

## Products & Materials

### ***Tiny pH and Temperature Probe***

A combination pH and temperature probe integrates miniature thermocouple technology with a new polymer-based pH sensor. It comes in two versions. A flexible dipstick version with a 0.6-mm tip enables researchers to make measurements in microwell and capillary tube samples as small as 0.2  $\mu$ l. A 21-gauge needle version allows insertion in laboratory animals, gels, and reactor ports. Low impedance and a tiny thermocouple reduce AC interference and increase stability, allowing an accurate temperature-compensated pH reading of solutions and tissues. The probes are compatible with most pH meters. Both versions are available with only the pH capability. Physitemp Instruments. Circle 458.

### ***Sequencing Electrophoresis System***

The Hybaid Sequencing Gel Tank features an anodized aluminum back plate to distribute heat evenly across the gel. This feature minimizes uneven migration and band smearing and allows sample loading across the whole gel. The sequencing gel is held in place during operation by two retaining bars that ensure even distribution of pressure along the entire gel to minimize leakage and plate breakage. Gel plates, spacers, and a 78-tooth comb are all provided to cast a gel 45 by 35 cm to obtain maximum sequencing information from a single run. Hybaid. Circle 459.

### ***Program for DNA and Protein Sequence Analysis***

GeneWorks is a nucleic acid and protein sequence analysis program for the Apple Macintosh. GeneWorks' graphics capability allows scientists to view a sequence from several different perspectives simultaneously, to perform analyses, and to manipulate linear sequence data as text, maps, plots, and

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.

graphs. The program's DNA functions include restriction enzyme analysis, composition analysis, open reading frame analysis, coding region analysis, site analysis, and planning cloning experiments. Its protein functions include analysis of structure, composition, hydrophobicity, amphiphilicity, translation and reverse translation, protease maps, and location of signal regions. The database search capabilities include annotation searches and similarity searches of nucleic acid and protein banks on CD-ROM. GeneWorks runs on a minimum configuration of a Macintosh Plus with 2 megabytes of random access memory and a hard disk. Intelligenetics. Circle 457.

### ***Antibody-Enzyme Conjugation Kits***

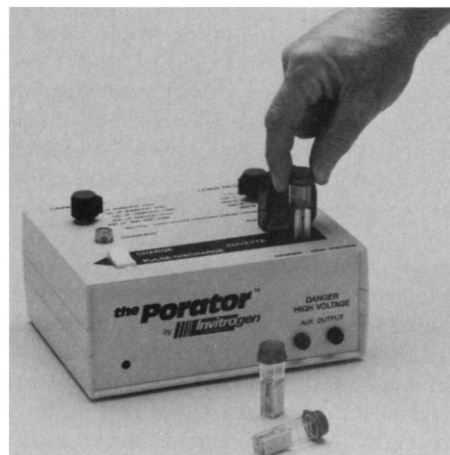
The IMMUNO-LINK AP and IMMUNO-LINK HRP kits provide all the reagents and gel filtration columns needed to conjugate two antibodies to alkaline phosphatase and horseradish peroxidase, respectively, in a simple protocol. The AP kits contain a stable, sensitive chemiluminescent substrate that provides a signal on x-ray film that does not fade with time. The procedure takes less than 2 hours, including a process control stage to ensure quality conjugates. The conjugates are stable for up to 6 months and conjugates of antibody fragments can also be made. The conjugates can be used for many applications, including immunoassay, protein immunoblotting, and immunocytochemistry. Cambridge Research Biochemicals. Circle 465.

### ***Monoclonal Antibody Isotyping Kits***

Two new kits offer convenience in isotyping monoclonal antibodies. The kits' enzyme immunoassay technique is at least as sensitive as radioimmunoassay (RIA), without the disadvantages of RIA. Each kit contains sufficient reagents to characterize 100 mouse monoclonal antibodies. Pierce. Circle 466.

### ***Electroporation Device***

The Porator is an inexpensive alternative for electroporation of mammalian and bacterial cells. Electroporation renders cell membranes temporarily permeable to DNA and other macromolecules by exposing the cell to a brief high-voltage pulse. The Porator allows labs to achieve higher levels of



transient expression and stable transformation of mammalian cells and to produce competent *Escherichia coli* cells with consistently higher transformation efficiencies than with processes that chemically modify cells. Invitrogen. Circle 467.

### ***pH Maintenance Kit***

Designed to improve the accuracy of pH readings and increase the life of pH electrodes, the pH Maintenance Kit includes buffer capsules, storage bottles, electrode cleaner and solution, and a practical pH booklet. Whatman LabSales. Circle 468.

### ***Literature***

. . . 117, 118, 219, uh no, 118, 119, 120, wait, maybe not . . . is a six-page brochure that presents a full line of systems and instruments for automated colony counting. Dynatech Laboratories. Circle 469.

*Sigma Immunochemicals 1991 Catalog* lists more than 1200 quality immunochemicals and related products. The more than 150 new products include a quick method for mouse monoclonal isotyping, immunohistology kits, monoclonal antibodies to human leukocyte markers, and antibodies to coagulation factors. Sigma Immunochemicals. Circle 470.

*Selected Laboratory Specialties* is a 32-page catalog with more than 200 laboratory aids designed to maximize efficiency and safety in such areas as radiation and biohazard work, liquid handling, and sample storage. Lux Scientific Instrument Corp. Circle 471.

*Disposable Chromatography* features a line of glass and plastic columns and accessories. There are several column styles for both routine clinical assays and specialized biomedical research applications. Isolab. Circle 472.

# 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

The Department of Surgery at Stanford University School of Medicine is conducting a search for an experienced academic leader in pediatric surgery to head the Division of Pediatric Surgery. Candidates should be experienced academic surgeons with an appropriate record of clinical and laboratory investigation. The level of appointment will be at the **ASSOCIATE PROFESSOR** or **PROFESSOR** rank based on the candidate's qualifications. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.* Interested applicants should write to: **Chairman, Department of Surgery, MSOB Room X-228, Stanford University School of Medicine, Stanford, CA 94305.**

**ASSISTANT PROFESSOR OF BIOLOGY.** Tenure-track, academic year appointment commencing 26 August 1991 to participate in a quality undergraduate program. Teaching courses in immunology will be required as well as other classes in the incumbent's area of expertise. Preference will be given to individuals with specialization in the areas of embryology, parasitology, bacteriology, general biology, and in particular hematology, and the ability to advise medical technology students. Commitment to quality teaching and direction of undergraduate research is required. Salary commensurate with qualifications.

Qualification: Doctoral degree in biological sciences (or related field) required; evidence of teaching excellence desired.

Submit letter of application, résumé, and three letters of reference to: **Office of Employee Relations, Lake Superior State University, Administration Building, Sault Ste. Marie, MI 49783.** Applications deadline: 10 May 1991.

*An Equal Opportunity/Affirmative Action Employer.*

## CONSERVATION ECOLOGIST ASSISTANT PROFESSOR

The University of Georgia's Department of Zoology, in conjunction with the Institute of Ecology, announces a tenure-track position for a conservation ecologist. The successful candidate will play a major role in a new graduate program in "Conservation Ecology and Sustainable Development" and should develop research and teaching programs in conservation and population ecology and natural history. Starting date is negotiable. To be assured of consideration, please send, by 17 May 1991, curriculum vitae, statement of research plans, three letters of reference, and relevant reprints to: **Chair, Conservation Search Committee, Zoology Department, University of Georgia, Athens, GA 30602. Telephone: 404-542-3310.**

*The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

## CELL BIOLOGIST

The Department of Veterinary and Comparative Anatomy, Pharmacology, and Physiology, College of Veterinary Medicine, Washington State University, invites applications or nominations for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level. The duties of the position include: the development of a vigorous, independent research program employing modern methods of cell and/or molecular biology; involvement in graduate training; and participation in teaching veterinary cell biology, developmental biology, and/or microscopic anatomy to D.V.M. students. Areas of research in the department include neurobiology, reproductive endocrinology, hemostasis, exercise, and cardiovascular physiology. Qualifications: Ph.D. and appropriate research and teaching experience. Rank and salary will be commensurate with qualifications. Earliest starting date is 1 September 1991.

