used. Prepayment does not apply to credit cards.

BOXES AND LOGOS: Any line classified ad can be boxed and/or published with logo to increase its visibility on page. Since the box takes up additional space, one line now equals 48 characters and spaces; two additional lines will be added to allow for top and bottom rules. Logos are billed according to the number of lines needed to fit logo in space.

CANCELLATIONS: Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and information about fractional display ads (all ads 1/6 page and larger) and all Marketplace listings of available products and services, contact:

Scherago Associates
1515 Broadway
New York, NY 10036
Telephone: 212-730-1050
FAX: 212-382-3725

CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it and to decline classifications which it considers misleading.

POSITIONS OPEN

ASSISTANT PROFESSOR PLANT GROWTH AND DEVELOPMENT

Applications are solicited for a tenure-track plant physiologist position (11-month appointment; approximately 90% research, 10% instruction) to begin January 1992. Responsibilities: develop a vigorous, competitive research program on the molecular biology of tropical plant growth and development with emphasis on the use of tissue culture; participate in graduate and undergraduate programs. Qualifications: Ph.D. in plant physiology or a related field, postdoctoral experience, and evidence of successful teaching. Applications accepted until 30 August 1991 or until a suitable candidate is found. Send curriculum vitae, research interests, academic transcripts, and three letters of recommendation to: **Search Committee Chair, Department of Plant Molecular Physiology, University of Hawaii, 3190 Maile Way, Honolulu, HI 96822.** Telephone: 808-956-8384. FAX: 808-956-3542.

Affirmative Action/Equal Opportunity Employer.

TREE PHYSIOLOGIST. The Department of Forestry is seeking applications for a 12-month, tenure-track position at the **ASSISTANT PROFESSOR** level beginning 1 January 1992. The successful applicant will be expected to demonstrate research productivity as evidenced by publications and extramural support and direct graduate students. Teaching responsibilities include an undergraduate course in tree physiology and a graduate course in his/her area of specialization. Applicants should send résumé, letter of application, academic transcripts, and five letters of reference to: **S. T. Gower, Chair, Search Committee, Department of Forestry, University of Wisconsin, Madison, WI 53706.** Deadline is 1 August 1991. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

ALZHEIMER'S DISEASE RESEARCH COLLEGE OF PHYSICIANS AND SURGEONS COLUMBIA UNIVERSITY

Tenure-track **ASSISTANT PROFESSOR OF NEUROLOGY AND/OR PATHOLOGY.** The Departments of Neurology and Pathology are seeking up to three neurologists or neuropathologists to establish research programs on the biological basis of Alzheimer's Disease and other degenerative diseases of the nervous system. Applicants must have clinical training as well as basic research training and a record of publication. The successful candidates would be members of the Center for Alzheimer's Disease Research and of the Neurobiology of Aging Training Program. Adequate space and start-up funds are available but candidates are expected to develop independently funded programs. For exceptional candidates, appointment at the **ASSOCIATE PROFESSOR** level would be considered. Columbia provides an extremely rich research environment in the fundamental neurosciences combined with strong clinical programs in the dementias and their epidemiology. Applicants should forward their curriculum vitae together with three letters of recommendation to:

Michael L. Shelanski, M.D., Ph.D.
Director, Center for Alzheimer's Disease Research
Department of Pathology
College of Physicians and Surgeons
630 West 168th Street
New York, NY 10032

Columbia University is an Affirmative Action/Equal Opportunity Employer.

The Department of Anatomy and Neurobiology, University of California, Irvine, seeks a Ph.D. auditory neurophysiologist for a position as **ASSISTANT ADJUNCT PROFESSOR.** The applicant must have at least 3 years of postdoctoral experience, a proven ability to secure extramural research funding, and referred publications demonstrating expertise in single-unit recording at different levels of the mammalian central auditory system, including auditory cortex. The successful candidate will be expected to establish an independently funded research program complementing existing research on auditory cortex, ideally focused on mechanisms for sound localization. Previous experience teaching auditory neurobiology is required. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. R. T. Robertson, Department of Anatomy and Neurobiology, University of California, Irvine, Irvine, CA 92717.**

Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR POSITION CELLULAR REGULATION DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY ST. LOUIS UNIVERSITY

Applications are invited for a position involving teaching and research at the level of assistant professor in biochemistry and molecular biology. Individuals with three or more years of research experience in membrane biochemistry and function, biosynthesis of membrane lipids and carbohydrates, organelle biogenesis, and receptor-mediated transport are encouraged to apply for this position. Curriculum vitae, description of research plans, and at least three letters of recommendation should be sent by 21 July 1991 to: **Search Committee, c/o Dr. William S. Sly, Chairman, Department of Biochemistry and Molecular Biology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.** *St. Louis University is Affirmative Action/Equal Opportunity Employer.*

MYCOLOGIST. West Virginia University, Morgantown. Division of Plant and Soil Sciences, College of Agriculture and Forestry. A tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level. The position is 60% research, 40% teaching and is on a 9-month basis with summer employment negotiable. The person will be expected to develop an extramurally funded research program in fungal physiology, genetics, taxonomy, ecology/environmental microbiology, or plant fungal interactions. Collaboration on interdisciplinary research and teaching of undergraduate/graduate classes in mycology and fungal physiology are required. A Ph.D. is required. Postdoctoral or other research and teaching experience is desirable. The person must be well grounded in organismal mycology and able to apply modern techniques of biochemistry or molecular biology to research. Position available 1 January 1992. Applications accepted until 1 September 1991 or until suitable applicant is identified. Interested individuals should send letter of application, résumé, and three letters of reference to: **Barton S. Baker, Director, Division of Plant and Soil Sciences, P.O. Box 6108, West Virginia University, Morgantown, WV 26506-6108.** *An Affirmative Action/Equal Opportunity Institution. Women and members of minority groups are encouraged to apply.*

RESEARCH ASSISTANT PROFESSOR. Position available in the Division of Cardiothoracic Surgery. Duties include coordinating some of the group research efforts of the division, as well as developing an independent extramurally funded research program in an area related to cardiothoracic surgery. Ph.D. or equivalent in physiology or a related area with an emphasis on cardiac physiology is a requirement, with other advanced degrees such as M.D. or D.V.M. also desirable. Send curriculum vitae to: **Jack J. Curtis, M.D., Division of Cardiothoracic Surgery, University of Missouri-Columbia School of Medicine, One Hospital Drive, Columbia, MO 65212.** Application deadline is: 15 July 1991. *The University of Missouri-Columbia is an Equal Opportunity and Affirmative Action Institution.*

RESEARCH INSTRUCTOR OR ASSISTANT PROFESSOR OF NEUROLOGY

The Department of Neurology, Medical College of Virginia, invites applications for a research instructor or assistant professor in basic molecular neurobiology research. Duties will include performing molecular biology procedures on intact preparations and cultured neurons, organize the molecular biology laboratory, and be responsible for teaching basic techniques to students and graduate students. Knowledge of light microscopy, HPLC, SDS-PAGE, DNA and RNA analysis procedures, gel shift assays, lipid analysis, animal surgery, and tissue culture techniques is essential. M.S., M.D., or Ph.D. degree is acceptable. Extensive experience in molecular neurobiology with at least 2 years of experience in running a laboratory and supervising postdoctoral fellows is required. Experience with cell culture and tissue culture techniques is essential.

Applicants should send their curriculum vitae and the names and addresses of three references to: **Robert J. DeLorenzo, M.D., Ph.D., M.P.H., Professor and Chairman of Neurology, P.O. Box 599, MCV Station, Richmond, VA 23298.** *The Medical College of Virginia/Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

ASSISTANT PROFESSOR

The Department of Food Science and Nutrition, University of Minnesota, seeks a food scientist for a 12-month, tenure-track position as assistant professor. A Ph.D. in food science, biochemistry, microbiology, or related field is required. Prefer primary interest in dairy-foods research. Research, teaching, and public service responsibilities will depend on expertise and interests of the candidate, and should include evolving aspects of cheese systems. Advise undergraduate, M.S., and Ph.D. students. Candidate must have a commitment to research and will be expected to establish and maintain a strong externally funded research program. Postdoctoral or industry experience is preferred. By 1 November 1991, send curriculum vitae, publication list, statement of research interests, and names and addresses of at least three references to: E. A. Zottola, Chair, Search and Screen Committee, Department of Food Science and Nutrition, University of Minnesota, 1334 Eckles Avenue, St. Paul, MN 55108. Appointment available 1 March 1992. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

ASSISTANT PROFESSOR

DEPARTMENT OF PHARMACY UNIVERSITY OF CALIFORNIA SAN FRANCISCO, CALIFORNIA (UCSF)

The Department of Pharmacy invites applications for a tenure-track assistant professor position. Applicants should have a Ph.D. or equivalent degree. Postdoctoral research experience is preferred. It is expected that the appointee will develop a strong and independent research program in the area of mechanisms of drug disposition (e.g., metabolism, transport, pharmacogenetics) or drug action. Teaching responsibilities will be both in the professional curriculum and in the graduate program and will likely be in the area of pharmacokinetics/pharmacodynamics and/or other areas of the appointee's expertise.

Send curriculum vitae, a summary of current research, a concise outline of future research plans, and the names of three individuals willing to provide letters of recommendation by 30 August 1991 to: Svein Øie, Ph.D., Professor of Pharmacy and Pharmaceutical Chemistry, Department of Pharmacy S-926, Box 0446, University of California, San Francisco, CA 94143-0446.

UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR CELL AND MOLECULAR BIOLOGY OF AGING

The Roy M. and Phyllis Gough Huffington Center on Aging is expanding its research programs and invites applications for faculty positions to complement its current activities. Candidates should have a Ph.D. or M.D., demonstrated ability to pursue independent research in cell and molecular biology and research interest in studies of the basic biology of aging process. Applicants for the associate professor position should have an established, nationally recognized research program in this area. The appointment will be tenure track in an appropriate basic science department at Baylor College of Medicine. Applicants should send curriculum vitae, statement of research interests, and names of three references by 30 August 1991 to: James R. Smith, Ph.D., Co-Director, Huffington Center on Aging, Baylor College of Medicine, One Baylor Plaza, M320, Houston, TX 77030-3498. *Baylor College of Medicine is an Equal Opportunity/Affirmative Action Employer.*

FACULTY TEACHING POSITIONS. The New York Chiropractic College is pleased to announce the relocation of its campus to the beautiful Finger Lakes Region in Seneca Falls, New York. The Division of Pre-Clinical Science invites applications for two full-time teaching positions, one in anatomy and one in physiology. Applicants should have a Ph.D. in the appropriate discipline, or an M.D. degree and also should be committed to excellence in teaching. Interested individuals should send curriculum vitae and names of three references by 21 July 1991 to:

Barbara J. Davis, Ph.D.
Director, Pre-Clinical Studies
New York Chiropractic College
P.O. Box 800, Seneca Falls, NY 13148

The New York Chiropractic College is an Equal Opportunity Educator and Employer.

21 JUNE 1991

Senior Scientist - PhD Drug Disposition and Metabolism

Imagine A Pharmaceutical Group
With A Small Company Culture
And Large Corporate Resources...

As the prescription pharmaceutical division of Procter & Gamble, Norwich Eaton is making significant progress in a very competitive industry. Innovation is the key to our success. Here you'll discover a vibrant, highly spirited environment where new ideas are appreciated and individual talent is acknowledged and rewarded.

To facilitate our on-going growth, we seek a Senior Scientist interested in the biological handling of new drugs and in related pharmacokinetics, especially in regard to dosage form performance, metabolism, and pharmacodynamics. The position requires a PhD in a pharmaceutically related science with experience in a relevant field such as chemistry, metabolism, pharmacology, or toxicology. Primary responsibilities include support of drug discovery programs using innovative study designs and methods (cold and radiotracer) to address ADME and bioavailability issues, as well as the interpretation/presentation of data for INDs/NDAs, accompanied by extensive interactions with allied areas such as clinical, drug safety, pharmaceutical, regulatory, etc. The applicant's practical skills should be complemented by a high level of initiative and superior communication ability.

Bring us your capabilities, self-motivation and expertise. We'll provide the career advantages of a Fortune 50 organization coupled with the cultural benefits of a scenic up-state New York community, 200 miles northwest of New York City. For confidential consideration, please forward resume to: **Mr. Terry M. Stark - DDM, Norwich Eaton Pharmaceuticals, Inc., 17 Eaton Avenue, Norwich, NY 13815.**

Norwich Eaton

Norwich Eaton Pharmaceuticals, Inc.
A Procter & Gamble Company
An Equal Opportunity Employer

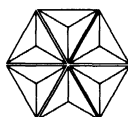
PH.D. - SENIOR RESEARCH INVESTIGATORS Cardiovascular Pharmacology

Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our efforts in the areas of cardiovascular, infectious, and metabolic diseases. This expansion has two exceptional opportunities for Ph.D.-Senior Research Investigators in Cardiovascular Pharmacology.

Primary responsibilities for the first position will include conducting studies of arterial and venous thrombosis for evaluation of new antithrombotics and anticoagulants and evaluating ex vivo antiplatelet and anticoagulant activities. In addition, you will research and develop animal models of human disease involving thrombosis and related problems. A Ph.D. in Physiology or Pharmacology and 4 years of postdoctoral work with thrombosis/ischemia/inflammation/vascular permeability/blood coagulation animal models are required. **Dept. 223A.**

The second position will involve supervising laboratory research in the areas of vascular smooth muscle function as it relates to cardiovascular diseases and implementing in vitro test systems for the evaluation of vasoactive agents. Additional responsibilities include conducting independent research in vascular smooth muscle physiology/pharmacology/biochemistry, participating in collaborative planning with scientists involved in cardiovascular research programs, and providing presentations on research results. A Ph.D. in Cardiovascular Pharmacology or Physiology and 4-6 years of experience after the degree are required. **Dept. 223B.**

We offer a competitive salary and benefits package. For consideration, please forward your resume (including Dept. #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 4000, Princeton, NJ 08543-4000.** Equal Opportunity Employer, M/F/H/V.



Bristol-Myers Squibb Company

POSITIONS OPEN

The Department of Neurology, University of California, Irvine (UCI), has an opening for a Ph.D. in pharmacology, psychobiology or biology, or related field at the **ASSISTANT ADJUNCT PROFESSOR** level. Candidate would join the movement disorders group and should have experience in HPLC receptor binding and behavioral studies. Send curriculum vitae and names of three references to: **Dr. Stanley Van Den Noort, Chairman, 375A Med Surge II, UCI, Irvine, CA 92715. Refer to: Position #91-3. Affirmative Action/Equal Opportunity Employer.**

DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY LOYOLA UNIVERSITY CHICAGO

The Department of Microbiology and Immunology of Loyola University Chicago has an immediate opening for a tenure-track virology position at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**. While the successful candidate is expected to obtain extramural funding, the salary is not dependent upon grant funds. Please submit curriculum vitae and the names and addresses of three persons from whom letters of reference can be solicited to:

Katherine L. Knight, Ph.D., Chair
Department of Microbiology and Immunology
Loyola University Medical Center
2160 South First Avenue
Maywood, IL 60153

Loyola University Chicago is an Equal Opportunity Educator/Employer.