Written applications must include curriculum vitae and the names, addresses, and telephone numbers of three references. Applications, nominations, or inquiries should be sent to: **Dr. J. W. Harding, Department of Veterinary and Comparative Anatomy, Pharmacology, and Physiology, College of Veterinary Medicine, Washington State University, Pullman, WA 99164-6520.** Review of applications will begin 1 July 1991, and will continue until the position is filled.

*Washington State University is an Affirmative Action/Equal Opportunity Educator and Employer.*

## POSITIONS OPEN

**BIOLOGIST.** Fall of 1991, **ASSISTANT PROFESSOR**, tenure track, to teach human life science and environmental science to nonmajors, and at least two upper-level courses to majors; developmental biology, immunology, or another course in area of expertise, complementary to our curriculum. Ph.D., commitment to excellent teaching required; preference to candidates with teaching experience. Send curriculum vitae, transcripts, and three letters of recommendation to: **Dean B. Richardson, West Virginia Wesleyan College, Buckhannon, WV 26201.** Application review begins 3 May 1991. You may call Dr. Katharine Gregg, Chair, Department of Biology, at 304-473-8124. *Equal Opportunity/Affirmative Action Employer.*

## ASSISTANT PROFESSOR VERTEBRATE BIOLOGY

Search continued. Tenure-track position available starting September 1991. Hollins College, a private 4-year liberal arts college for women, seeks a vertebrate biologist to teach undergraduate courses in general biology, comparative anatomy, embryology, and histology. Teaching load is two courses per semester. Experience in scanning EM is desirable. Accepted candidate is expected to develop a research program involving undergraduate students. Ph.D. required. Curriculum vitae, statement of teaching and research interest and experience, transcript, copies of significant publications, and three letters of recommendation should be sent to: **Dr. Harriet Gray, Chair, Department of Biology, Hollins College, P.O. Box 9616, Roanoke, VA 24020** by 1 May 1991. *Equal Opportunity Employer.*

## TRANSPLANTATION IMMUNOLOGIST LOYOLA UNIVERSITY OF CHICAGO

The Loyola University of Chicago cardiac transplantation program has an immediate opening for an immunologist to establish a high quality basic research program in transplantation immunology. A tenure track will be granted in the Departments of Medicine and Microbiology and Immunology at the **ASSISTANT OR ASSOCIATE PROFESSOR** levels. Candidates should have a Ph.D. and a record of established research in the areas of allograft rejection, transplantation tolerance, and/or allograft vascular disease. Candidates must be willing to participate in graduate and medical students teaching. While the successful candidate is expected to obtain extramural funding, the salary is not dependent from grant funds. Please submit curriculum vitae, two copies of relevant papers, description of research goals, and three supporting letters to:

**Maria Rosa Costanzo-Nordin, M.D.**  
Medical Director  
Cardiac Transplant Program  
Loyola University of Chicago  
Maywood, IL 60153

## UNIVERSITY OF CALIFORNIA SANTA CRUZ (UCSC)

The Santa Cruz campus of the University of California is seeking a **FULL PROFESSOR** in **ENVIRONMENTAL TOXICOLOGY** with an emphasis on aquatic systems, with an outstanding research record in one of the area of (i) characterization, transport and fate of contaminants in surface or groundwater (particularly with a strong analytical expertise in trace analysis), (ii) microbial remediation, (iii) biochemical toxicology, or (iv) ecotoxicology of natural systems. The appointee is expected to maintain an active research program and teach graduate and undergraduate courses. The appointment is the first of several in environmental toxicology. Depending upon training and research interests, the appointee initially will be a member of the Department of Chemistry, Earth Sciences, Marine Sciences, Biology or Environmental Studies. Rank: Professor step I to V, Salary range: \$43,100 to \$72,200, commensurate with qualifications and experience. Minimum qualifications: Ph.D. or equivalent in any of the above fields. Outstanding research, and teaching record appropriate to the level of appointment. Applicants should submit curriculum vitae, statement of research and teaching interest and experience, and names of four referees to: **Environmental Toxicology Search Committee, Institute of Marine Sciences, University of California, Santa Cruz, CA 95064**, by 15 May 1991; please refer to provision #211-901 in your reply. Position available: fall of 1991. *UCSC is an Affirmative Action/Equal Opportunity Employer.*

## V.P./Senior Director, Biological Sciences

We invite applications for the position of V.P./Senior Director, who reports directly to the Senior/Vice President for Research and Development and leads our Biological Science groups (Cell Biology, Molecular Biology, Pharmacology and Enzymology) in drug discovery.

We seek an individual with more than 8 years of post doctoral experience, preferably including pharmaceutical industry experience, who has outstanding expertise and a record of highly productive achievement. Excellent leadership and communication skills are essential.

ImmunoPharmaceutics is a growing development stage integrated pharmaceutical company based on antibody directed design technology for the cardiovascular and inflammation/immune regulation markets. We offer an exciting working environment, competitive salaries and benefits, equity participation and a highly desirable Southern California location.

Please send your resume in confidence to:

ImmunoPharmaceutics, Inc., Recruitment, Dept. JB, 11011 Via Frontera, San Diego, CA 92127. An affirmative action/equal opportunity employer.



**IMMUNOPHARMACEUTICS, INC.**

*A Synbiotics Company*

## Biocides Formulation Chemist

A leading manufacturer of biocides, with laboratories in Europe and the U.S., has an immediate opening for a formulation chemist. The successful candidate will define and develop, to commercial introduction, a variety of biocide formulations for industrial applications. Applications of special interest include paint-film mildewcides, wood preservatives, and preservation of emulsions and metal-working fluids.

We are looking for a scientist with a B.S. or higher degree in chemistry or a related science. You should have at least five years of experience in formulating industrial biocides, and a record of technical success in product introductions. You must also be conversant with a broad range of commercially available biocide products and their active ingredients. Finally, you should have strong organizational and interactive skills necessary for effective collaboration with marketing groups and customers worldwide. This position may involve relocation to the U.S.

We offer a highly competitive salary and benefits program, including relocation assistance. Our staff enjoys modern research facilities and numerous resources for professional advancement. This position will enable you to develop new biocides technology with major commercial impact through innovative, open-ended research. For confidential consideration, please forward your resume to:

Ref. 46118  
Paul Banfield  
M. S. L. International  
32 Aybrook Street  
London W1M 3JL U.K.

OR  
P.O. Box 65119  
Washington, DC  
20035-5119 U.S.A.

## PHARMACEUTICAL TOXICOLOGIC PATHOLOGIST



Hoffmann-La Roche, an established international leader in the research and development of pharmaceutical products, has a challenging and rewarding opportunity on our general pathology team in the Department of Toxicology and Pathology.

You will participate in the preparation of protocols, supervise necropsies, conduct histopathologic examinations, generate pathology reports and co-author toxicology reports of preclinical drug safety assessment studies conducted according to the GLPs to be submitted to regulatory agencies in support of registration of new drugs. Also, conduct/collaborate in investigations to elucidate the nature of toxic/therapeutic effects of drugs; and enhance the managerial processes of drug discovery and development.

To qualify, you must be a DVM or MD Pathologist specializing in pharmaceutical toxicology/experimental therapeutics; and have a record of success in a multi-disciplinary environment.

We offer an excellent compensation, benefits, bonus and relocation package. Please send your resume, indicating present salary (those without this information will not be acknowledged), to: **Mrs. Eleanor M. Malone, Staffing and Employee Services, Department EM091ZR, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



**Hoffmann-La Roche**

Working Today For A Healthier Tomorrow

## BEHAVIORAL SCIENTIST

**NOVA PHARMACEUTICAL CORPORATION**, a leading Research & Development company, seeks a scientist who will be responsible for developing and performing behavioral tests in its CNS Research Division. Qualified candidates should have a PhD with 2+ years' relevant experience (including supervision) with working knowledge of pharmacological principles. Knowledge of anxiolytic, drug-discrimination and/or tests useful for identifying atypical/antipsychotic medications is valuable as are excellent oral and written communication skills. Prior industry experience preferred.

**NOVA PHARMACEUTICAL CORPORATION** is a small and growing company providing a challenging work environment. We offer a competitive salary and benefits package which includes health (including prescription plan), life and dental insurance; profit sharing; 401(k) savings plan; stock options and relocation assistance.

For immediate consideration, please send your resume with salary history to: **NOVA PHARMACEUTICAL CORP., Personnel-91-004, 6200 Freeport Centre, Baltimore, MD 21224-6522.** Nova is an equal opportunity employer offering a smoke-free work environment.



## St. John's University COLLEGE OF PHARMACY & ALLIED HEALTH PROFESSIONS

The Department of Pharmaceutical Sciences, College of Pharmacy & Allied Health Professions, at St. John's University seeks to fill a tenure-track position at the assistant or associate professor level. Applicants must possess a Ph.D. Responsibilities include undergraduate and graduate courses as well as an active research program. Preference will be given to candidates with a background in cell biology, molecular biology, or pharmacology. The department possesses excellent facilities and all the necessary support services for research. Modern instrumentation, an AAALAC accredited animal facility, and tissue culture laboratories are available. The college provides a supportive environment for scientists beginning their career in basic research. Application letters with curriculum vitae, statement of research interests and names of three references should be sent to:

Dr. Armit Kapoor,  
Professor & Chairman,  
Department of  
Pharmaceutical Sciences,  
St. John's University,  
Jamaica, NY 11439.



St. John's is an Affirmative Action/Equal Opportunity Employer - M/F.

## VICE PRESIDENT FOR AGRICULTURAL ADMINISTRATION AND EXECUTIVE DEAN, COLLEGE OF AGRICULTURE

### THE OHIO STATE UNIVERSITY

The Ohio State University is seeking applications and nominations for Vice President for Agricultural Administration and Executive Dean of the College of Agriculture. Major responsibilities include: serving as academic dean of the College of Agriculture, including the School of Natural Resources and the Agricultural Technical Institute, and administrative responsibility for the Ohio Agricultural Research and Development Center and the Ohio Cooperative Extension Service. Candidates should have academic experience and a record of administrative/leadership ability generally consonant with the complexity of a large land-grant university. The candidate must be qualified for tenured appointment at the rank of professor.

Nominations and letters of interest with pertinent supporting materials should be sent to:

Mr. Jerry H. Baker  
Lamalie Associates, Inc.  
3340 Peachtree Rd., N.E.  
Atlanta, Georgia 30326

DEADLINE FOR APPLICATIONS: May 15, 1991 or  
until a desirable candidate is selected.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer.



## THOMAS JEFFERSON UNIVERSITY JEFFERSON CANCER INSTITUTE Carlo M. Croce, M.D., Director

**FACULTY POSITIONS IN IMMUNOLOGY.** Several faculty appointments are currently available in the recently expanded Department of Microbiology and Immunology. We invite applications from new and established investigators for full time tenure-track positions at any academic rank. Individuals with strong research interests in any area of immunology will be considered. Investigators with research programs in Molecular Immunology are particularly encouraged to apply. The Department currently has research interests in transplantation immunology, autoimmunity, immunogenetics, cell-cell interactions, neuroimmunology, immunoparasitology, tumor immunology, cytokines, and immunoregulation. The research environment is excellent and conducive for active interactions within the Department and with other members of the Jefferson Cancer Institute. The University itself is located in the vibrant historical downtown area of Philadelphia. Please send curriculum vitae, research plans, and the names and addresses of three references to:

Dr. Robert Korngold  
Department of  
Microbiology and Immunology  
Jefferson Medical College  
1020 Locust Street  
Philadelphia, PA 19107-6799

We are committed to a smoke-free environment  
Thomas Jefferson University is an Affirmative Action/  
Equal Opportunity Employer

## POSTDOCTORAL SCIENTIST

The Bioresearch Department of SmithKline Beecham Animal Health is seeking a Postdoctoral Scientist to perform investigative studies on infections by *Borrelia burgdorferi* in animals and humans. The specific area of research will focus on the immune response to infection, host/spirochete or tick/spirochete interactions of Lyme Disease or vaccine development.

The appointment is temporary full time for a period of two years and is part of a research agreement between SmithKline Beecham Animal Health and the Centers for Disease Control (CDC) in Fort Collins, CO. The successful candidate will work within the Division of Vector-Borne Infectious Diseases at the CDC in Fort Collins, CO.

Applicants should send curriculum vitae, including relevant reprints, and the names and addresses of three references to: Leonard W. Mayer, Ph.D., P.O. Box 2087, Fort Collins, CO 80522. An Equal Opportunity Employer M/F/H/V.



**SmithKline Beecham**  
Animal Health

## POSITIONS OPEN

The Department of Surgery at Stanford University School of Medicine is conducting a search for an experienced academic leader in vascular surgery to head the Division of Vascular Surgery. Candidates should be experienced academic surgeons with an appropriate record of clinical and laboratory investigation. The level of appointment will be at the **ASSOCIATE PROFESSOR** or **PROFESSOR** rank based on the candidate's qualifications. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.* Interested applicants should write to: **Chairman, Department of Surgery, MSOB Room X-228, Stanford University School of Medicine, Stanford, CA 94305.**

**PROFESSOR.** The University of California, Los Angeles (UCLA), Department of Kinesiology, Division of Life Sciences, in the College of Letters and Science, invites applications for a cellular electrophysiologist in the area of vision research. This is a full professor, tenured position, and candidates are expected to have a distinguished, extramurally funded research record in the physiology of photoreceptors, as well as the physiology and pharmacology of ciliary body epithelium. The appointee will be expected to teach at both the undergraduate and graduate levels. Applicants must have a Ph.D. or M.D. degree, and the salary will be commensurate with qualifications. This appointment will begin 1 July 1991, subject to the availability of funds. Deadline for receipt of applications is 15 May 1991. Submit your curriculum vitae, representative reprints, and a cover letter that includes the names and addresses of at least three individuals who may be contacted for letters of reference to: **Ronald F. Zernicke, Ph.D., Department of Kinesiology, 2859 Slichter Hall, UCLA, Los Angeles, CA 90024-1568.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR ANATOMY/NEUROBIOLOGY