NEUROPHARMACOLOGY/ DRUG DEVELOPMENT

Full-time faculty position in Departments of Neurology and Radiology of Case Western Reserve University School of Medicine for Pharm.D. or Ph.D. with major interest in the use of PET in drug development. Individual should have academic qualifications to warrant the rank of **ASSOCIATE PROFESSOR** on the nontenure track. Interested candidates should write to: **Robert B. Daroff, M.D., Department of Neurology, University Hospitals of Cleveland, 2074 Abington Road, Cleveland, OH 44106. Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.**

The St. Louis Veterans Administration Medical Center (VAMC) is seeking a **CHIEF OF STAFF**. The Chief of Staff is fully responsible for programs of patient care and for the educational and research activities of the clinical services. The successful candidate will have extensive administrative experience in an academic medical center, a national reputation in research, and will qualify for professorial rank at St. Louis University and Washington University Schools of Medicine. Please send résumé to: **David Kipnis, M.D., Chairman, Chief of Staff Search Committee, c/o Director's Office, VAMC St. Louis, MO 63125. Questions may be directed to: John T. Carson at 314-894-6661. An Equal Opportunity Employer.**

TROPICAL BOTANIST, CONSERVATION BIOLOGIST. The Department of Botany of the Field Museum of Natural History, to take full advantage of its outstanding herbarium of tropical American plants in an age of rapid deforestation and extinction, seeks an individual with broad knowledge of the Neotropical flora and a strong commitment to conservation-related work. This person is expected to develop a conservation program involving more than one tropical country. Scope of the program could include: inventory, ecology, biogeography, systematics of critical taxa, or ethnobotany. The program should make good use of the museum collections, and must produce and disseminate results of direct and immediate importance to conservation activity in tropical areas. At a junior level the person is expected to do more fieldwork; at a higher level more program development is expected. Salary commensurate with level of experience. Candidate should have a Ph.D. or the equivalent in experience, fluency in Spanish or Portuguese, and appropriate experience with computers. *Women and minorities are particularly encouraged to apply.* Send curriculum vitae, statement of research interests and conservation goals, relevant reprints, and name/address/telephone of at least three referees before 1 October 1991 to: **Search Committee, Department of Botany, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605-2496. Equal Opportunity Employer, M/F.**

POSITIONS OPEN



PIONEER.

ALLELIX CROP TECHNOLOGIES

a division of Pioneer Hi-Bred Production Ltd.,
located in the Toronto area, is seeking an

RFLP SCIENTIST

for their organization.

The candidate should possess the following qualifications: Education: Ph.D. in plant breeding or related science. Experience: 2 to 5 years of postdoctoral experience in managing plant RFLP programs in an industrial research laboratory or equivalent preferred; 1 to 3 years essential. The candidate should have had some experience in managing people within the industrial laboratory setting. Individual must have strong scientific knowledge in RFLP area particularly from the breeding side. Good organizational, communication, statistical, and computer data skills are also required.

Please submit résumés only by 5 July 1991 to:

Rose Nelmes, C.H.R.P.
Pioneer Hi-Bred Limited
P.O. Box 730

Chatham, Ontario N7M 5L1, Canada

Texas: The University of Texas Health Science Center at San Antonio (UTHSCSA) School of Dentistry, a progressive institution possessing a strong emphasis on clinical care and clinical and basic research, seeks an individual for the position of **CHAIR, DEPARTMENT OF PERIODONTICS**. The department has a strong commitment to clinical dentistry and basic research. This individual should have demonstrated a significant commitment to clinical dentistry, basic/clinical research, and progressive concepts of teaching at the undergraduate and postdoctoral levels. Intramural practice is available. *The University of Texas Health Science Center at San Antonio is an Equal Opportunity/Affirmative Action Employer.* Candidates should send curriculum vitae and letter of intent by 15 August 1991 to: **Stephen R. Matteson, D.D.S., Chair, Search Committee, Department of Dental Diagnostic Science, UTHSCSA, 7703 Floyd Curl Drive, San Antonio, TX 78284-7919.**

FISHERY POPULATION DYNAMICIST BIOSTATISTICIAN

CHIEF, Mid-Atlantic Offshore Fishery Resources Investigation. The Northeast Fisheries Center of the National Marine Fisheries Service is seeking a fishery population dynamicist-biostatistician for its Woods Hole, Massachusetts, laboratory. Duties of the position are to conduct and supervise research on factors influencing the dynamics of exploited fishery populations off the Northeast United States. The position requires substantial training and experience in quantitative population dynamics and statistics. Salary: \$44,348. Closing date for completed application is 10 July 1991. For application package, contact: **Ms. Kathryn McArthur, Eastern Administrative Support Center, NOAA, Personnel Division, Room 411, 253 Monticello Avenue, Norfolk, VA 23510. Telephone: 804-441-6880. The Department of Commerce is an Equal Opportunity Employer.**

DIRECTOR OF LABORATORY ANIMAL MEDICINE

ACLAM Board-eligible veterinarian sought to provide veterinary care and manage operations of AAALAC-accredited research animal facility, plan future development of facility to support expanding research effort, direct masters of laboratory animal science degree program, and facilitate interactions between research animal facility and research faculty. Opportunity for extensive collaboration with faculty in animal research projects. Substantial resources, competitive salary, excellent fringe benefits, and academic appointment available. Energetic, motivated candidates who have the desire, experience, and ability to shape the future of the university animal facility should send résumé and three references to: **Dr. Gary Aston-Jones, Hahnemann University Medical School, Mail Stop 403, Broad and Vine, Philadelphia, PA 19102.**

More than 150,000 people paid to see your ad in **SCIENCE**. Classified Advertising Department telephone: 202-326-6555. FAX: 202-682-0816.

POSITIONS OPEN

Silicon Graphics' bold strategy, high-performance workstations, and advanced color graphics technology have rocketed us to the forefront of the workstations market. We're currently seeking an experienced **COMPUTER AIDED CHEMISTRY/BIOLOGY (CACB) MARKET MANAGER**. Send us your résumé today, and make our unlimited potential your own!

CACB MARKET MANAGER

In this multifaceted position, you'll act as a leader and visionary in the use of graphics and parallel processing technology in Computer Aided Chemistry and Biotechnology. Specifically, you'll develop and execute strategies for the continued growth of the CACB marketplace. Responsibilities include: managing/developing relationships with software partners, overseeing marketing programs (university relations, advertising, trade shows, technical papers, brochures/newsletters), developing end-user accounts through account visits and professional relationships, and identifying product requirements and communications for Product Development.

We offer an excellent salary and benefits package. Please send your résumé to: **Silicon Graphics, Inc., Professional Staffing, Job #T-374, P.O. Box 7313, Mountain View, CA 94039-7313. Equal Opportunity Employer.**

SILICON GRAPHICS

CURATORIAL INTERNSHIP NATIONAL ZOOLOGICAL PARK SMITHSONIAN INSTITUTION

Provides experience in the daily management of an exhibit collection of exotic animals (mammals, birds, reptiles, amphibians, invertebrates) and experience in zoo administration, education, and conservation. Provides opportunity to conduct original research in a zoo.

Candidates must have a recent doctorate in life sciences, research or employment experience in zoology, environmental biology, or conservation, and a career interest in conservation, zoo administration, or conservation education.

Not to exceed 2 years, beginning 1 December 1991, at \$21,000 per year.

Send introductory letter, curriculum vitae, reprints, and three letters of reference by 15 August 1991 to: **Andrew J. Baker, Curatorial Intern Search Coordinator, National Zoological Park, Washington, DC 20008.**

All qualified candidates including handicapped individuals are invited to apply. The National Zoological Park, Smithsonian Institution, is an Equal Opportunity Employer.

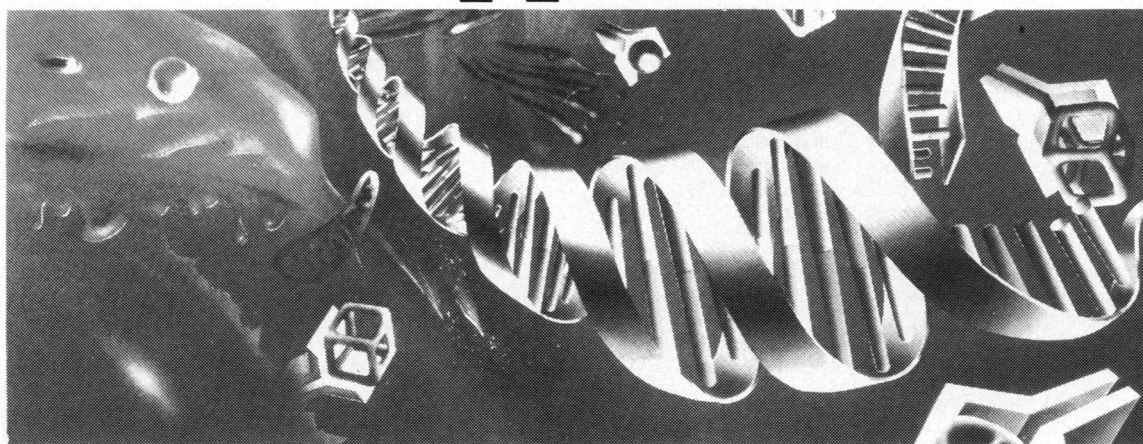
FACULTY POSITION MICROBIOLOGY AND IMMUNOLOGY

Applications for two tenure-track **ASSISTANT PROFESSORSHIPS** are invited from candidates with a background in virology, immunology, prokaryotic biology, and cell biology utilizing molecular and/or cellular technologies. The aims of the research programs should focus on the pathogenesis of infectious diseases and/or gene expression of normal and neoplastic cells. Candidates should possess a Ph.D. or M.D. with proven ability or high potential for an independently funded, productive research program. Send curriculum vitae, bibliography, and statement of research and teaching interests to: **John M. Lehman, Ph.D., Department of Microbiology/Immunology #A-68, Albany Medical College, 47 New Scotland Avenue, Albany, NY 12208.**

The Albany Medical Center is an Equal Opportunity/Affirmative Action Employer.

INSTRUCTOR. Department of Neurological Surgery, University of Virginia Health Sciences Center. Position available to direct an established neurovascular research laboratory. The candidate will be expected to have a high level of expertise in veterinary medicine and animal physiology. Qualified individuals must have a masters or higher degree and will be expected to direct a variety of neurosurgical studies. Send curriculum vitae and references to: **Dr. Kevin S. Lee, Department of Neurological Surgery, Box 420, University of Virginia Health Sciences Center, Charlottesville, VA 22908. The University of Virginia is an Affirmative Action/Equal Opportunity Employer.**

Career Opportunities



Oncogene Science is expanding its basic drug discovery and research product divisions in the application of oncogene technology to innovative product development. We currently have postdoctoral and staff scientist positions available in the following general areas:

Molecular Biology

- Gene Cloning
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- Pi Turnover
- Protein Kinases
- Calcium Mobilization

Production/Manufacturing

- DNA Probe Products
- Antibody Products
- Immunoassays

Protein Biochemistry

- Protein Purification
- Protein Characterization

Immunology/Immunochemistry

- Hematopoietic Factors
- Immunoassay Design
- Hybridoma Development

Cell Biology

- In Vitro Drug Evaluation
- Atherosclerosis

The company also has opportunities in its patent development program for Ph.D.s with a minimum of three (3) years' postdoctoral experience in molecular biology/drug discovery and/or research and diagnostic product development.

Oncogene Science is strategically located on Long Island with ready access to major academic institutions in the New York City metropolitan area.

Oncogene Science offers an excellent compensation and benefits package. Qualified candidates should send their resumes, including a list of publications and references to: **Oncogene Science, Inc., Human Resources Department, 350 Community Drive, Manhasset, New York 11030; Attn: CO.** An Equal Opportunity Employer.

**Oncogene
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Discover a bright future in the Analytical Sciences Department at the Sterling Research Group, the worldwide pharmaceutical research and development organization of Sterling Drug.

Principal NMR Scientist

We have a challenging opening for a broad-based Ph.D. level NMR Scientist with 5+ years' experience to start up and lead our expanding NMR Center. The successful candidate must be able to work with all of our discovery and development staff to recommend solutions to solve pharmaceutical problems.

You will be the key specialist on a team of NMR scientists working with, designing, and implementing leading-edge technology to elucidate molecular geometry. You will also work with analytical chemists and synthetic chemists to design and execute effective and efficient structure proofs. The selection and utilization of artificial intelligence to aid in structure determination will be part of your responsibility.

As a peer team player with biologists and chemists, you will design and execute cooperative experiments that each of you has an essential part to play in. You will play an integral role in moving us ahead of our competitors in areas key to the pharmaceutical industry by keeping up-to-date in NMR science.

You will discover that we offer a competitive salary and benefits package along with outstanding career opportunities.

To apply, please send your resume to: **GV-77-91, Sterling Research Group, 9 Great Valley Parkway, Malvern, PA 19355.** An Equal Opportunity Employer M/F/D/V.



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CHAIR

DEPARTMENT OF ANATOMY AND CELL BIOLOGY

The MEDICAL UNIVERSITY OF SOUTH CAROLINA in CHARLESTON has initiated a search for a Chairperson to lead its strong and well-funded Department of Anatomy and Cell Biology. The Department enjoys vigorous research programs in neurobiology, neuroendocrinology, and membrane and developmental biology. It is committed to a broad spectrum of educational responsibilities including undergraduate teaching, predoctoral and postdoctoral training programs, and has distinguished itself with numerous teaching and student research awards. Attractive and extensive laboratory space, intramural and extramural financial support, and new positions are available in an academic environment that provides outstanding opportunities for research initiatives in both the Department and in Interdisciplinary Centers (e.g., the Hollings Oncology Center, the Gazes Cardiac Center, etc.). In addition to the modern facilities within the Department, an expanding campus-wide Institutional Research Resource provides an array of analytical capabilities including quantitative image analysis, electron microscopy, DNA and peptide sequencing and synthesis, NMR, mass spectrometry, and other instrumentation for the conduct of research in molecular and structural biology.

Applications and nominations should include a curriculum vitae, summary of current research activities, a description of teaching and administrative experience, and the names, addresses and telephone numbers of three or more references. Applications will be reviewed until a satisfactory candidate has been chosen. Send replies to: Harry S. Margolius, M.D., Ph.D., Chairman, Anatomy/Cell Biology Search Committee, Room 612 Clinical Sciences Building, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.