Applicants are invited for a tenure-track position in the Department of Anatomy and Cell Biology, University of North Dakota School of Medicine. Applicants must have a Ph.D., M.D. or equivalent with at least 2 years of postdoctoral training and research experience in neurobiology, cell biology, or related areas. The successful applicant will be expected to carry on a vigorous extramurally funded research program in his/her respective field. Applicants should be willing to assist in teaching an interdepartmental neuroscience course for medical students and to contribute to teaching in an undergraduate paramedical anatomy course. The successful candidate will also be expected to make a substantial contribution to the departmental graduate program. Review of applications will begin 15 May 1991, and continue until the position is filled. Send curriculum vitae, descriptions of research and teaching experience, and three letters of reference to: **Dr. Edward C. Carlson, Chairman, Department of Anatomy and Cell Biology, University of North Dakota School of Medicine, Grand Forks, ND 58202.** *The University of North Dakota is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*

**ENVIRONMENTAL SCIENCE: DIRECTOR** of Center for Environmental Programs. The objectives of this 5-year program, which is funded by the Department of Energy, are to infuse an environmental/waste management focus into existing curricula and to increase participation of minority and educationally disadvantaged students in technical fields. Previous experience in managing such programs, as well as in teaching, is preferred. Responsibilities for the position include managing the program, developing and teaching courses in environmental science, community outreach, and grant writing. Xavier University is a small, predominantly black, Catholic, liberal arts institution. A Ph.D. in environmental science or equivalent is required. Salary is commensurate with experience. Position begins immediately. Send letter of application, curriculum vitae, and three letters of recommendation by 15 May 1991 to:

**Dr. Howard Mielke**  
Chair, Search Committee  
Center for Environmental Research  
Xavier University of Louisiana  
New Orleans, LA 70125

*Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### BIOMOLECULAR NMR SOFTWARE R&D

By combining scientific rigor and programming excellence, BIOSYM is a recognized leader in the field of computer-aided molecular design. We are currently developing an integrated system for elucidating molecular structures from NMR within BIOSYM's molecular modeling environment. The package includes multidimensional NMR data processing and analysis, semi-automated resonance assignment, structure generation, and refinement tools.

We have an opportunity for an innovative, creative scientist with experience in multidimensional homonuclear and heteronuclear NMR of proteins and nucleic acids, as well as extensive programming skills. The individual selected will be responsible for designing software, writing and implementing code within the BIOSYM environment, scientific validation, and developmental research.

A Ph.D. in chemistry, biochemistry, or physics, with expertise in NMR spectroscopy is required. Also required is experience developing and using 2D/3D NMR data processing and analysis software and using automated resonance assignment strategies in proteins and nucleic acids. Fluency in Fortran and "C," experience with UNIX, and graphic programming are desirable.

If you are interested in joining a progressive, scientific team, send your detailed résumé, transcript copies, and three letters of recommendation to: **BIOSYM Technologies, Inc., 10065 Barnes Canyon Road, San Diego, CA 92121.** *Equal Opportunity Employer, M/F/H/V.*

**CYTOGENETICS TECHNOLOGIST.** The cytogenetics laboratory of The University of Nevada School of Medicine Genetics Network has an immediate opening available for an NCA-certified or -eligible individual with a minimum of 1 year of full-time experience in clinical cytogenetics. Our laboratory is now in its third year of development and is growing rapidly. Our genetics network is a nonprofit group established to provide genetic services to the state of Nevada and includes specialists in medical genetics, genetic counseling, and cytogenetics. This position represents an excellent opportunity to be a part of a high quality, full service facility. The Reno area has much to offer, from Tahoe skiing to international level entertainment, and all in an uncrowded setting. Salaries are competitive and commensurate with experience. Benefits are excellent and Nevada has no state income tax. Interested candidates should send résumés or call: **A. Dean Stock, Ph.D., Associate Professor Pathology/Laboratory Medicine, Director of Cytogenetics, University of Nevada School of Medicine, 888 Willow Street, Reno, NV 89502. Telephone: 702-786-1969; FAX: 702-786-6256.**

The U.S. Environmental Protection Agency (EPA), Environmental Research Laboratory-Duluth, located in Duluth, Minnesota, is accepting applications for a supervisory research aquatic biologist to serve as **CHIEF OF PREDICTIVE TOXICOLOGY RESEARCH BRANCH.** Branch conducts and manages both intramural and extramural research on computational methods to predict the toxic behavior of pollutants. The branch chief supervises a multidisciplinary team of physiologists, toxicologists, biochemists, and modelers. The branch supports EPA with formal programs in toxicity mechanisms, metabolism, pharmacokinetics extrapolation, and quantitative structure-activity relationships.

Requirements include a Ph.D. or equivalent in biology, biochemistry, or toxicology. This position will be available in April/May 1991, at a salary range of \$52,406 to \$68,129. Further information may be obtained by contacting **Dr. Steven Broderius** at 218-720-5574.

Write: **U.S. EPA, 6201 Congdon Boulevard, Duluth, MN 55804, Attention: Sherry Linder,** to request application forms.

*Position open only to U.S. citizens.  
The U.S. EPA is an Equal Opportunity Employer.*

### UNIVERSITY OF COLORADO SCHOOL OF PHARMACY

**HEAD, DIVISION OF PHARMACEUTICAL SCIENCES.** The division consists of 16 full-time faculty and has a strong basic research orientation. Qualified candidates are invited to submit a letter of interest, curriculum vitae, and names of five references by 31 May 1991 to: **Louis Diamond, Dean, University of Colorado School of Pharmacy, Boulder, CO 80309-0297.** *The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.*

## POSITIONS OPEN

### KENYA FIELD DIRECTOR THE SCHOOL FOR FIELD STUDIES (SFS)

Unique field program in wildlife management and conservation needs skilled, experienced leader for semester and summer programs. Fifteen to thirty highly motivated students earn full academic credit at spectacular field station. Advanced degree, East Africa experience, teaching, leadership, and organizational skills required. Annual base is up to \$35,000 (including \$5,000 room and board support). Send detailed letter, résumé and telephone numbers of three or more references to: **KS Search, SFS, 16 Broadway, Beverly, MA 01915.** Inquiries: 508-927-7777. FAX: 508-927-5127. *SFS is an Equal Opportunity Employer.*

### DIRECTOR SOUTH AFRICAN ASTRONOMICAL OBSERVATORY

Applications or nominations are invited for the post of director of the South African Astronomical Observatory (SAAO) which will become vacant when Professor M. W. Feast retires from this position. The SAAO is operated as a national facility by the Foundation for Research Development (FRD), a statutory body which also funds and promotes scientific research in South African universities. The base of the SAAO is in Cape Town (at the former Royal Observatory) and the main telescopes are at Sutherland, Cape Province. The largest telescope is a 1.9m reflector though funding is being sought for a 3.5m telescope. There is a wide range of auxiliary instruments. Besides the research program carried out by its staff, the SAAO provides facilities for astronomers from the national and international community. Further details of the SAAO staff and facilities can be obtained from: **The Director, SAAO, P.O. Box 9, Observatory 7935, Cape, South Africa.** Applications or nominations should be sent before 31 August 1991 to: **The President, Foundation for Research Development, P.O. Box 2600, Pretoria 0001, South Africa,** from whom details of the post can be obtained. *Appointments to all posts at SAAO are made on the basis of merit and irrespective of race, sex, or creed.* It is expected that the new director will assume office in early 1992.