*The Medical University of South Carolina is an
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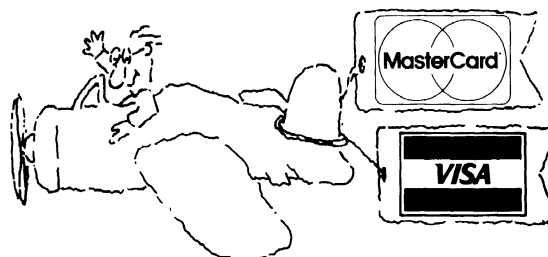
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Senior Pharmacologist Biochemist

Ph. D or post doctoral level

The successful candidate will have extensive experience in receptor binding techniques and autoradiography. Experience in industry is welcome but creativity and independence are more important. Experience with peptide receptors would be an advantage.

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Our Research Center is situated in the north of Lausanne near the Lake of Geneva, Switzerland.

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This research field will include studies on the processing and the application of oils and fats for foods, the screening of new oil sources and the assessment of physico-chemical behaviour of lipids.

Candidate should hold a Ph.D. in chemistry, food technology or food chemistry. 2 to 3 years experience in the oils and fats industry or equivalent would be desirable. Knowledge of English and French are of advantage.

Please send your application with curriculum vitae and references to Mr. Edgardo Brambilla, Personnel Services, Nestlé Research Center, P.O. Box 44, CH- 1000 LAUSANNE 26, Switzerland.

MOLECULAR BIOLOGIST

INTERESTED IN GENE EXPRESSION IN MAMMALIAN CELLS

The Surgery Branch of the National Cancer Institute has an immediate opening for a Senior Investigator to join its studies of the gene therapy of human cancer. This position involves a responsibility for studies of the introduction of genes into human lymphocytes and tumor cells using retroviral mediated gene transduction. The position involves responsibility for conducting independent research programs in this area and the supervision of junior scientists. Prior postdoctoral experience in molecular biology is required. Interested candidates should send a Curriculum Vitae and two letters of reference. For further information and application procedures, please contact:

Steven A. Rosenberg, M.D., Ph.D.

Chief, Surgery Branch

National Cancer Institute

National Institutes of Health

Public Health Service

Building 10, Room 2B42

9000 Rockville Pike

Bethesda, Maryland 20892

(301) 496-4164



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FACULTY POSITIONS IN BIOMACROMOLECULAR STRUCTURE

McMaster University is seeking highly qualified scientists to enhance its developing strength in the study of the structure and function of biologically relevant macromolecules. Up to three individuals will be appointed to tenure stream positions in the areas of (i) Protein crystallography, (ii) Enzymology and (iii) Protein engineering and folding as members of a Development group supported by the Medical Research Council of Canada. The appointees are expected to develop outstanding, independent research programs and promote cooperative scientific interactions as well as to participate in undergraduate and graduate teaching. Appointments will be in the Department of Biochemistry, with cross appointments to other departments as appropriate. McMaster has currently in place, state of the art x-ray diffractometer, electron microscope, NMR and molecular modelling facilities and a number of scientists working in the area of biomacromolecular structure and function. In addition to structural biochemistry, other current strengths are in gene expression, protein targeting, molecular virology, development and oncogenesis and inflammation.

Interested individuals should submit their curriculum vitae, brief statement of current research and future plans and the names of three referees to: **Dr. H. P. Ghosh, Chair, Department of Biochemistry, McMaster University, 1200 Main Street West, Hamilton, Ontario L8N 3Z5.** In accordance with Canadian immigration policy, this advertisement is directed to Canadian citizens or landed immigrants. Appointments subject to MRC approval. Fax 416-522-9033.

DIRECTOR, CENTER FOR INFECTIOUS DISEASES CENTERS FOR DISEASE CONTROL

CDC invites applications for the position of Director, Center for Infectious Diseases, Atlanta, Georgia.

This Senior Executive Service position is in the career civil service with an annual salary range of \$87,000-\$104,600. Physicians may also be eligible for a comparability allowance of up to \$20,000 per year.

The Director is responsible for planning and coordinating a national program for the prevention and control of acute and chronic infectious diseases. He/she serves as a principal resource for the Public Health Service for public health aspects of all infectious diseases.

Qualifications preferred include a doctoral degree (M.D., Ph.D., or equivalent), broad knowledge of public health programs related to the prevention and control of infectious diseases, and proven ability to provide administrative and scientific leadership for a multidisciplinary program employing over 1200 professional, technical, and administrative personnel.

Further information about the position may be obtained from Walter R. Dowdle, Ph.D., Search Committee Chair, Building 1, Room 2000, Centers for Disease Control, 1600 Clifton Road, Atlanta, GA 30333. Interested candidates may send their curriculum vitae and names of three professional references by July 31, 1991, to Nancy Peterson, Personnel Management Office, Centers for Disease Control, 1600 Clifton Road, Atlanta, GA 30333. Tel. (404) 639-1521.

CDC is an Equal Opportunity Employer and provides a smoke-free work environment. This is a drug testing designated position.

Career Opportunities in Japan

The Corporate Research Division of the Procter & Gamble Company has career opportunities for Japanese scientists to work on research programs in the area of bone and connective tissue. Candidates should have a Ph.D. or postdoctoral training in molecular biology, cell biology, protein chemistry, or a related discipline.

Applicants must be fluent in Japanese and must also have a good practical understanding of the English language. They will begin their careers in Cincinnati, Ohio at our Miami Valley Laboratories prior to transfer to Japan, where we are building a new technical center on Rokko Island, Kobe. Transfer to this center will coincide with its completion, now scheduled for early 1993. For non-Japanese citizens, employment is contingent upon being able to obtain a work visa from the Japanese government.

Procter & Gamble is a multinational, technically based company with \$21.4 billion in worldwide sales. We are engaged in the research, development, manufacture, and sale of consumer

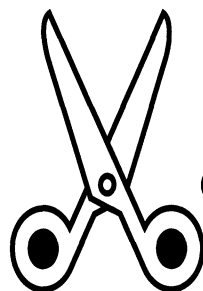
products in the health, beauty care, pharmaceutical, paper, laundry, food, and beverage areas. Last year our R&D budget was \$693 million.

If you meet these criteria and would like to explore career opportunities in a solid, growing international company, send your resume and publication list to:

**Dr. T. J. Logan, Manager
Ph.D. Recruiting, Box DLS2
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IG Labs began by initiating a major research program devoted to the study of genetic disease. Today, our large R&D group, backed by significant resources, is working to expand our technology base, focusing on new and promising genetic testing services.

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Ours is the first fully integrated prenatal genetic testing laboratory offering biochemical, DNA based, and both traditional and molecular cytogenetic tests. IG Labs is dynamic and growing with nearly 200 employees and laboratories throughout the East Coast.

IG Labs - exciting research and exact results.

IG Laboratories offers an excellent benefits package including incentive stock options, 401(k) plan with a company match, and medical, dental, vision and life insurance. Please forward your resume to: **Vice President, Human Resources, IG Laboratories, Dept. S621, One Mountain Road, Framingham, MA, 01701.** An equal opportunity employer

Director, Diagnostic Assay Development

Lead our efforts in the commercial development and implementation of new hybridization based diagnostic assays. Project responsibilities involve close interaction with basic research scientists and clinical laboratories, completion of clinical trials, and technology transfer to our service labs, as well as managing a group of 5-6 scientists. Will also evaluate new diagnostic methodologies and identify and assess new technology opportunities.

Requires a PhD in Biochemistry or Molecular Biology, 5+ yrs' experience, and extensive skills in contemporary molecular biology techniques including cloning, library screening, hybridization, FiSH, and PCR. Strong analytical, communication, and project/people management skills are essential. Industry experience preferred.

Molecular Genetics

We seek creative scientists at several levels to join our programs in human gene mapping and the molecular biology of human genetic diseases, development of assays for the detection of genetic diseases, and isolation of fetal cells from maternal blood. Qualifications include a PhD, post-doctoral experience, and expertise in human gene mapping techniques such as PFGE, linkage analysis, FiSH, and molecular biology techniques.

Post-doctoral Fellow

Participate in ongoing research in human gene mapping, and the molecular biology of human genetic disease. Applications are invited from highly motivated individuals with training in molecular biology or biochemistry. Duration of appointment is expected to be 2 years.

Research Associates

We also have several positions for talented individuals with a BS/MS and molecular biology experience in the areas of YACs, cloning, library screening, PCR and FiSH.



RESEARCH MANAGER, MARINE BIOLOGY

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in marine environmental biology. The sponsored research is conducted principally at universities and private laboratories, with research performed by leading scientists in the field. This is a Civil Service position at the GM-13, 14 or 15 level (\$44,348 - \$80,138), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of marine environmental biology with an emphasis on the biochemistry and molecular biology of marine organisms and the regulatory role of environmental factors. The incumbent will identify new research opportunities, evaluate and select research proposals for funding, manage funding resources, communicate ONR's interest to the scientific community and represent the program within the Navy and DoD. This position provides the challenge and opportunity to have a creative and significant impact on the direction and quality of research conducted at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have a Ph.D. or equivalent training in marine biology with emphasis on molecular biology or molecular biology with emphasis on marine biology, and at least one year of professional experience OR an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade level in the Federal Service. Demonstrated research experience is strongly preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the following address), to: **OFFICE OF THE CHIEF OF NAVAL RESEARCH, Civilian Personnel Division, OCNR Code 01242, Attn: Announcement #91-28 (S), 800 North Quincey Street, Arlington, VA 22217-5000.**

Applications will be accepted through 16 September 1991 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (703) 696-4705.

U.S. Citizenship Required

An Equal Opportunity Employer

Managers/ Department Heads

California Biotechnology Inc., a leading biotechnology company engaged in developing novel human therapeutics, has outstanding opportunities in the following areas:

Development Pharmacology and Toxicology

Qualified candidates must have a Ph.D. in Pharmacology, Toxicology or Physiology and at least 5 years of experience in both project and staff management. Candidates will also have expertise in the evaluation and design of pharmacology and toxicology studies, be able to assess pre-clinical programs for completeness, coordinate and direct consultants and contract laboratory work. Familiarity with FDA requirements for NDA or PLA submissions is required and experience with cardiovascular and renal indications is preferred. Additional responsibilities will include establishing GLP compliance in our AAALAC facility, preparing annual USDA, OPRR and AAALAC reports, and IACUC participation. This position reports to the Director of Preclinical Development. You will manage a staff of 5-6 research associates and animal care technicians. Excellent team, communication, and written skills are required.

Research Pharmacology

Qualified candidates must have a Ph.D. in Pharmacology or Physiology and 5 years of experience. At least 2 years of management experience, preferably in industry is also required. Candidates will have expertise in a wide variety of in vivo models with specific experience in cardiovascular, neurobiological and/or endocrine physiology. Experience and participation on IACUCs and with NIH and AAALAC requirements is preferred. This position reports to the Director of Preclinical Development. You will manage and direct a staff of 3 Ph.D.s and 3 research associates. This is a hands-on position which involves developing creative scientific approaches including in vivo models, surgical procedures and statistical needs for testing potential human therapeutics. Interpersonal, team skills and excellent organization skills are required.

We offer a stimulating work environment and an outstanding compensation/benefits package. To apply, please send or fax your resume to: CALIFORNIA BIOTECHNOLOGY INC., Human Resources Dept. CK/AP, 2450 Bayshore Parkway, Mountain View, CA 94043. FAX: (415) 968-2438. An Equal Opportunity Employer.

CAL BIO

POSITIONS OPEN



Agricultural
Research
Service United States
Department of
Agriculture

MICROBIOLOGIST. Virology Cattle Research Unit, National Animal Disease Center, Ames, Iowa.

ARS is seeking a **MOLECULAR VIROLOGIST** to develop tests for detection of virus contamination in meat and meat products. Candidate must have knowledge of basic molecular biology techniques and the skill and ability to operate instruments used in those techniques, knowledge and skills in cell culture methods, and the ability to isolate and identify pathogenic viruses. Ph.D. is desirable. *Must be U.S. citizen.* Salary is commensurate with experience (\$31,116 to \$57,650 per annum). For information on the research program and position, contact: **Dr. Janice Miller, 515-239-8474.** For information on application procedures/forms, contact: **Janie Carr, 301-344-1258.** Applications in response to this advertisement should be marked **1N062.** Applications must be postmarked by 28 August 1991. Mailing address:

**USDA, ARS, Personnel Operations Branch
Room 325, 6305 Ivy Lane
Greenbelt, MD 20770**

NSERC WOMEN'S FACULTY AWARD IN PLANT BIOLOGY UNIVERSITY OF ALBERTA DEPARTMENT OF BOTANY

The Department of Botany, University of Alberta, invites applications for an NSERC Women's Faculty Award, an award directed toward Canadian citizens and landed immigrants living in Canada or abroad. We are interested in individuals with a strong commitment to excellence in teaching and research, and who will develop an active research program to complement existing strengths in the department. We are prepared to sponsor an applicant in any area of plant biology.

The University of Alberta is committed to the principle of Equality in Employment. The university encourages applications from aboriginal persons, disabled persons, and members of visible minorities. Interested applicants should submit a résumé, a statement of research interests, the names of three referees, and three copies of up to five published papers that best exemplify the candidates' interests. Completed applications should be mailed to: **Dr. Gregory J. Taylor, Chairman, Positions Committee, Department of Botany, University of Alberta, Edmonton, Alberta T6G 2E9, Canada.** Review of applications will begin 1 August 1991.

FACULTY POSITIONS IN MICROBIOLOGY

The Department of Biology at Texas A&M University seeks to complement and strengthen its established research programs in microbiology and invites applications for two tenure-track faculty positions. Candidates should be using bacterial, viral, or eukaryotic microbial systems to study fundamental biological problems at the genetic, cellular, or molecular level. Successful applicants will have strong records of research accomplishment; the ability to develop vigorous, extramurally funded research programs; and active interest in the training of undergraduate and graduate students. Please send curriculum vitae, a statement of research experience and research plans, and three letters of reference to: **Dr. Michael Manson, Department of Biology, Texas A&M University, College Station, TX 77843.** Applications should be submitted by 1 September 1991, but those received after that date will be considered until the positions are filled.

Texas A&M University is an Affirmative Action/Equal Opportunity Employer. Minority candidates are especially encouraged to apply.

MOLECULAR NEUROBIOLOGY

POSTDOCTORAL RESEARCH POSITION. At Harvard Medical School, Mailman Research Center, available immediately for a Ph.D. scientist with background and/or interest in molecular biology and biochemistry to work on the molecular neurobiology of innervation and synapse formation. The research is basic neuroscience with relevance to CNS injury and aging.

Please send curriculum vitae and the names of three references to: **Dr. S. Bursztajn, McLean Hospital, Mailman Research Center, 115 Mill Street, Belmont, MA 02178.** An Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION IN PHARMACEUTICS STATE UNIVERSITY OF NEW YORK (SUNY) AT BUFFALO

We are seeking candidates for a tenure-track **ASSISTANT OR ASSOCIATE PROFESSOR** in biopharmaceutics, drug metabolism, pharmacokinetics, or pharmacodynamics. Ph.D. plus suitable postdoctoral experience required. The successful applicant is expected to establish an independent research program and participate in departmental instruction. Apply by 31 July 1991 with curriculum vitae, three letters of reference, and a summary of research interests to: **Dr. H.-L. Fung, Chair, Pharmaceutics, Cooke Hall, SUNY, Buffalo, NY 14260.** The university is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST (Ph.D.). To participate in drug mechanism and pharmacology studies as part of a large collaborative preclinical and clinical research program with Memorial Sloan Kettering Cancer Center, involving biochemical modulation in cancer therapy. Candidate should have proven expertise with HPLC technology, nucleic acid metabolism, and enzyme analysis. Generous laboratory space, equipment, and technical support will be provided. Excellent salary and fringe benefits. Interested candidates should submit a letter of application, current curriculum vitae, list of publications, and names, addresses, and telephone numbers of at least three recent references to: **Daniel S. Martin, M.D., Cancer Research Laboratories, Catholic Medical Center, 89-15 Woodhaven Boulevard, Woodhaven, NY 11421.**

PATCH-CLAMP. Position available at new Minneapolis Veterans Administration (VA) Medical Center. Funding through the University of Minnesota. Applicants must have experience in patch clamping. Ph.D. or M.A. preferred. Salary commensurate with experience. The successful candidate will join an energetic and innovative group involved in pulmonary and systemic vascular research. The laboratories are well equipped and funded. The position is available from mid-July. There are opportunities to develop own research interests. Please send curriculum vitae to, or call: **E. Kenneth Weir, M.D., Professor of Medicine, VA Medical Center (111C), One Veterans Drive, Minneapolis, MN 55417.** Telephone: 612-725-2000, ext. 3654. FAX: 612-725-2016. The University of Minnesota is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available September to study the reflex control of the circulation in humans; particular emphasis is placed on the neurogenic active vasodilator system in the cutaneous circulation. Qualifications: Ph.D. in physiology or pharmacology, M.D. or equivalent. Please submit curriculum vitae with names and addresses of three references to: **John M. Johnson, Ph.D., Department of Physiology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756.** Telephone: 512-567-4334. University of Texas Health Science Center is an Affirmative Action/Equal Opportunity Employer.

A POSTDOCTORAL POSITION is available for an individual with expertise in molecular biology or protein chemistry. This research focuses on molecular and cellular mechanisms of activation and signal transduction by bacterial endotoxin and other inflammatory mediators leading to eicosanoid and cytokine production. The studies involve molecular biology and protein purification techniques. Send curriculum vitae and names of three references to: **Dr. James A. Cook, Professor of Physiology, Medical University of South Carolina (MUSC), 171 Ashley Avenue, Charleston, SC 29425.** MUSC is an Equal Opportunity Employer.

POSTDOCTORAL POSITION MICROBIAL ECOLOGY

A 2- to 3-year postdoctoral position is available immediately to study microbial ecology/genetics at the University of Georgia's Savannah River Ecology Laboratory. The successful candidate will be part of a team investigating ecology/ecological genetics of native aquatic bacteria. Experience in molecular biological techniques needed. *Applicants must be United States citizens.* Salary: \$27,000. Send curriculum vitae and three letters of reference by 25 July 1991 to: **Dr. J. Vaun McArthur, Savannah River Ecology Laboratory, Drawer E, Aiken, SC 29802.**



Push the boundaries of biotechnology.

At Genentech, our commitment to R&D starts with finding the top scientific talent and continues with the annual return of 40% of revenues back into R&D — \$670 million over the last decade — and just keeps building. In fact, we've got a new R&D facility scheduled to open in 1992. If you'd like to share our commitment to good science, join us in one of the following opportunities.

Research Assistant/Associate

This is an exceptional opportunity for a Research Assistant/Associate in our Cell Analysis lab within the Department of Cell Biology. You will be involved in the operation of various cell sorters, image analyzers and additional analytical instrumentation in support of new product development throughout R&D. This requires at least five years of experience utilizing analytical cytology including extensive experience in cell biology techniques. The ideal candidate will have strong communication and computer skills. Dept. YSGR.

Research Assistant/Pathology

The scope of this position will be to investigate pathogenic mechanisms of toxicological effects of recombinant molecules and methods to evaluate efficacy of these products in animal models. Requires a BS/MS in a Biological Science and at least 6 years' experience in the field. Preference will be given to an individual with broad experience in morphologic procedures such as electron microscopy, morphometry, immunohistochemical staining and in situ hybridization. Dept. NSTT.

Research Assistant/Associate

You will generate and characterize novel monoclonal antibodies in our Hybridoma group. This involves interacting with R&D groups to produce and characterize monoclonal antibodies to novel recombinant therapeutic proteins. Requires a BS/MS and two years of relevant work experience in at least one of the areas of mammalian cell culture, assay development and hybridoma technology. Dept. NSBF.

Research Associate

As a member of our Pharmaceutical R&D team, you will conduct studies to characterize therapeutic proteins, assess their compatibility with pharmaceutical excipients and develop stable formulations. This requires a BS/MS in Physical Chemistry, Biochemistry or Analytical Chemistry and at least a year of experience with proteins and analytical biochemistry techniques. Dept. LSRA.

Fermentation Engineer

You will apply fundamental engineering concepts to design, optimize and test equipment for unit operations such as cell/liquid separations, cell inactivation, fermentor design, sterile operation of fermentation equipment, sterile feed control systems and computer controlled fermentation operations. Additionally, you will serve as a resource and provide hands-on efforts during the plant design, scale-up and troubleshooting processes. An MS/PhD in Chemical or Mechanical Engineering and at least 7 years of related experience are required. Dept. LSFE.

Pharmaceutical Process Development Engineer

You will plan, organize and conduct projects in the process research and development of microencapsulation, liposome fabrication, spray coating and other pharmaceutical techniques for recombinant protein products. A BS/MS with at least five years' pharmaceutical industry experience or a PhD in Chemical Engineering, Pharmaceutical Technology or Bioengineering are required. Dept. LSPE.

Senior QC Specialist

We are seeking a Senior QC Specialist for our QC Technical/Chromatographic Services department. You will assume responsibility for the development, qualification and validation of analytical methods for use in Genentech's QC laboratory. Additionally, you will investigate and resolve analytical problems, transfer and refine new assays and interface with various departments companywide.

The qualified candidate will possess in-depth knowledge of HPLC, spectrophotometry and protein purification techniques. A BS/MS in Analytical Chemistry or Biochemistry and at least 5 years' pharmaceutical experience are required. A PhD with a year of related work experience is preferred. Dept. NCPR.

Genentech offers an extensive benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities and free health club membership. For immediate consideration, please send your resume, indicating Dept. of interest, to Genentech, Inc., Human Resources, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

Genentech, Inc.

POSITIONS OPEN

POSTDOCTORAL POSITIONS: MOLECULAR BIOLOGY OF TUMOR VIRUSES. Available 1 September 1991 to join in the study of (i) mechanisms of transformation by SV40 large T antigen (e.g., *MCB* 5, 3577; *Oncogene Res.* 4, 303), and (ii) regulation of mRNA 3' end formation in adenovirus and HIV (*MCB* 9, 4951; *MCB* 11, 1624). We use molecular and biochemical approaches towards understanding the biology of these viruses. Salary is negotiable. Send curriculum vitae and names of three references to: **Michael J. Imperiale, Ph.D., Department of Microbiology and Immunology, University of Michigan, Box 0620, Ann Arbor, MI 48109.**

CIRCADIAN RHYTHMS AND PINEAL

POSTDOCTORAL POSITION. Available to study the mechanisms of regulation, generation, and expression of circadian rhythms. Recent emphasis has been on the melatonin rhythm in primary cultures of chick pineal cells using pharmacologic and biochemical approaches. Stipend ranges from \$25,000 to \$57,000, depending on training and experience. Full federal benefits package is usually available, depending on appointment mechanism. Send curriculum vitae, a brief description of research background and interests, and a list of three references to: **Dr. Martin Zatz, SBP, LCB, National Institute of Mental Health (NIMH), 9000 Rockville Pike, Building 36, Room 2A-17, Bethesda, MD 20892. NIMH is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION IN MOLECULAR AND CELLULAR BIOLOGY. Position available to study the mechanisms controlling tissue plasminogen activator production in human endothelial cells. Studies of interest include: identification of the signal transduction pathways involved, transcriptional and post-transcriptional regulation, and extracellular matrix-integrin-cytoskeletal mediated effects. Applicants should have experience in cell and/or molecular biology and biochemistry. Send curriculum vitae and the names of three references, to: **Eugene O. Levin, Ph.D., Department of Molecular and Experimental Medicine, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037. Affirmative Action/Equal Opportunity Employer.**

A position at the **POSTDOCTORAL LEVEL** is available beginning in September or October of 1991 at the Cornell University Graduate School of Medical Sciences for an individual interested in studying the regulation of neural development by peptide growth factors and/or retinoic acid (see *Current Opinion in Cell Biology* 2, 1050-1057; *JCB* 113, 1173). Experience in molecular biology or protein chemistry and background in the neurosciences are desirable. The position carries an appointment in both the Department of Neurology and Neuroscience and the Department of Cell Biology and Genetics. Please send curriculum vitae, a statement of research interests, and the names of three references to: **Dr. John A. Wagner, c/o Ms. Ann Frey, Department of Neurology and Neuroscience, The New York Hospital-Cornell University Graduate School of Medical Sciences, A 569, 525 East 68th Street, New York, NY 10021. Equal Opportunity/Affirmative Action Employer, M/F/H/V.**

TWO POSTDOCTORAL POSITIONS AVAILABLE IMMEDIATELY

- **Position One:** To study protein tyrosyl kinases. Excellent opportunity to join a multidisciplinary cooperative drug discovery group including industry and several universities. Research involves signal transduction mechanisms, purification of recombinant enzymes, along with inhibition and inactivation kinetics.
- **Position Two:** Involves research on the effects of cytokines on the CNS. Project areas include behavioral, microdialysis, and autoradiographic studies of cytokine-induced alterations in neurotransmitter and neuropeptide systems. The department offers ample opportunities to study patients receiving cytokines for neurochemical correlates of CNS side effects. Salary competitive and dependent upon experience, excellent fringe benefits.

Send curriculum vitae and three letters of recommendation to: **Raymond J. A. Buddie, Ph.D., for Position One and Beng T. Ho, Ph.D., for Position Two at the Department of Neurooncology, Box 100, University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**

POSITIONS OPEN

POSTDOCTORAL POSITION. To study molecular aspects of brain microvessel differentiation. Present interests include cell-cell signaling, second messengers and transport systems with flexibility in new investigations. Send curriculum vitae and three references to: **Gary Goldstein, M.D., Blood-Brain Barrier Laboratory, Kennedy Research Institute, Johns Hopkins Medical Institutions, 707 North Broadway, Baltimore, MD 21205. Equal Opportunity Employer. Smoke-free facility.**

POSTDOCTORAL POSITION. Available immediately to participate in the development of a procedure for the cryopreservation of *Drosophila melanogaster* embryos by vitrification [see *Nature* 345, 170-172 (1990)]. Applicants with experience in insect development are preferred; training in cryobiology is not required. Send résumé and names of three references to: **Dr. Peter L. Steponkus, 609 Bradfield Hall, Cornell University, Ithaca, NY 14853 before 1 August 1991. An Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF CALIFORNIA SAN FRANCISCO POSTDOCTORAL POSITION

We seek a Ph.D. or M.D. with electron microscopy and immunocytochemistry training to work on cell biology and transgenetics of prion diseases. Experience in EM crystallography and knowledge of rodent and human nervous systems are preferable. Superb EM facilities available. Applicants should be U.S. citizens or permanent residents. NIH training grant stipend level (\$18,600 to \$32,800) depends upon previous experience. Send curriculum vitae and three letters of recommendation to: **S. B. Prusiner, University of California, San Francisco, CA 94143-0518. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.**

POSTDOCTORAL POSITIONS MOLECULAR BIOLOGY ROGER WILLIAMS MEDICAL CENTER BROWN UNIVERSITY

Two postdoctoral positions available immediately to join a research team studying the biology of human B cell growth in response to immune cytokines. Research will focus on the pathogenetic evaluation of lymphomas from immunocompetent or immunodeficient hosts, biochemical characterization of recombinant human B cell growth factor-12kD (BCGF-12kD), transcription factors involved in the regulation of BCGF-12kD, and BCGF-12kD expression in transgenic mice. Candidates should have experience in molecular biology and/or immunology.

Please send curriculum vitae, a brief description of research interests, and names and addresses of three references to:

**Dr. Surendra Sharma
Section of Experimental Pathology
Department of Pathology
Roger Williams Medical Center-Brown University
825 Chalkstone Avenue
Providence, RI 02908**

POSTDOCTORAL POSITION. Available 1 July 1991 for a **BIOCHEMIST, MOLECULAR BIOLOGIST, OR ENZYMOLOGIST** to investigate the mechanism of allosteric regulation of and repression by L-lysine of key enzymes in the pathway of L-lysine biosynthesis in thermophilic, methylotrophic *Bacillus* species. This work will continue an existing project using site-specific mutagenesis and lysine analogue resistance to investigate the lysine and threonine binding sites on isozymes of aspartokinase. Biochemical, genetic, and protein structure approaches are being considered. This work may also include investigation of the regulation of other key enzymes in the pathway of lysine biosynthesis in bacilli. Experience in enzymology, protein purification, molecular biology, gene transfer in Gram-positive microorganism, and FPLC desired. One to two years dependent on funding and evaluation of performance. Salary negotiable. Send curriculum vitae, copies of recent publications, and letters of recommendation to: **Professor Michael C. Flickinger, Director, Institute for Advanced Studies in Biological Process Technology, University of Minnesota, 1479 Gortner Avenue, St. Paul, MN 55108. Telephone: 612-624-9706. The University of Minnesota is an Equal Opportunity Educator and Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION

A postdoctoral position is available for an M.D. or Ph.D. with a strong background in cellular immunology to study the pathogenesis of insulin-dependent diabetes. (See *Scientific American*, July 1990, pp. 62-77.) The research will focus on in vitro and in vivo analysis of T lymphocytes responsive to B cell autoantigens and induction of experimental tolerance. Send curriculum vitae with names of three references by 15 July 1991 to:

**Noel K. Maclaren, M.D.
Department of Pathology and Laboratory Medicine
University of Florida
Box 100275
Gainesville, FL 32610-0275
FAX: 904 392-6249**

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Medical
Center**

ASSISTANT RESEARCH SCIENTIST

A Postdoctoral opportunity is available in the laboratory of Dr. Rochelle Hirschhorn, Division of Medical Genetics. Candidate must have interest in human genetics and molecular biology. Prior involvement in this area is preferred.