### DIRECTOR MOLECULAR DIAGNOSTIC LABORATORY DEPARTMENT OF MEDICAL GENETICS OREGON HEALTH SCIENCE UNIVERSITY

A faculty position is available for an M.D. or Ph.D. molecular geneticist with experience in DNA diagnostics and Board certification or eligibility in biochemical/molecular genetics. This facility will complement a strong state-wide program in clinical genetics, well-established Ph.D. and M.D. training programs, and existing clinical cytogenetics and clinical biochemical genetics laboratories. The position will also allow development of an independent research program. Letters of inquiry should describe past experience and professional goals, and include curriculum vitae with names of three referees. Send by 30 June 1991 to: **Nancy G. Kennaway, D. Phil., Department of Medical Genetics, L-473, Oregon Health Sciences University, Portland, OR 97201. Telephone: 503-494-8392; FAX: 503-494-7645.** *Equal Opportunity/Affirmative Action Employer.*

**DNA CHEMISTRY FACILITY MANAGER.** A position is available at Washington University in St. Louis for a qualified individual to manage the Biology Department's Integrated DNA Chemistry Facility. The facility houses a DNA synthesizer, HPLC, FPLC, fermenter, computing densitometer, radioanalytic scanner, and other advanced instruments for shared use. The primary responsibility will be to run the DNA synthesizer and to manage and facilitate the use of the other instruments by departmental researchers. The person hired also will have the opportunity to engage part-time in either research or teaching. Requirements include a suitable background in DNA biochemistry and ability to use modern instruments for automated protein and DNA manipulations. Experience with computer hardware and programming would be advantageous. To apply, send a letter indicating interest in this position and curriculum vitae and arrange to have three letters of reference sent to: **Professor Roy Curtiss III, Chairman, Department of Biology, Campus Box 1137, One Brookings Drive, Washington University, St. Louis, MO 63130.** *Washington University is an Equal Opportunity/Affirmative Action Employer.*

## SAMUEL ROBERTS NOBLE FOUNDATION

### PLANT BIOLOGY RESEARCH FELLOWSHIPS NOBLE FOUNDATION - SALK INSTITUTE JOINT PROGRAM

Applications are invited for two Noble Foundation Fellowships for post-doctoral research in Plant Molecular Biology. These Fellowships are a key element in a collaborative program between the Plant Biology Division, Noble Foundation, Ardmore, Oklahoma, directed by Dr. Richard A. Dixon, and the Plant Biology Laboratory, The Salk Institute for Biological Studies, La Jolla California, directed by Dr. Christopher J. Lamb.

Research topics will be in the area of biochemical, molecular and genetic analysis of signal transduction pathways for induction of plant defense gene expression by elicitors and infection. The Fellowships are for three years beginning October, 1991. Eighteen months will be spent in each laboratory.

**Please send resume and three letters of recommendation to: Dr. C.J. Lamb, The Salk Institute for Biological Studies, P.O. Box 85800, San Diego, CA 92186-5800. Telephone (619) 453-4100, ext. 106. Equal opportunity employer M/F/V/H.**

# DIRECTOR OF IMMUNOLOGY



A company recognized for the success of its research efforts, Marion Merrell Dow is also known for the quality of our scientific environment and career opportunities. Now, you can join us at our newly established Kansas City Center of Excellence in Immunology. The role of the Immunology Group will be to investigate basic mechanisms of immunology related diseases and to design therapeutic interventions in autoimmune diseases.

The Kansas City Center is looking for a world recognized scientist to develop and lead a diverse group of scientists in both basic and applied research endeavors in Immunology. The scientist will collaborate with other scientists in chemistry, pharmacology, and biochemistry located throughout the world at the various centers which comprise the Marion Merrell Dow Research Institute.

The ideal candidate will have a PhD with expertise in cellular and molecular immunology and at least 10 years post-graduate experience with demonstrated supervisory skills in the conduct and management of research. The candidate should also have a working knowledge of the drug discovery and preclinical development process as related to immunotherapeutics. Familiarity with a broad range of research areas within Immunology, which includes, but is not limited to allergy, inflammation, autoimmune diseases, and immunobiology is essential.

An international industry leader, Marion Merrell Dow Inc. is committed to ongoing major research efforts. We also offer an excellent compensation and benefits program including bonus, 401(k), and stock options for all scientists. Our Kansas City location provides an affordable, and family-oriented, yet cosmopolitan quality of life. For consideration, please submit resume with salary history to: Marion Merrell Dow Inc., Staffing, Dept. SJL, P.O. Box 9627, Kansas City, MO 64134. An Equal Opportunity Employer.



MARION MERRELL DOW INC.

## Director of R&D San Francisco Bay Area

Development Stage Pharmaceutical Company, developing small molecule anti-viral (HIV, Herpes) and anti-cancer NCEs, is looking for a Director of Research and Development with minimum 5 years of pharmaceutical development experience. Job requires experience with pharmaceutical project management functions and with the coordination of outside contract resources and academic collaborations. Familiarity with research on oncogenes, steroid-related receptors and/or other zinc finger containing proteins an asset. A Ph.D. degree and experience in medicinal chemistry, enzymology, pharmacology, virology or cancer biology would be most useful, although other backgrounds will be considered. Salary will be dependent on background and experience. Generous stock participation possible. Possibility to begin work on a part-time basis. Current San Francisco Bay area residents favored. Please send resume to **BioBridge Associates, Inc., 2160 St. Andrews Rd., Half Moon Bay, CA 94019.**

## POSTDOCTORAL SCIENTISTS

### Molecular Biology

The Upjohn Company, a recognized leader in pharmaceutical research and development, currently has several excellent opportunities for Postdoctoral Scientists in our Upjohn Laboratories Division.

**MOLECULAR VIROLOGY:** Study the molecular mechanisms of herpes simplex virus morphogenesis and DNA replication with the goal of identifying novel targets for antiviral chemotherapy. The successful candidate will have experience and background in molecular biology, virology plus solid knowledge of standard protein biochemistry and enzymology techniques.

**MOLECULAR RECOGNITION and PROTEIN BINDING:** Develop and use epitope and random sequence gene libraries as a tool to study the molecular basis of bioaffinity interactions and as a source of novel recognition molecules for use as peptide mimetics, receptor probes, bioaffinity ligands, and templates for drug design. Experience/strong interest in the areas of receptor biochemistry, immunology or bioaffinity chromatography preferred.

For these positions, we are seeking highly-motivated individuals with a recent Ph.D. in a related discipline. Appointments are for one year, renewable for a second. The Upjohn PRS Program reflects our commitment to stimulate new scientific thinking, to provide an excellent training environment for our PRS scientists along with a very competitive salary and benefits package. Qualified candidates are invited to forward their CV and cover letter describing education, research experience, publications, interests, objectives and availability date to: **THE UPJOHN COMPANY, CORP. RECRUITING/PRS PROGRAM 900659-019, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001 USA.** Refer to PRS Position Code 900659-019 in your correspondence. An Equal Opportunity Employer M/F.

*Our Commitment to Scientific Excellence Continues...*

**Upjohn**

## POSITIONS OPEN

### DIRECTOR, CENTER FOR BIOLOGICS EVALUATION AND RESEARCH

The Food and Drug Administration is recruiting for the director, Center for Biologics Evaluation and Research, located in Bethesda, Maryland. The position is in the senior executive service with a salary range of \$87,000 to \$104,600. The director, Center for Biologics Evaluation and Research, directs a staff of over 500 physicians, scientists, and support personnel engaged in research and regulatory activities concerned with biological products and blood and blood products. Applicants must have: an M.D. degree from an approved medical school or a Ph.D. or equivalent degree in a related biological, biomedical, or physical science; experience with the innovation, research and development, production, risk or benefit analysis, utilization, and regulation of biologicals and blood and blood products. He/she must be able to direct and lead a complex, diversified medical or scientific organization; effectively deal with key individuals in the federal and state governments, the medical and academic communities, professional and scientific organizations, consumer groups, and industry; and implement employment and career opportunities for minorities, women, handicapped, and special interest groups. It is desirable that candidates have research or clinical achievements; demonstrated background in the clinical pharmacology of human drugs, biologicals, and blood and blood products; demonstrated background in biologicals and blood and blood products.