You'll receive an excellent salary and benefits package. Please send curriculum vitae to Ms. Singh, Professional Recruiter, 550 First Avenue, New York, NY 10016. EOE, M/F.

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Stiftung des öffentlichen Rechts

**Professorship (C4)
for
Toxicology**

The Deutsche Krebsforschungszentrum will appoint a scientist jointly with the Faculty for Theoretical Medicine at the University of Heidelberg. The successful applicant will be head of a research division.

Applicants with an outstanding scientific record and experience in the field of chemical carcinogenesis and/or experimental chemotherapy are invited to send their applications including c. v., bibliography and other relevant information by 12 July 1991 to:

Vorsitzender des Stiftungsvorstands,
Deutsches Krebsforschungszentrum,
Im Neuenheimer Feld 280,
D-6900 Heidelberg 1, Germany.

Postdoctoral Position in Signal Transduction

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has a postdoctoral position available immediately for an independent and highly motivated scientist with experience in molecular biology to study signal transduction by the epidermal growth factor receptor and cell cycle dependent regulation of the activities of protein kinases and phosphatases.

Ongoing work includes: 1) the role of phosphorylation of the EGF receptor in regulation of receptor function; 2) characterization of effector proteins involved in intracellular signalling by growth factor receptors; 3) the role of serine/threonine specific protein kinases in intracellular signalling; 4) involvement of EGF-dependent proteolytic processing of the EGF receptor in receptor function.

This position represents an opportunity to participate in projects with potential applicability to other problems in molecular biology, cell biology and biochemistry. Candidates should be recent Ph.D. graduates with a strong background in molecular biology.

Compensation includes a competitive salary, an attractive benefits package and relocation assistance. **Send CV and list of references to PARKE-DAVIS, Human Resources, Box JDM-0048, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"**

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PARKE-DAVIS

A DIVISION OF **WARNER
LAMBERT**

MRC

Medical Research Council
Medical Research Council
Laboratory of Molecular Biology
**TENURE-TRACK POSITIONS IN
STRUCTURAL BIOLOGY**

The Structural Studies Division invites applications from independent scientists to develop a programme of basic molecular research. Protein/nucleic acid interaction, cellular motility and the functioning of membrane receptors, pumps and channels are topics of particular interest, but other areas will also be considered.

Successful applicants will join the present Divisional staff of 26 scientists working on a wide variety of topical and long term problems in structural molecular biology. An excellent range of shared biochemical facilities, instrumentation, computing and workshops is available.

Salary will be at an appropriate point on the MRC non-clinical scientific scale (equivalent to the University Academic scale).

Further information can be obtained from Dr. Richard Henderson Tel: (0223) 402215 or Dr. Nigel Unwin (0223) 402410.

Applications including CV, a brief description of research interests and the names and addresses of two professional referees should be sent by Friday 30 August 1991 quoting the reference SS/2296 to:

The Personnel Officer
MRC Centre
Hills Road
Cambridge
CB2 2QH
UK

The Medical Research Council is an Equal Opportunity Employer.

DERMATOLOGY

Postdoctoral Research Associate Molecular Biologist/Biochemist

Hoffmann-La Roche, an established leader in the pharmaceutical industry, has an excellent opportunity in our Dermatologics Division, which has on-going programs related to skin photoaging, acne, psoriasis and hair growth.

You will have the opportunity to apply methods of recombinant DNA technology to problems involving the action of retinoids on the repair of photodamaged skin. Qualifications include a PhD in Biochemistry, Cell Biology or Pharmacology. Demonstrated expertise in molecular biological techniques along with a working knowledge of the biochemistry and physiology of skin desirable.

Roche offers a research environment encouraging scientific growth. Interested individuals should send a curriculum vitae indicating past, current and future research interests to: **Mrs. Jane Jusinski, Roche Dermatologics, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



Hoffmann-La Roche

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Colorado



BIOTECH, INC.

**METABOLIC
PATHWAY
ENGINEERING**

Coors BioTech, Inc., a Colorado biotechnology company with interests in vitamins and other specialty chemicals for the food and feed ingredients market, has immediate openings for qualified scientists in our Fort Collins Research facilities. We are seeking innovative, highly motivated scientists to work as key members of multi-disciplinary teams in an entrepreneurial environment.

Microbial Physiologist

This position requires a Ph.D. in Microbial Physiology and 1-2 years postdoctoral experience. Candidates must have demonstrated expertise in studying the regulation of metabolic pathways, and a strong background in biochemistry. The successful individual will work in our Fermentation Microbiology group with responsibilities for developing fermentation processes in collaboration with other scientists.

Microbial Geneticists

We have an opening in our Molecular Genetics groups for a Ph.D. with 1-2 years postdoctoral experience and demonstrated expertise in microbial genetics and strain selection strategies, especially with myceliated bacteria or fungal systems. Experience with genetic engineering of metabolic pathways is desirable for this position.

We also encourage scientists with BS/MS degrees and 2-4 years relevant experience in applied laboratories to apply for a Research Associate opening.

Our research facilities are located in Fort Collins, an attractive university community convenient to the outstanding recreational opportunities available in Colorado. Coors BioTech offers a competitive compensation and benefits package, as well as the opportunity to live in the affordable Rocky Mountain region.

Please send your resume in confidence to:

Coors BioTech, Inc.
Personnel #LA91-A
6204 South College Avenue
Fort Collins, Colorado 80525

Equal Opportunity Employer



CENTER FOR
ADVANCED
BIOTECHNOLOGY
AND
MEDICINE

**Postdoctoral Research Fellow:
Transcriptional Regulation in the
Nervous System**

Highly motivated postdoctoral researchers sought to study the regulation of gene expression in the developing nervous system of mouse. Specific areas of interest include:

- (i) Characterization of the DNA binding and transcriptional activities of neuronal-specific transcriptional regulatory proteins.
- (ii) Identification and characterization of the regulatory elements that control the expression of neuronal target genes.

The CABM is a newly established molecular biology research institute with state-of-the-art facilities available. Interested candidates should send CV and arrange to have three letters of reference sent to:

Dr. Cory Abate
CABM
679 Hoes Lane
Piscataway, NJ 08854

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Jointly Administered by the University of Medicine and Dentistry of New Jersey and Rutgers, The State University of New Jersey

**SENIOR BIOCHEMICAL
PHARMACOLOGIST**

The Laboratory of Clinical Studies; National Institute on Alcohol Abuse and Alcoholism; Public Health Service; Alcohol, Drug Abuse, and Mental Health Administration, invites applications for one biochemical pharmacologist to carry out studies on the pathophysiological actions of alcohol on transmembrane flux and receptor and genomic components of neuronal signal transduction, especially factors involved in the *trans*-regulation of gene transcription. The position is offered, depending on the experience of the applicant, at a salary range of \$32,000 to \$45,234. Applicants must have a Ph.D. or M.D. Submit a curriculum vitae and three letters of recommendation to:

Mr. Michael Yuter
Personnel Management Branch
NIAAA, ADAMHA
Building 31, Room 1B54
9000 Rockville Pike
Bethesda, MD 20892

The position is available now and the deadline for receipt of materials is July 12, 1991.

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Our Research Center is situated north of Lausanne near the Lake of Geneva, Switzerland.

We are offering a

POSTDOCTORAL FELLOWSHIP IN XENOBIOTICS

For a period of two years.

The aim of this project is to develop chemical methods of assessing DNA damage by food contaminants for human risk evaluation. Responsibilities require elucidation of routes of metabolism of contaminants responsible for toxicity, chemical syntheses and analytical methods for measuring DNA adducts. Application of these methods to in vitro cell culture systems and in vivo for monitoring DNA damage.

The successful candidate holds a Ph.D in toxicology or related science and a strong background in organic and analytical chemistry, for developing methods of human biomonitoring and risk evaluation. Knowledge of xenobiotic metabolism and experience with methods of measuring DNA damage, such as 32P postlabelling, are also desirable.

Please send your application with curriculum vitae and three names for reference purposes to Mr. Edgardo Brambilla, Personnel Services, Nestlé Research Center, P.O. Box 44, CH- 1000 LAUSANNE 26, Switzerland.

GENSIA PHARMACEUTICALS, INC. is discovering and developing drugs for the treatment and diagnosis of cardiovascular and CNS diseases. Continued growth has created openings in cardiovascular research for scientific investigators and research associates.

Candidates should have an MS or PhD in physiology, pharmacology or related field with skills or training in:

- cardiovascular pharmacology
- isolated organ and tissue pharmacology
- models of cardiovascular disease

Previous industrial experience is preferred, but not essential.

We offer a competitive salary and benefits package including incentive stock options. For consideration, please send a resume with a cover letter to Human Resources Dept., (SI) Gensia Pharmaceuticals, Inc., 11025 Roselle St., San Diego, CA 92121-1204.



GENSIA.
PHARMACEUTICALS, INC.

Equal Opportunity Employer

SCIENTISTS AND POSTDOCTORAL FELLOWS IN NEUROBIOLOGY

REGENERON PHARMACEUTICALS is making rapid progress in the basic understanding of neuronal growth factors and how these proteins can treat degenerative and traumatic neurological disorders. Recent discoveries have increased the need of the Neurobiology Department for scientists with interests and skills in the areas of receptor pharmacology, neurochemistry, and animal behavior.

SCIENTIST positions require a Ph. D. and extensive experience and publications in either of these areas. Experience with animal models of central or peripheral nerve disease, traumatic injury, and neuronal plasticity is desired.

POSTDOCTORAL positions require skills and interests in at least one of the above areas and a strong desire to conduct research on recently discovered neurotrophic factors.

REGENERON's modern facility is located on an expansive wooded campus in Westchester County, 20 miles north of Manhattan. The highly collaborative and supportive Regeneron community offers considerable growth potential at the scientist and post-doctoral levels. Please send your resume indicating the relevant position and your immediate career goals to:

**Ms. Carol Deaken, Bin IV,
REGENERON PHARMACEUTICALS, INC.
777 Old Saw Mill River Road
Tarrytown, NY 10591-6707**
Equal opportunity employer.

REGENERON
Pharmaceuticals, Inc.

Alkermes, Inc. is a neuropharmaceutical company developing products for the treatment of diseases of the central nervous system. We are presently searching for an individual to fill the following position:

PHARMACOKINETICIST

Your responsibilities will entail managing preclinical and clinical pharmacokinetic studies, including protocol design, interpretation of results, and preparation of reports for regulatory (FDA) submissions. In addition, you will participate in the design and evaluation of animal efficacy studies.

You should have a Ph.D. in pharmacokinetics or a related discipline, and at least 2 to 4 years' experience with pharmacokinetics in a pharmaceutical or biotechnology industrial setting. Good communication skills, both verbal and written, are essential.

This position offers an excellent salary, stock option, and benefits package in a stimulating environment with an opportunity to make a major contribution. For consideration, please send your CV, including references in confidence to: **Dr. Carol Gloff, Director of Product Development, Alkermes, Inc., 26 Landsdowne Street, Cambridge, MA 02139-4234.** An Equal Opportunity Employer.



Alkermes, Inc.

Announcement and call for abstracts for

International Conference on Advances in AIDS Vaccine Development:

Fourth Annual Meeting
of the
National Cooperative
Vaccine Development
Groups for AIDS

October 15-19, 1991
Marriott's Marco Island Resort
Marco Island, Florida

Sponsored by:



Vaccine R&D Branch
Basic R&D Program
DAIDS, NIAID, NIH



To receive conference registration and abstract submission information, please call or write to:



Terry MacGillivray
c/o Technical Resources, Inc.
3202 Tower Oaks Blvd.
Rockville, MD 20852
(301) 770-3153
FAX (301) 468-2245

Deadline for abstract submission and
conference registration is **August 15, 1991**

Post Doctoral Research at The Wistar Institute

The Wistar Institute, an independent research organization located on the campus of the University of Pennsylvania, is currently seeking Post doctoral applicants interested in cancer-oriented research. Wistar has maintained a reputation for pioneering work and ground-breaking accomplishments since its founding nearly 100 years ago.

Fellows can anticipate a stimulating and challenging experience in the tradition of strong interdisciplinary collaboration within an environment utilizing state-of-the-art biotechnology. Wistar's general areas of research interest include: Molecular Oncology, Molecular Virology, Cell & Developmental Biology, Tumor Biology & Immunology, Cell & Molecular Immunology and Structural Biology.

Interested applicants are requested to send a Curriculum Vitae and the names of three references to: **Coordinator of Research Training, THE WISTAR INSTITUTE, 36th & Spruce Streets, Philadelphia, PA 19104.**

THE
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MEDICAL DEVICES TECHNOLOGY ASSESSMENT

At Eli Lilly and Company, we rely on a team of high-caliber professionals to help us identify, develop, and manufacture superior quality health care, diagnostic and animal health products. Our Medical Devices and Diagnostics Division is now seeking experienced individuals to become involved in our expanding efforts in technology assessment.

Bring us your expertise and help support our worldwide reputation for quality health care. A Ph.D. in Biomedical Engineering or the equivalent with strengths in mechanical engineering, mechanical design and materials, an emphasis on cardiovascular physiology, and 3+ years experience in a medical device environment are required.

The selected candidate will:

- Evaluate technical aspects of novel medical devices owned by outside interests. This technology assessment process will typically include the following:
 - Assist in the design of *in vitro*, *in vivo*, and clinical studies;
 - Evaluate device function;
 - Conduct, review, and interpret experimental studies;
 - Conduct site visits to evaluate prospective opportunities;
 - Review and interpret scientific literature;
 - Assist in the review of patents.
- Recommend to management opportunities involving the acquisition and licensing of medical technologies.
- Work in a multi-disciplinary environment, interacting with business development, legal, research, manufacturing, marketing, regulatory, and clinical personnel.
- Manage research projects conducted at universities, outside companies, and contract facilities.

In addition to unprecedented programs for professional growth, we provide attractive salaries and benefits. For consideration, please send a cover letter with resume and salary requirements to: Timothy S. Krupa, Medical Devices and Diagnostics Division, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285. Equal Opportunity Employer.