If you are interested and want to be considered, send curriculum vitae or SF-171, Application for Federal Employment, to: **Jeylene Wood, Division of Human Resources Management, Food and Drug Administration, Parklawn Building, Room 4B-09, 5600 Fishers Lane, Rockville, MD 20857.**

If you need more information, you may call **Dr. Mary Ann Danello** collect on 301-443-6776.

This position can also be filled by current commissioned officers of the U.S. Public Health Service, or by former officers willing to rejoin the corps.

Applications will be accepted until 31 May 1991.

*An Equal Opportunity Employer.  
FDA is smoke-free.*

Department of Human Genetics, University of Michigan, is seeking a tenure-track **FACULTY MEMBER** in gene mapping and the molecular biology of human disease. Send résumé, statement of research interests, and names of three references to: **Thomas D. Gelehrter, M.D., Department of Human Genetics, University of Michigan Medical School, Ann Arbor, MI 48109-0618.** *Affirmative Action/Equal Opportunity Employer.*

### THE UNIVERSITY OF CALGARY FACULTY POSITIONS IN CELLULAR/MOLECULAR IMMUNOLOGY

The University of Calgary Faculty of Medicine invites applications for academic positions at the **ASSISTANT PROFESSOR** rank or higher for research in cellular or molecular immunology. Qualifications include a Ph.D., M.D. or equivalent, and interest and experience in immunology at the cellular or molecular level, particularly in the characterization of autoantigen at the molecular level, and molecular and cellular immunology related to pathogenesis of type I diabetes. Opportunities will be available for graduate and medical school teaching. Rank and salary commensurate with qualifications and experience.

The successful candidates will be expected to compete for salary and establishment grant support from the Alberta Heritage Foundation for Medical Research or the Medical Research Council, and will have 75% of time protected for research.

*In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities, and people with disabilities.*

Submit complete curriculum vitae, statement of research and goals, and three letters of reference by 30 June 1991, to:

**Dr. Ji-Won Yoon**  
Professor and Director  
Julia McFarlane Diabetes Research Center  
The University of Calgary  
3330 Hospital Drive, N.W.  
Calgary, Alberta T2N 4N1, Canada

## POSITIONS OPEN

### FACULTY POSITIONS IN NEUROBIOLOGY THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER

The University of Texas Southwestern Medical Center at Dallas is establishing a Neuroscience Program, which will be housed in new research buildings now under construction. The Department of Cell Biology and Neuroscience seeks applications for nine tenure-track positions at the level of **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR**. Applicants must have a relevant Ph.D. or M.D. degree and at least 2 years of appropriate postdoctoral training, and show evidence of a firm commitment to a career in independent research. We are particularly interested in considering individuals who wish to apply the techniques of biochemistry, biophysics, electrophysiology, genetics, or molecular biology to fundamental problems in cellular neurobiology. Responsibilities will also include teaching of medical and graduate students after the first year of employment. An applicant should send curriculum vitae, a brief description of proposed research, and either a list of references or three letters of references to:

**Neuroscience Search Committee  
Department of Cell Biology and Neuroscience  
University of Texas Southwestern Medical Center  
5323 Harry Hines Boulevard  
Dallas, TX 75235-9039**

*An Equal Opportunity/Affirmative Action Employer.*

### PEPPERDINE UNIVERSITY

**FACULTY POSITION.** Animal cell biology or animal physiology. Applications are invited for a two-semester, nontenure-track position to begin in late August of 1991. Subject to budgetary considerations, the appointment may be extended to 12 months and may be converted to a full-time, tenure-track position in 1992. The visiting appointment may be made at either the junior or senior level. The successful candidate will teach lecture/laboratory courses in biology for nonmajors and a course for majors in his/her area of expertise. The Ph.D. and a commitment to undergraduate teaching are required. The department operates a strong program of research for undergraduates, and the candidate should be capable of directing undergraduate students in independent research projects. Pepperdine is an independent Christian university under the control of a self-perpetuating Board of Regents and is related to the Churches of Christ. Submit letter of application containing a statement of teaching philosophy, names and addresses of three references, and curriculum vitae to: **Dr. Bennett Hutchinson, Natural Science Division, Pepperdine University, Malibu, CA 90263.** *An Equal Opportunity Employer.*

### FACULTY POSITION UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Physiology and Biophysics invites applications for a faculty position at the **ASSISTANT PROFESSOR** (tenure track) level commencing as early as September 1991. We are seeking candidates with the ability to define a significant research area in eukaryotic cell physiology, using modern techniques of cell biology, molecular biology, biochemistry, or biophysics. Examples of research interests would include cell signaling, differentiation and growth control, regulation of gene expression, intracellular processing and sorting of biomolecules, membrane formation and turnover, and the relationship of molecular structure to biological function. The position also involves teaching of medical and graduate students. We will begin considering applications starting 1 June 1991. Send curriculum vitae, a brief research description, and the names of three referees to: **Michael D. Cahalan, Chairman, Department of Physiology and Biophysics, University of California, Irvine, CA 92717.**

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

**DOCTORATE**, any field considered. Mature attitude, excellent teaching ability, congenial personality, and professional presence necessary. We train you for intensive laboratory instruction of surgeons. Permanent instruction site in St. Louis. Some travel required. Not a sales position. Salary: \$40,000. Write for application information to: **Director, Midas Rex Institute, 2929 Race Street, Fort Worth, TX 76111.** New applicants only, please.

## POSITIONS OPEN

### FACULTY POSITION

Immediate opening for a senior tenured or a junior tenure-track position in a newly formed interdepartmental Molecular Medicine Program at the University of Massachusetts Medical Center. Rank will be commensurate with ability and experience. The appointment will be in one of the basic science departments. The laboratories for the program are housed in a new building that contains approximately 80,000 square feet of modern research space. Core facilities for tissue culture, media preparation, DNA synthesis, protein sequencing and peptide synthesis, fluorescence-activated cell sorting, and transgenic mice are available. The position will be highly competitive with regard to start-up funds, laboratory space, and salary.