Lilly

Commitment to Excellence

SENIOR NEUROPHARMACOLOGIST

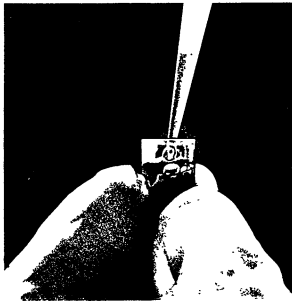
The Laboratory of Clinical Studies; National Institute on Alcohol Abuse and Alcoholism; Public Health Service; Alcohol, Drug Abuse, and Mental Health Administration, invites applications for a senior neuropharmacologist to study the effects of ethanol on brain neurotransmitter systems, in addition to neurochemical modulation of glucose metabolism. Demonstrated expertise with microdialysis and behavioral pharmacology is essential, with related publications in referred journals. Additional skills required include: HPLC, receptor binding and radioenzymatic assays, chronic arterial and venous cannulations, and rodent electroencephalographic recording. Previous experience in alcohol and psychotropic drug research is strongly preferred. The position is offered, depending on the experience of the applicant, at a salary range of \$32,000 to \$45,234. Applicants must have a Ph.D./M.D. or equivalent. Submit a curriculum vitae and three letters of recommendation to:

**Mr. Michael Yuter
Personnel Management Branch
NIAAA, ADAMHA
Building 31, Room 1B54
9000 Rockville Pike
Bethesda, MD 20892**

**The position is available now and the deadline for
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The track record of original research and discoveries by the scientists at the Janssen Research Foundation is impressive by any standard. Our efforts have resulted in more than 82,000 original molecules and an array of new pharmaceutical products that include IMODIUM®, NIZORAL®, SUFENTA®, HISMANAL®, ALFENTA® and ERGAMISOL®. Many more are in the pipeline, and it's that penchant for innovation that has created an outstanding opportunity for **Clinical Research Associates**.

Working in small teams, you'll be involved in ongoing drug studies. Current areas of interest include anesthesiology, gastroenterology, psychotherapy, mycology, parasitology, cardiology, oncology, allergy and immunology. And **Medical Writers, Biostatisticians**, and professionals in **Regulatory Affairs** and **Professional Services** will find exciting opportunities at

the Janssen Research Foundation as well.

For the clinical professional, few organizations can match the advantages at the Janssen Research Foundation. Research and development is the mainstay of all we do, and as a member of the Johnson & Johnson Family of Companies, we offer a progressive environment, opportunities for advancement, competitive salary and superlative benefits, including our on-site wellness center.

We are planning to move to our state-of-the-art facilities currently under construction in scenic Washington Crossing, NJ in early 1992. If you'd like to bring your innovative ideas to an organization that will appreciate them, send your resume with salary history in confidence to: the Janssen Research Foundation, Employment Office Box S691, 40 Kingsbridge Road, Piscataway, NJ 08855-3998. An Equal Opportunity/Affirmative Action Employer M/F/H/V.

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RESEARCH
FOUNDATION**

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AIR FORCE OFFICE OF SCIENTIFIC RESEARCH EXCITING OPPORTUNITIES IN RESEARCH MANAGEMENT

The Directorate of Life Sciences, Air Force Office of Scientific Research is seeking experimental biologists and psychologists for 1-2 year positions as program advisors under the Intergovernmental Personnel Act to assist in developing and managing basic research programs in the life sciences. The Directorate of Life Sciences currently manages ongoing basic research programs in neuroscience, chronobiology, sensory and perceptual systems, cognitive science, toxicology and environmental science. In addition to these programs, we are interested in exploring new program areas within the life sciences, as well as, multidisciplinary programs forging links with other areas such as chemistry, physics, mathematics, and electronics.

Candidates for these positions must have a Ph.D. in an appropriate area of biological or psychological science, have experience in conducting independent research and experience or at least a strong interest in research management and shaping broad national basic research programs to address Air Force research needs. Individuals would be appointed under the Intergovernmental Personnel Act, and thus must currently be employed by an academic institution, another government agency, or certain nonprofit organizations. Location of assignment is Bolling Air Force Base, Washington, DC.

The Air Force Office of Scientific Research (AFOSR) is the Air Force's single manager for basic research. An extramural program of grants or contracts, primarily to academic institutions, comprises 70% of the research effort with another 30% going to support basic research programs in Air Force laboratories.

Please send curriculum vitae to: Dr. William O. Berry
Director of Life Sciences
AFOSR/NL
Bolling AFB, DC 20332-6448
Tel: (202) 767-5021

POSITIONS OPEN

POSTDOCTORAL POSITIONS MOLECULAR PARASITOLOGY

Positions available on NIH-funded projects to study a novel RNA virus and an unusual episome-like DNA in leishmanial parasites. Details will be sent upon inquiry. Send curriculum vitae, brief statement of research experience and interests, and three letters of recommendation to: **Dr. Kenneth Stuart, Seattle Biomedical Research Institute and University of Washington, 4 Nickerson Street, Seattle, WA 98109-1651. Equal Opportunity Employer.**

POSTDOCTORAL FELLOW. Position available at Case Western Reserve University School of Medicine. Research area involves cell biology and biochemistry of aging steroidogenic cells. Applicant must have expertise in one or more of the following areas: cell culture, protein and mRNA expression, colloidal gold-labeling, and electron microscopy. Salary commensurate with applicant's experience. Send curriculum vitae, names and addresses of two references, and pre- or reprint(s) demonstrating such experience to: **Professor Jerome Kowal, Veterans Hospital-K219, Cleveland, OH 44106.**

POSTDOCTORAL FELLOWSHIP MOLECULAR BIOLOGY APPLIED COMPUTER SCIENCE

Fellowship available in the Biostatistics Department of Dana-Farber Cancer Institute/Harvard University School of Public Health. Must have recent Ph.D. in molecular biology, molecular genetics, or computer science. Research centers on the problems of comparative sequence analysis and identification of sequence patterns which will involve collaboration with active experimental molecular biologists and computer software developers. Send curriculum vitae and three letters of reference to: **Dr. Temple Smith, MBCRR, LG-127, 44 Binney Street, Boston, MA 02115. Affirmative Action/Equal Opportunity Employer.**

YALE UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF THERAPEUTIC RADIOLOGY

POSTDOCTORAL FELLOWSHIP. Exciting opportunity for Ph.D. with background in molecular biology, protein biochemistry, or immunology and an interest in vascular biology or cell motility to join a vascular and tumor cell biology laboratory at Yale Medical School. Currently, we are studying the mechanism of action of a unique new cell motility factor. *Applicants must be U.S. citizens or permanent residents.* Please send curriculum vitae to: **Dr. Eliot M. Rosen, Department of Therapeutic Radiology, 132 HRT, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

POSTDOCTORAL RESEARCH ASSOCIATE. Position available July 1991 to study presynaptic receptors and signaling pathways which govern the release of autonomic neurotransmitters in the eye. Background in molecular pharmacology, second messenger systems, phosphoprotein analysis, and HPLC desirable. Send curriculum vitae and names of three references to: **James E. Jumblatt, Ph.D., Department of Ophthalmology and Visual Sciences, University of Louisville, Louisville, KY 40292. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE. Work will involve lipid metabolism which includes isolation and analysis of phospholipids and sterols by thin layer chromatography (TLC), high-pressure liquid chromatography (HPLC), mass spectroscopy, and NMR spectroscopy. It will also involve phospholipase A purification. Viral genetics involving different kinds of mutagenesis is also part of the project. Requires a Ph.D. degree in biochemistry; one publication on lipid analysis and its metabolism in which such techniques as TLC, HPLC, mass spectroscopy, and NMR spectroscopy are used; and one publication on protein purification, especially phospholipase A purification. Salary: \$25,000 per year; 40 hours per week, 8:30 a.m. to 5:00 p.m. *Must have proof of legal authority to work permanently in the United States.* Send résumé and reprints of publications to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: Mary Millea, Ref. #V-IL-2699-M. No calls. An Employer-paid ad.**

POSITIONS OPEN

POSTDOCTORAL POSITION MOLECULAR BIOLOGY

Three positions are available immediately to study (1) protein kinase C-mediated signal transduction, (2) retinoic acid-regulated gene expression, and (3) cellular retinoic acid-binding proteins (CRABPs) and gene regulation in human skin. The aims of the research are: (position 1) to investigate the functional specificities and regulation of expression of individual PKC isozymes known to be expressed in human skin cells, (position 2) to identify and characterize early retinoic acid-inducible genes in human skin by differential and subtractive library screening, and (position 3) to investigate the regulation and function of CRABP proteins and genes in human skin and cultured cells. Candidates should be familiar with molecular biology techniques including molecular cloning, cell transfection, and in situ hybridization. These positions offer excellent opportunities for career development in a highly productive, multidisciplinary environment. Salary is commensurate with experience and competitive. Send curriculum vitae, indicating position of interest, to: **Dr. John J. Voorhees, Professor and Chairman, University of Michigan, Department of Dermatology, 1301 East Catherine, Kresge I, R6558, Ann Arbor, MI 48109-0528.**

POSTDOCTORAL RESEARCH ASSOCIATE. Available immediately to study the effects of toxicants on epithelial cell differentiation and gene expression. Ph.D. required; background in cellular and molecular biology desirable. Send curriculum vitae and three references to: **Dr. Ellen A. Rorke, Department of Environmental Health Sciences, Case Western Reserve University (CWRU), School of Medicine, 2109 Adelbert Road, Cleveland, OH 44106-4940. CWRU is an Affirmative Action/Equal Opportunity Employer.**



MICROBIOLOGIST PHYSIOPATHOLOGY RESEARCH UNIT NATIONAL ANIMAL DISEASE CENTER (NADC)—AMES, IOWA

ARS is seeking a **POSTDOCTORAL RESEARCH ASSOCIATE** to participate as a team member in its research program on salmonellosis. The primary objectives of this project are to understand the pathogenesis of salmonellosis in swine, to apply molecular biology to develop improved diagnostic procedures, and vaccination strategies for control and eradication of the carrier population.

The candidate must have experience in immunology, biochemistry, pathogenic microbiology, and molecular biology.

Ph.D. is required. Salary is commensurate with experience (\$31,116 to \$48,481). For information on the position, contact: **Dr. Paula J. Fedorka-Cray, Physiopathology Research Unit, NADC, or 515-239-8672.** For information on application procedures/forms, contact: **Janie Carr at 301-344-1258.** Applications in response to this advertisement should be marked **IN063.** Applications must be postmarked by 28 August 1991. Mailing address:

**USDA, ARS, Personnel Operations Branch
6305 Ivy Lane, Room 325
Greenbelt, MD 20770**

An Equal Opportunity Employer.

HOWARD UNIVERSITY RESEARCH ASSOCIATE

Research associate position available for the area of immunoparasitology. Candidate must have a Ph.D. in zoology with specialization in parasitology. Candidate should have demonstrable capability and research interest in immunobiology of flagellated protozoan and helminth infections. At least 3 years of postdoctoral experience in cellular and molecular immunoparasitology is required. Major responsibilities will include supervision of an active research program in trypanosomiasis. The candidate will be expected to conduct a research program involving graduate students and the teaching of immunoparasitology to graduate students. Applicants should submit a copy of their curriculum vitae and the names of two references to: **Dr. Clarence M. Lee, Acting Dean, College of Liberal Arts and Sciences, Howard University, Washington, DC 20059. Equal Opportunity Employer.**

POSITIONS OPEN

TUMOR BIOLOGY CAREER SCIENTIST POSITION DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY MAYO FOUNDATION

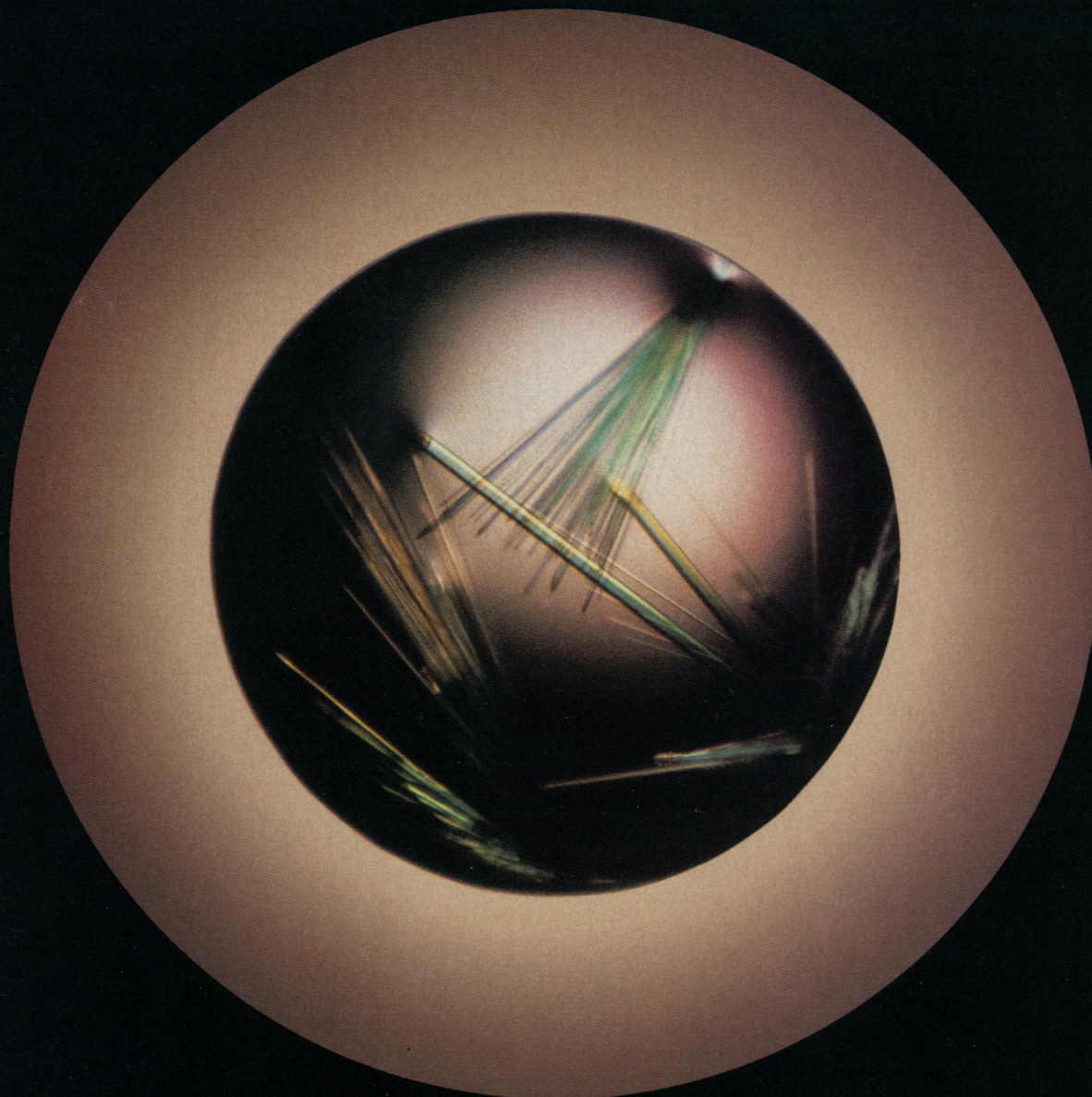
Applications are invited for a full-time career scientist staff position in tumor biology. Preference given to candidates with interest in growth factor/receptors and regulation of cell growth. Excellent facilities, support and research environment available for an established or highly promising research investigator. Level of appointment commensurate with qualifications. Send curriculum vitae, brief statement of research interest, and names of three references to: **Tumor Biology Search Committee, 920 Hilton Building, Mayo Foundation, Rochester, MN 55905. Mayo Foundation is an Affirmative Action/Equal Opportunity Employer.**

NMR SCIENTIST. Develop nuclear magnetic resonance (NMR) imaging and spectroscopic technologies for biomedical applications. Determine performance of transplanted organs using in vivo volume-localized NMR techniques. Ph.D. required in physics or chemistry. Must know: Bruker BIOSPEC system softwares and hardware; latest technology for volume selective in vivo spectroscopy and high field imaging; software-hardware adjustments of localization sequences. Salary: \$30,000 per year. Submit résumé to: **Pittsburgh East Job Service, 6206 Broad Street, Pittsburgh, PA 15206. Refer to Job Order No. 4441276.**

RESEARCH ASSOCIATE. For state university in southwestern Ohio. Conduct research in surface electrochemistry involving original experiments, data analysis and sophisticated theoretical calculations. Investigates and characterizes adsorbed molecular layers or thin films on solid (metal and semiconductor surfaces) by surface-sensitive photon spectroscopies (Fourier transform infrared spectroscopy and Raman spectroscopy), electron spectroscopies (Auger electron spectroscopy, low energy electron diffraction, electron energy loss spectroscopy, electron microscopy, and electron spin resonance spectroscopy) in ultrahigh vacuum and electrochemical techniques. Work will be directed toward determining the bonding mode of representative types of chemical compounds, surface structure, orientation, electrocatalytic activity, and electron-transfer mechanism. Job requires Ph.D. in chemistry and 1 year of experience as a research assistant (chemistry). Must have 1 year of experimental experience in (i) surface Fourier transformed infrared spectroscopy, surface-enhanced Raman and resonance Raman spectroscopy, electron microscopy, electron spin resonance spectroscopy, and thin-layer electrochemistry; (ii) surface electrochemistry including characterization of surface bonding and structure and investigation of electrocatalysis and electron transfer mechanisms (which may be gained during or after degree). Must have at least one graduate-level course in each of the following: Solid-state physics and electronic instrumentation. Forty hours per week, 8:00 a.m. to 5:00 p.m. Salary: \$23,142 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **S. Holten, JO#1099780, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH SCIENTIST, BIOPHARMACEUTICAL. Design and implement methodology to develop technologies to deliver functional genes in vivo for therapeutic pharmaceutical applications. Identify relevant genes to be cloned. Manage cloning program. Participate in development of relevant models for testing of delivery of purified genes into animals. Supervise laboratory assistants. Requires: M.S. in veterinary microbiology, Ph.D. in biochemistry, plus 4 years of experience in job offered or as postdoctoral fellow. Prior experience: cloning and sequencing cytochrome P-450 and glutathione-S-transferase genes expressed in the liver; somatic gene therapy involving the construction of retroviral vectors for introducing human alpha-globin and beta-globin genes into mouse bone marrow cells and the isolation of cells lines which produce ecotropic virus which release helper-free recombinant retroviruses containing globin genes; regulation of FOS gene expression and CREB protein transcription; and identification of transcription activation domains in MyoD. Full-time, \$45,000 per year. Job site and interview in San Diego, California. Send this ad and résumé to: **Job #AM7289, P.O. Box 9560, Sacto, CA 95823-0560 no later than 5 July 1991.**

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RESEARCH SCIENTISTS

Natural Product Sciences, Inc. is a rapidly growing company developing novel pharmaceutical and agrochemical products based on natural product leads. With a strong in-house research program comprising chemistry, biology, and molecular biology and major industrial partners in both pharmaceuticals and agrochemicals, Natural Product Sciences is a leader in the natural products field.

As part of the continuing expansion of its research efforts, NPS now has openings for highly motivated **Molecular Biologists** with demonstrated skills in recombinant expression. Hands-on experience in molecular virology, baculovirus expression or expression in mammalian cells is particularly desirable. Applicants at all levels will be considered for Associate or Senior Scientist positions.

Natural Product Sciences offers competitive salaries, benefits and the opportunity for equity ownership. Our location on the western slope of the Rocky Mountains provides an unusually beautiful and livable environment in which to pursue innovative and important science.

Please send curriculum vitae and names and addresses of three references to: **Director of Personnel, Natural Product Sciences, Inc., 420 Chipeta Way, Salt Lake City, UT 84108.** Natural Product Sciences is an equal opportunity employer.



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RESEARCH SCIENTISTS

PANLABS is expanding its U.S. laboratory staff. We have opportunities for scientists with a demonstrated record of scientific innovation and independence. Positions available:

Ph.D. - Senior Chemist (Position #60)

Opportunity for a chemist to establish a core analytical/synthesis service function within a modern biotechnology laboratory. The range of projects runs from purification and structure determination of secondary metabolites to synthesis of model substrates for enzyme studies. Requirements for the position are: hands on experience in synthetic organic chemistry; mastery of chromatographic separations, including small molecules and proteins; experience with spectroscopy systems in structure determination of secondary metabolites; previous experience in Natural Products Chemistry desirable. The successful candidate will have a broad background in organic chemistry with demonstrated excellence as a scientist and manager.

Ph.D. - Senior Scientist: Biochemist/Cell Biologist (Position #61)

Opportunity for scientist with demonstrated success in developing and implementing cellular, receptor and enzyme assays for drug discovery. The successful candidate will have a Ph.D. in the Life Sciences or Chemistry and assume a leadership role in all aspects of initial drug discovery projects. Position involves the selection of relevant biochemical/cellular targets, development and validation of target assays, technology of high throughput screening, data handling and interpretation, and staff management. Significant opportunities exist for career advancement in scientific project management.

Candidates should have good supervisory and communication skills, publication record, and a strong desire to work with a team.

PANLABS is a growing U.S. based international company that has provided R&D services to pharmaceutical companies and the fermentation industry worldwide for 20 years. Located in the high tech corridor north of Seattle, PANLABS offers competitive salaries and benefits. Submit CV with names and phone numbers of three references to:

PANLABS, INC.
Attn: Human Resources Manager
11804 North Creek Parkway South
Bothell, Washington 98011-8805

PANLABS

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Rhone-Poulenc Inc. is a rapidly growing subsidiary of one of the largest chemical/agrochemical companies in the world. This Mammalian Toxicologist vacancy is at our Research Triangle Park, North Carolina campus.

The successful candidate will assist in establishing and maintaining mammalian toxicology programs on new and existing products of our agricultural chemical company. Responsibilities include protocol design, monitoring of contracted studies, consultation with business groups and interaction with state and federal regulatory groups. A Ph.D. in Toxicology or a related discipline is required with a minimum of three (3) years of contract laboratory, industrial, or regulatory experience. Excellent oral and written communication skills are essential. The ability to interact successfully with a number of internal and external publics is critical as well.

We offer a competitive compensation and benefits package. If you possess the qualifications and experience above and would like to be considered for this vacancy, please send your resume, including salary history and requirements, to:

Dr. Glenn S. Simon
Director of Toxicology

Rhone-Poulenc
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Research Triangle Park, NC 27709

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This position will study the roles of **cyclic nucleotide phosphodiesterases** as regulators of cellular reactivity. The successful applicant will be responsible for establishing novel methodologies to investigate the function of specific phosphodiesterase isozymes in intact and broken cell preparations. A Ph.D. in pharmacology, biochemistry, immunology or a related field is required. Candidates with prior experience investigating second messenger signal transduction pathways are encouraged to apply. Experience in enzyme purification and kinetics, radiological binding assays, inflammatory cell pharmacology, and cell culture are desirable.

Wyeth-Ayerst offers a dynamic publication-oriented research environment and an excellent salary and benefits. Interested candidates should submit their curriculum vitae with an indication of their date of availability to: **Wyeth-Ayerst Research, Personnel Manager, Position #325, CN 8000, Princeton, NJ 08543-8000**. Equal Opportunity Employer, M/F/H/V responses encouraged. Principals Only.



RESEARCH OPPORTUNITIES EXPERIMENTAL HEMATOPOIESIS

Amgen is committed to the development of human therapeutics based on the principles of Cellular and Molecular Biology. Our continued success has led to an expansion of our exploratory research efforts in Hematopoiesis. As a result, we are actively seeking scientists to contribute to the development of research programs leading to the identification, characterization, and cloning of novel hematopoietic growth factors.

RESEARCH SCIENTISTS Department #590

Candidates for Research Scientist positions must have a PhD and a minimum of two years' relevant post-doctoral experience in expression cloning of cellular growth or differentiation factors. Expression in mammalian systems and experience with retroviral vectors is highly desirable.

RESEARCH ASSOCIATES Dept. #591

Research Associate candidates must have a BS or MS in an appropriate discipline and a minimum of two years' experience in human and rodent bone marrow culture, including the identification of hematopoietic cells by cytological and immunological methods. Experience in enrichment and purification of progenitor cell types is highly desirable.

Amgen offers a stimulating and challenging research environment in which scientists are provided the resources necessary to achieve their potential. Our compensation and benefits package also reflects our commitment to attracting the best scientific talent available.

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University of North Carolina
at Chapel Hill
MOLECULAR TECHNIQUES FOR
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October 28–November 15, 1991

A general course focusing on the application of modern molecular biological techniques to genome analysis. Participants will learn procedures including the isolation of plasmid and human genomic DNA, Southern blotting to single copy sequences in complex genomes, restriction fragment length polymorphism (RFLP) analysis, cloning of polymerase chain reaction (PCR) products, sequencing of cloned DNA fragments, direct sequencing of PCR products, and as time permits, other applications of PCR. Tuition is \$1,950.

Instructors:

Rosann Farber, Ph.D. UNC-CH
 Nobuyo Maeda, Ph.D. UNC-CH
 Katherine High, M.D. UNC-CH

YEAST MOLECULAR GENETICS
March, 1992

Students will be introduced to the genetics and molecular biology of the yeast *Saccharomyces cerevisiae*. Specific techniques that will be used include: yeast transformation, rescue of plasmids from yeast, yeast crosses, tetrad analysis, complementation of yeast mutations, isolation of DNA from yeast, OFAGE analysis of yeast chromosomes, and the use of PCR to diagnose genomic alterations. Among other experiments, we will attempt to identify and isolate the yeast genes that are functional homologues of genes from other organisms (including humans). Tuition is \$1,950.

Instructors:

Thomas Petes, Ph.D. UNC-CH
 Kerry Bloom, Ph.D. UNC-CH
 Elaine Yeh, Ph.D. UNC-CH

Future Carolina Workshops
 Transgenic Mice—Summer, 1992
 Molecular Approaches to Gene Expression Summer, 1992

CAROLINA WORKSHOPS are a series of intensive hands-on laboratory courses designed to teach cutting edge methods in molecular biology. The techniques include basic manipulations such as isolation of insert and vector DNA, ligations, electrophoretic analysis and elution from gels, blotting techniques, preparation and labeling of probes, identification of cloned DNA, and protein purification. Each course provides experience in the basic techniques which serve as a solid background in molecular biology. Each individual course has an identifiable theme and emphasizes in addition to the general techniques, specialized techniques such as DNA sequencing, in vitro mutagenesis, cDNA synthesis, expression vectors or protein/immunological techniques.

Many applicants to the Carolina Workshops already hold the M.D. or Ph.D. degree. Our courses are very heavy on hands-on contact with the protocols, light on lectures concerning the basics. Hence, a reasonable familiarity with the concepts behind DNA and protein techniques such as those found in good texts (e.g. *Principles of Gene Manipulation* by R. W. Old & S. B. Primrose, Blackwell Scientific Publications, 1989) is necessary to get a good yield from these courses. Experience with running these courses for eight years now indicates that both students with and without any prior hands-on experience with molecular techniques find these courses useful. Experienced students benefit from in-depth interaction with the instructors; novices learn the realities behind the innocent looking protocols. The result obtained in the Carolina Workshops can be considerable. In a recent In Vitro Mutagenesis workshop one student designed, tested and used a mutagenic oligonucleotide to generate three site-directed mutants. Another student, who had trouble producing mutants before the course, attained success within two weeks after the course.

To apply, send a curriculum vitae and a brief letter describing your research interests and their relevance to the Workshop for which you apply. Applicants should contact the program office as soon as possible. Please indicate your complete mailing address and telephone/fax number. Full consideration will be given to applications received for the "Human/Mammalian Genome Analysis Workshop" by **SEPTEMBER 1**, or "Yeast Workshop" by **FEBRUARY 1, 1992**.

For further information or to apply, contact:

Dr. Wayne Litaker, Facility Director
 University of North Carolina at Chapel Hill
 Program in Molecular Biology & Biotechnology
 402 Taylor Hall CB 7100 S
 Chapel Hill, North Carolina 27599-7100
 TELEPHONE (919) 966-1730, FAX (919) 966-6821

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RESEARCH SCIENTISTS

Immunotoxicology

Responsible for initiating preclinical in-vitro and in-vivo immunological safety studies for our therapeutic products. The ideal candidate will be familiar with animal studies such as contact sensitivity and cell proliferation assays. Requires a Ph.D. with experience in allergy, immunotoxicology research, animal hypersensitivity studies or assessing adverse immune reactions.

Monoclonal Antibody Development

Produce and characterize monoclonal antibodies to cell surface markers and glycoproteins. Research will require candidate to immunize animals, perform cell fusions and cell cultures, develop and perform screening assays, and purify and characterize candidate monoclonal antibodies. Requires a Ph.D. with 2-3 yrs' experience in the production and characterization of monoclonal antibodies.

Please send your resume to: Human Resources, Dept. S621, Genzyme Corporation, One Mountain Road, Framingham, MA 01701.

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RESEARCH ASSOCIATES

Cell Biology

We currently have two positions available in our cell biology group. The successful candidates will conduct applied and basic research on protein targeting and mechanisms of cell-cell interactions for development of new therapeutics. A BS/MS in Cell Biology or a related field with 3-7 years' experience in either performing antibody-, receptor-, and cell-based assays, and growing and maintaining cells in culture or working with animals, evaluating biodistribution data by immunohistochemical and biochemical techniques, and transfecting mammalian cells, is required.