The program seeks an individual of outstanding research potential in the broadly defined area of eukaryotic molecular biology. Potential areas of interest include, but are not exclusive to, transcriptional regulation, RNA processing, oncogenes, and developmental biology. Applicants should send curriculum vitae, statement of research interests, and names of three references to: **Dr. Michael P. Czech, Director, Program in Molecular Medicine or Dr. Michael Green, Search Committee Chairman, University of Massachusetts Medical Center, 373 Plantation Street, Worcester, MA 01605.**

*An Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR GENETICIST PSYCHOPHARMACOLOGIST

Mayo Clinic/Mayo Medical School invites applicants for a **FACULTY POSITION** in the Department of Psychiatry and Psychology, in close collaboration with members in the Department of Pharmacology and/or the Department of Biochemistry and Molecular Biology. Candidates should have primary interests in major psychiatric disorders and be pursuing these interests with the methods of molecular genetics and/or molecular pharmacology. M.D. and clinical training in psychiatry are desirable but not required. Mayo will provide generous space and start-up funds in addition to an attractive package of salary and benefits. Academic rank will be determined by qualifications; established investigators are also encouraged to apply. Submit curriculum vitae with names and addresses of three or more references to: **Toshihiko Maruta, M.D., Chairperson of Search Committee, Department of Psychiatry and Psychology, Mayo Medical School, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Employer.*

Faculty Opening, **INSTRUCTOR:** Faculty of Department of Clinical Nutrition, University of Texas Southwestern Medical Center. Applicant must have Ph.D. and minimum of 1-year fellowship. The applicant must be trained in both lipid physiology and molecular biology and have the ability to bridge the gap between molecular-based and physiological-based research studies in the area of cholesterol/triglyceride metabolism, experience with tracers of dietary fat metabolism required, ability to perform DNA haplotype analysis highly desirable. Other responsibilities will include preparing curricula and teaching undergraduate students in the Department of Clinical Nutrition and medical students in the Center of Human Nutrition. Participation in departmental and intradepartmental lectures and conferences will also be required. Send inquiries, curriculum vitae, and cover letter to: **Scott M. Grundy, M.D., Ph.D., Director, Center for Human Nutrition, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9052.** Please do not telephone. *The University of Texas Southwestern Medical Center is an Equal Opportunity Employer.*

**INTERDISCIPLINARY (RESEARCH PLANT PATHOLOGIST/PLANT PHYSIOLOGIST).** Located at the U.S. Department of Agriculture (USDA), Forest Service, Southern Forest Experiment Station, Southern Hardwoods Laboratory, Stoneville, Mississippi. Develops guidelines to minimize disease losses in intensively cultured and multi-use natural stands of southern hardwoods. Emphasis is on developing hazard rating systems and biological and chemical controls for hardwood declines, oak wilt in live oak, and other important pests. Salary ranges from \$31,116 to \$44,348 per year, based on qualifications. Applicants must possess at least a master's degree. Contact: **Dr. James Solomon at 601-686-7218 or Dr. Walter A. Hough at 504-589-3003.** *The USDA is an Equal Employment Opportunity Employer.*

## POSITIONS OPEN

### INDEPENDENT SCIENTIST

The Neurobiology Laboratory, part of the Neuroscience Branch of the National Institute on Drug Abuse, Addiction Research Center, wishes to enhance its efforts in elucidating molecular and cellular mechanisms relevant to addition by recruiting an independent investigator with interests and expertise complementing existing programs in molecular pharmacology, molecular neurobiology, and brain imaging. Individuals with expertise in: (i) protein biochemistry (e.g., defining activity-dependent post-translational modifications of neuronal proteins or structures of drug receptors, and interest in establishing enhanced protein/peptide biochemical facilities); or (ii) cell biology (e.g., of drug neurotransmitter receptors and related second messengers) are especially encouraged to apply. The successful candidate will lead a unit or laboratory, depending on experience, with staff and resources available to take a leadership position in the field. Federal salary and benefits are competitive. M.D. and/or Ph.D. (biology, pharmacology) and U.S. citizenship required. Applicants are encouraged to apply to:

**Brian Butters, Neuroscience Search Committee**  
Addiction Research Center  
P.O. Box 5180  
Baltimore, MD 21224

*The ARC is an Equal Opportunity/Affirmative Action Employer, M/F/H/V, and is smoke- and drug-free.*

**PART-TIME LECTURERS**, East/West Marine Biology Program. For 1991-1992 and future years, part-time faculty positions available fall quarter (at Friday Harbor Laboratories, Washington), to teach (i) marine birds and mammals, (ii) phycology, (iii) oceanography; winter quarter (Discovery Bay, Jamaica) (i) tropical terrestrial ecology, (ii) biology of fishes. Expenses plus stipend—research encouraged. Please send curriculum vitae and letter of interest with names of three references as soon as possible to: **Dr. Trish Morse, Marine Science Center, Northeastern University, East Point, Nahant, MA 01908. FAX: 617-581-6076.**

*Northeastern University is an Equal Opportunity/Affirmative Action/Title IX Employer.*

**LIPID BIOCHEMISTRY/MOLECULAR BIOLOGIST.** Position is available in the Eicosanoid Biochemistry Workgroup of the Laboratory of Molecular Biophysics which studies trichidononic acid and linoleic acid metabolism by prostaglandin H synthase and lipoxigenases. The research involves the application of biochemistry, chemistry, and molecular biology to the study of the structure, function, and expression of these enzymes. These studies require the knowledge and expertise in lipid and/or protein chemistry with experience in the biosynthesis of prostaglandins and related lipids. Some expertise in molecular biology desirable. General requirements: Applicants must have a Ph.D. or equivalent degree in biochemistry, cell biology, molecular biology, physiology, pharmacology, or closely related field, and show evidence of ability to carry out independent research. Candidates with up to 6 years of postdoctoral research experience will be considered. For more information, contact: **Dr. Thomas E. Eling at 919-541-3911.** For prompt consideration, send cover letter indicating area of interest, curriculum vitae, and three letters of reference by 20 May 1991 to: **Mr. Bruce Wiggins (Code HNV30), National Institute of Environmental Health Sciences, Personnel Office, P.O. Box 12233, Research Triangle Park, NC 27709. NIH is an Equal Opportunity Employer.**

**LABORATORY SCIENTIST III.** Full-time position in the nutrition laboratory is available at the University of Maryland Eastern Shore (UMES), Princess Anne, Maryland. Applicants must have knowledge of field and desire to conduct research in the areas of nutrition and metabolism. Ph.D. preferred; will consider lower degrees with research experience. Starting salary is \$25,937 per year. Letters of application, including three letters of reference and curriculum vitae, should be sent to: **Director of Personnel, University of Maryland Eastern Shore, Princess Anne, MD 21853.** Closing date for applications is 30 May 1991. *Candidates must be prepared to demonstrate that they may legally accept employment in the United States. UMES is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### FACULTY POSITIONS IN MOLECULAR REGULATION OF CELLULAR SIGNALING

The Department of Pharmacology at the Duke University Medical Center is increasing its faculty as a part of a major expansion in the basic sciences. The department wishes to enhance its focus on molecular regulation of cellular signaling. Applicants are being sought who have a research background utilizing modern molecular biological and/or genetic technology and are interested in working in a collegial and interactive environment. Most appointments will be at the level of **ASSISTANT PROFESSOR**. Please send curriculum vitae, list of three references, and a brief description of proposed research to: **Dr. Anthony R. Means, Chairman, Department of Pharmacology, Box 3813, Duke University Medical Center, Durham, NC 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS AT CORNELL

Available now to work on (i) novel technology for the Human Genome Project and molecular biology of recombination (two positions), and (ii) regulation of HLA gene expression (one position). Prior experience in molecular biology required. Send curriculum vitae to: **Dr. Basil Rigas, Cornell University Medical College F-231, 1300 York Avenue, New York, NY 10021.**

**POSTDOCTORAL POSITION.** Available immediately at the University of California, San Francisco, to study molecular mechanisms underlying the regulation of gene expression by ethanol in neural cells. Send curriculum vitae and names of references to: **Dr. Michael Miles, Gallo Center, Building 1, Room 101, San Francisco General Hospital, San Francisco, CA 94110. The University of California is an Affirmative Action/Equal Opportunity Employer.**



## Hahnemann University

### DEAN OF THE GRADUATE SCHOOL AND VICE PRESIDENT FOR RESEARCH

*Hahnemann University invites nominations and applications for the position of Dean of the Graduate School and Vice President for Research.*

#### THE UNIVERSITY

Hahnemann University is a modern, progressive health sciences institution located in dynamic, center city Philadelphia. Hahnemann is comprised of the School of Medicine, the Graduate School, the School of Health Sciences and Humanities, and Hahnemann Hospital, a 616-bed tertiary care center. Approximately 2,000 students are matriculated in the three schools of the university, with over 500 candidates for advanced degrees enrolled in the Graduate School. The Graduate School offers advanced degrees in 20 basic science and clinical programs, with doctoral degrees awarded in 12 distinct areas. The Graduate School Faculty currently number more than 225 individuals, and sponsored research funding for the institution has recently progressed beyond \$14 million.