Please send your resume to: Human Resources, Dept. S621, Genzyme Corporation, One Kendall Square, Cambridge, MA 02139.

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Late-Breaking Science

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- Transplantation
- CF 101
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- Pseudomonas Adherence Mechanisms
- Diagnosis of Respiratory Pathogens
- Non-epithelial Expression Systems for Structure/Function Analysis
- Gene Transfer
- Controversies in Nutrition
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- Localization, Function & Endogenous Metabolism of CFTR
- Eating Behaviors
- Regulation of Virulence Factors of *P. aeruginosa*
- GI Issues

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Contributed papers will be presented in poster form. Also featured will be 32 workshops and roundtable discussions on more than 60 topics. Conference proceedings will be published as a supplement to *Pediatric Pulmonology*.

A multidisciplinary conference for researchers, physicians, and allied health professionals on the latest advances in cystic fibrosis (CF) research and care.

Presented by the Cystic Fibrosis Foundation (CFF).



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Short Course Tuition: \$100 per person, per course
Pre-registration Deadline: September 3, 1991
For more information, please contact the CFF.

POSITIONS OPEN

ENVIRONMENTAL TOXICOLOGIST

The Bureau of Environmental Response and Remediation is seeking a staff toxicologist. The position will provide technical and administrative support to the Superfund and Underground Storage Tank Branches. Duties will include the review and generation of toxicological documentation used to support risk-based decision-making. Primary skills required include a sound understanding of the principals and applications of environmental toxicology and risk assessment, and an ability to communicate and summarize complex issues. For further information, contact Daniel Symonik at 801-538-6338.

RESEARCH ASSOCIATE. Ph.D. in biochemistry, physiology, entomology or related discipline for interdisciplinary research on the role of arachidonic acid metabolism in salivary glands of ixodid ticks. Excellent laboratory facilities in a pleasant medium-size community with nearness to large cities. Starting salary: \$23,000 per annum plus fringe benefits. Send résumé and names and addresses of three references to: Dr. John R. Sauer, Department of Entomology, Oklahoma State University, Stillwater, OK 74074-0464. An Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE BIOMOLECULAR ELECTRONICS AND NANOSTRUCTURES BECKMAN INSTITUTE FOR ADVANCED SCIENCE AND TECHNOLOGY

Applications are solicited for participation in a multi-disciplinary research effort devoted to the research and development of biological macromolecules as the building blocks for a new generation of electro-optical devices (see *New Scientist*, 18 May 1991, p. 24). Experience in at least one of the following general areas is required: genetic engineering materials science, laser spectroscopy, atomic probe microscopies, semiconductor physics, or quantum optics. Salary commensurate with experience. U.S. citizenship required. Send curriculum vitae and three letters of recommendation to: Professor Stephen G. Sligar, Departments of Chemistry, Biochemistry, and Biophysics, 1209 West California Street, Urbana, IL 61801.

RESEARCH ASSOCIATE POSITION INVOLVING ELECTRON MICROSCOPY DEPARTMENT OF MOLECULAR GENETICS AND CELL BIOLOGY THE UNIVERSITY OF CHICAGO

A research associate position is available in the area of transgenic mice as models for the study of human diseases. The laboratory has extensive expertise in molecular biology and transgenic mouse technology. We are searching for an accomplished electron microscopist to participate in these and other studies. Knowledge of embedding/sectioning of tissues and immunoelectron microscopy is desirable. Long-term employment is possible, and Ph.D. is desirable, but not essential. Salary is excellent and commensurate with experience. Please send curriculum vitae and three references to: Dr. Elaine Fuchs, Howard Hughes Medical Institute, Department of Molecular Genetics and Cell Biology, The University of Chicago, 5841 South Maryland Avenue, Box 391, Chicago, IL 60637. An Affirmative Action/Equal Opportunity Employer.

RESEARCH AND DEVELOPMENT CHEMIST

Conduct research projects aimed at developing novel, advanced performance chemicals and/or processes for the paper, cosmetics, personal care, household products, plastics, additives, anodized aluminum, and industrial and institutional products industries. Design and conduct synthesis, purification, analysis, characterization, evaluation, modification, and formulation of a wide range of organic materials. Requires Ph.D. degree in organic chemistry and either bachelor's or master's degree in biochemistry. Ph.D. emphasis must have been in synthesis, reaction mechanism, and physical organic chemistry. Also requires at least 3 years of experience with organic syntheses via biocatalysis and enzyme kinetics in the job offered or as a postdoctoral research scientist. Salary: \$40,980 per year; 40+ hours per week, 8:00 to 5:00, Monday through Friday. Apply to: Job Service, 500 West Trade Street, Charlotte, NC 28202. Reference: Job Order #NC 2605497.

POSITIONS OPEN

STAFF RESEARCH ASSOCIATE. Position in the University of California, Los Angeles (UCLA), Department of Obstetrics and Gynecology. Requires master's of science in biology, or higher degree or equivalent, with 2 years of surgical technique experience. Research experience in gynecology and molecular biology also required. Projects involve the study of gene expression and regulation of early preimplantation embryos using RT-PCR and Northern and Southern blot analysis. Clinical research involves surgical specimens and chart reviewing of patients. Salary: \$28,400 per year. Please send curriculum vitae, statement of interests, and references to: Dr. T. C. Wu, 27-177 CHS, Department of Obstetrics/Gynecology, UCLA, Los Angeles, CA 90024-1740.

RESEARCH SPECIALISTS

Emory University is currently seeking entry and advanced level research specialists to fill various openings. Entry level positions require bachelor's degree in related science field and advanced level positions require master's degree or bachelor's degree and 2 years of related experience. Qualified applicants should submit résumé with attached list of techniques in which you have experience to: Emory University Human Resources Department, 637 Asbury Circle, Atlanta, GA 30322. An Equal Employment Opportunity/Affirmative Action Employer.

IMMUNOCHEMIST AND IMMUNOLOGIST. National Cancer Institute, National Institutes of Health (NIH), Public Health Service, is seeking applicants for the following positions: **IMMUNOCHEMIST:** To work closely with molecular biologists and immunologists to define new strategies and methodologies for the radiolabeling and analysis of novel genetically engineered forms of immunoglobulins and Ig-like molecules. Preference for at least 3 years of postdoctoral training. **IMMUNOLOGIST:** To analyze and define the hosts' immune response in antitumor active immunotherapy systems using recombinant vaccinia constructs, peptides, etc., and study the interactions of various effector cell populations with novel recombinant forms of Ig's; will also interact with molecular biologists in gene therapy experiments. Preference for at least 3 years of postdoctoral training. Salary commensurate with experience. Please submit curriculum vitae, bibliography, and names of three references to: Dr. Jeffrey Schlom, Laboratory of Tumor Immunology and Biology, National Cancer Institute, Building 10, Room 8B07, NIH, 9000 Rockville Pike, Bethesda, MD 20892. U.S. citizenship and/or permanent residency required depending upon type of appointment. An Equal Opportunity Employer.

COMPUTATIONAL PHYSICIST. Use C programming to analyze, implement, and modify the algorithms for physical problems and tuning of the program for performance fast enough to meet the market needs and competition. One course in analysis of algorithms and one course in artificial intelligence. Ph.D. degree in physics is required. One year of experience. Forty hours per week, \$1000 per week. Apply at Texas Employment Commission, San Antonio, Texas, or send résumé to: The Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #6139092. Ad paid by an Equal Employment Opportunity Employer.

MEETINGS

SIGNAL TRANSDUCTION IN LUNG CELLS, 6 to 9 October 1991. Conference site: Woods Hole. G-proteins, phosphoinositides, calcium fluxes, tyrosine kinases, and ion channels. Posters on similar topics in lung cells are welcome. Registration fee: \$150. For further information, contact: J. S. Brody, M.D., Boston University Medical Center, 80 East Concord Street, K6, Boston, MA 02118 or FAX: 617-536-8093. Application deadline: 1 August 1991.

MOLECULAR MECHANISMS OF CARCINOGENESIS IN HUMANS AND RODENTS 8 to 12 SEPTEMBER 1991

An international symposium entitled "Molecular Mechanisms of Carcinogenesis in Humans and Rodents" will be held at the National Institute of Environmental Health Sciences, 111 Alexander Drive, Research Triangle Park, North Carolina, from 8 to 12 September 1991. For further information, call: Dr. Marshall Anderson, 919-541-3519, or Dr. Carl Barrett, 919-541-2992.

POSITIONS OPEN

STAFF ANALYST. Specializing in surface analysis. Skills must include the use of mass spectrometers (MS) incorporating sputter sampling and post ionization (e.g., sputtered neutral MS) for solid materials analysis, operation, and application of SNMS instrumentation. Duties include analysis with SNMS, GDMS, and/or SARISA SNMS data reduction and report generation, sputter sampling, atomic ionization processes, and mass spectrometry; research and development to advance SNMS techniques and procedures. The candidate must possess a Ph.D. in physics or analytical chemistry and 3 years of experience. Salary: \$50,000 per year. Job site and interviews in Redwood City. Please send this ad and your résumé or letter of qualifications to: Job #WS12171, P.O. Box 9560, Sacramento, CA 95823-0560 no later than 6 July 1991.

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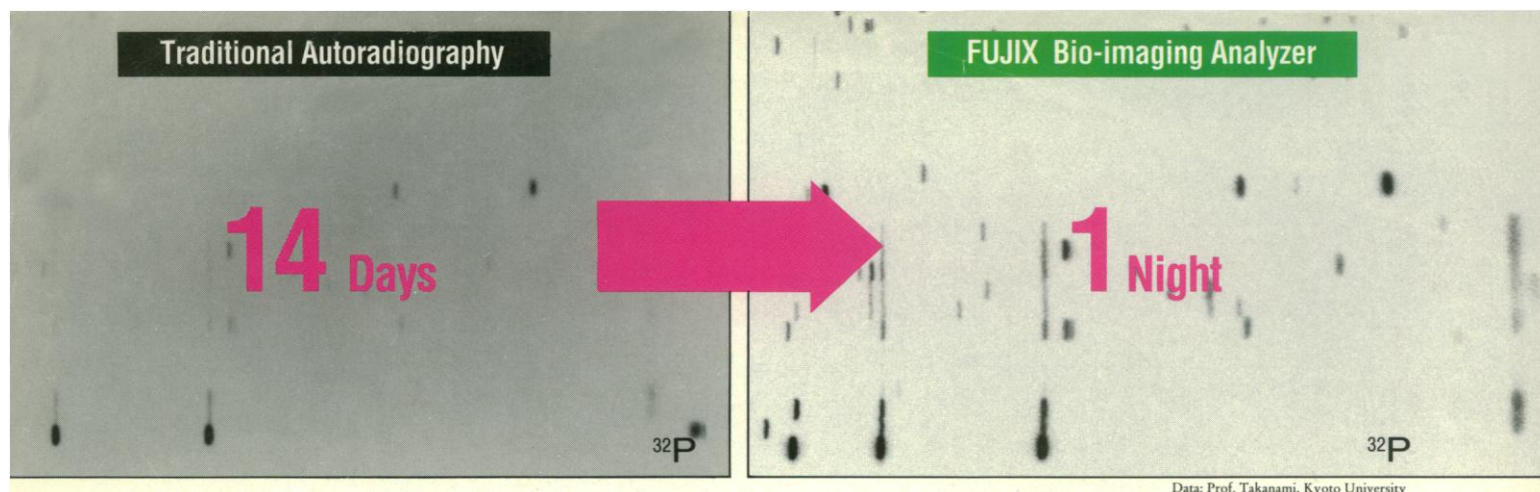
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Fuji's patented photostimulable phosphor Imaging Plate (IP) takes the place of traditional x-ray film to expose your radio-labelled sample. Image data exposed on the Imaging Plate is read by a laser and computer processed to detect minute amounts of substances often undetected by traditional autoradiography.

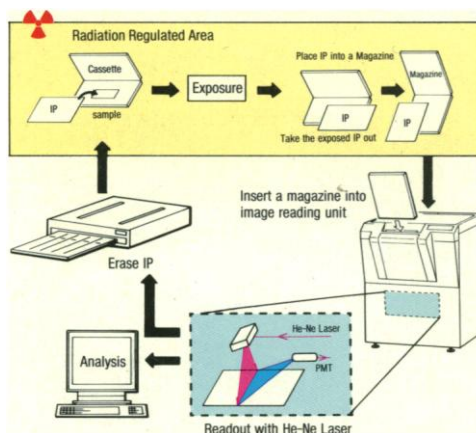
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The erasable, reusable Imaging Plates are over 100 times more sensitive to radiation than conventional x-ray film. This greatly reduces exposure time and helps you get your results faster.

The wide dynamic range of the Imaging Plate, which exceeds five orders of magnitude, covers from the faintest to the greatest amount of activity, virtually eliminating re-exposures.

The Imaging Plate allows easy to handle operation and scanning in under three minutes without a darkroom. Because the exposure and reading processes are decoupled, productivity is increased. Bands or spots can be quantitated directly on the display, eliminating the need for liquid scintillation counting.

The Reusable Imaging Plate (IP)



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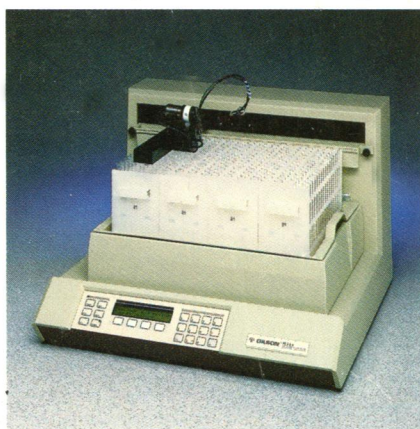
...you can depend on a Gilson fraction collector

The Gilson FC 203, for example, has a 98% problem-free performance record. And there are some FC 80s that are still on the job after 20 years. That's the kind of reliability you get with a Gilson fraction collector...for any process, any collection volume, any vessel size.

New Gilson collector offers high-volume, high-capacity

The new FC 204 is a multi-mode fraction collector that holds 176 18 mm tubes for preparative applications; 240 13 mm tubes for semi-preparative applications and; 432 10 mm tubes for analytical HPLC. And in low pressure LC systems, the FC 204 can provide start/stop control of pumps and chart recorders.

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New FC 204 high-capacity, high-volume fraction collector.

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Multi-mode 201 and 202 offer more collection options

If your requirements can't be met with an FC 204, FC 203 or one of our Micro-Fractionators, chances are you need a 201 or 202. These collectors offer 15 operating modes, high capacity and virtually unlimited collection volumes. The 201 has a 120-tube capacity while the larger 202 offers 540-tube collection in a five-rack configuration.

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