#### THE POSITION

The Dean of the Graduate School and Vice President for Research serves the University in dual capacities. As Dean of the Graduate School he/she reports to the Senior Vice President and Chief Academic Officer and is expected to contribute dynamic leadership in fostering excellence in graduate education as well as facilitating the recruitment of outstanding faculty and students. The Dean of the Graduate School is also expected to provide central leadership in the administration of Graduate School programs and planning as well as articulating and facilitating relationships between the Graduate School and the other two schools of the University. As Vice President for Research, this individual serves in a staff capacity to the Senior Vice President and Chief Academic Officer. It is anticipated that the Vice President for Research will function in a leadership and advisory capacity to the Chief Academic Officer regarding all aspects of research, coordinating efforts within the University, as well as between the University and external organizations both public and private. In both capacities of the position, it is expected that this individual will function in integrative relationships with others in leadership positions throughout the Hahnemann Hospital and University.

#### QUALIFICATIONS

Candidates should present with a distinguished record of academic leadership experience, preferably at the graduate level, and a demonstrated ability to function effectively with faculty, students, alumni and other central administrators in the University. An equivalent experience in industry would also qualify the candidate. Each candidate should demonstrate extensive administrative experience in graduate education and research, characterized by a scope and level of fiscal complexity consistent with the requisites of the current position. An earned doctorate in an appropriate area of science or medicine is required, as is a consistent record of accomplishment in sponsored research funding. In addition, a proven record of success in relating to government and private funding agencies, leadership experience in large collaborative interdisciplinary research programs and proficiency in interpersonal communication and public relations skills are highly desirable. The candidate must also be capable of achieving appointment as a tenured full professor in one of the academic departments at the University.

#### APPLICATION OR NOMINATION

Appointment of the new Dean and Vice President will take place on or about July 1, 1991. Applications should consist of a letter of interest, a curriculum vitae, and the names, addresses and telephone numbers of three to five professional references. Letters of application or nomination should be forwarded as soon as possible to:

**Dr. Leonard R. Derogatis**

**Chair, Search Committee for Graduate Dean & Vice President**

**HAHNEMANN UNIVERSITY**

**Broad & Vine Street**

**Philadelphia, PA 19102-1192**

**Fax Number: 215-448-7301**

*Hahnemann University is an Equal Opportunity, Affirmative Action Employer and invites and encourages applications from women and minorities.*

## POSTDOCTORAL FELLOWSHIP

### GASTROINTESTINAL PHARMACOLOGY

MARION MERRELL DOW INC.  
KANSAS CITY, MO

Marion Merrell Dow Inc. is seeking applications for a postdoctoral fellowship in gastrointestinal pharmacology to be located at its Kansas City, MO site. The area of research will focus on aspects of intestinal electrolyte transport and its regulation. Key projects will stress: 1) the role of receptors, second messengers and ion channels in transport and, 2) inter-disciplinary collaborations with other departments with the company. Applicants must possess a Ph.D. degree in pharmacology, physiology, or biochemistry with an emphasis on intestinal transport. This 2-year fellowship is supported by a competitive salary and benefits package.

Qualified applicants are asked to send a current CV including a list of publications, the names, addresses, and phone numbers of three references, and a short statement of career goals to:

Dept: JFNP



MARION MERRELL DOW INC.

P.O. Box 9627  
Kansas City, MO 64134

Equal Opportunity Employer

## Geisinger Medical Center

### ASSOCIATE SCIENTIST POSITION

Position available for Associate Scientist (three years post-doctoral experience) and/or postdoctoral fellow. The successful applicant will be engaged in research on the biochemical and molecular mechanisms by which angiotensin peptides and other hormonal and pharmacological stimuli mediate cardiac muscle cell growth. There will also be the opportunity to engage in research defining the role of a localized intracardiac renin-angiotensin system in mediating cardiac muscle cell growth, with an emphasis on the regulation of the precursor genes for this system.

Competitive salary and fringe benefits are available. Please send CV and three names or letters of reference to: **Dr. Kenneth M. Baker, Weis Center for Research, Geisinger Clinic, North Academy Avenue, Danville, PA 17822-2611.** Equal opportunity employer M/F/H/V.

Geisinger

## POSITIONS OPEN

The Department of Ecology and Evolutionary Biology at Rice University seeks to fill a staff position as **LABORATORY COORDINATOR** to develop and implement introductory and advanced laboratories for undergraduate courses in ecology, behavior, evolution, and organismal biology. Experience with educational computing, including network management, is especially sought. Advanced degree required. Interested applicants should send a résumé and three letters of reference to: **J. M. Smith, Employment Office, Rice University, P.O. Box 2666, Houston, TX 77252** by 15 May 1991. *Rice is an Equal Opportunity/Affirmative Action Employer, M/F/H/V.*

**PLANT PHYSIOLOGICAL ECOLOGY.** One year, sabbatical replacement position at Idaho State University. Teaching responsibilities include undergraduate physiological ecology and graduate environmental physiology (both team-taught), plant ecology, and general ecology. Send résumé, letter that addresses preparation for teaching responsibilities, and names of three references to: **Dr. Rod Seeley, Chair, Department of Biological Sciences, Idaho State University, Pocatello, ID 83209.** Application materials should be received by 13 May 1991 but position will remain open until filled. *Equal Opportunity/Affirmative Action Employer.*

## POSTDOCTORAL POSITION

**POSTDOCTORAL POSITION.** Available starting July 1991 to join a group to study mechanisms of microvascular regulation, endothelial cell function in vivo with special emphasis on eicosanoids, EDRF, oxygen metabolites, and cyclic GMP. Background in micro-circulatory techniques and vascular smooth muscle work preferred. Minimum duration 2 years. Individuals with previous postdoctoral experience are encouraged to apply. Salary competitive. Applicants should send curriculum vitae, reprints if any, and names of three references to: **Gabor Kaley, Ph.D., Professor and Chairman, Physiology Department, New York Medical College, Valhalla, NY 10595.** Telephone: 914-993-4089. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION.** Available immediately to study expression and function of *Drosophila* neural peptides. Several *Drosophila* neural peptides from an important neural peptide family present in both vertebrates and invertebrates have been identified. Research projects will involve study of the expression and function of these peptides utilizing biochemistry, genetics, and molecular biology techniques. Candidates should have a Ph.D. with training in biochemistry, *Drosophila* genetics, or molecular biology. Please send curriculum vitae and names of three references to: **Dr. R. Nichols, University of Michigan, 1121 Natural Science Building, Ann Arbor, MI 48109-1048.** Telephone: 313-764-4467. FAX: 313-747-0884.

## DEVELOPMENTAL NEUROBIOLOGY

Two **POSTDOCTORAL POSITIONS** are available to study cellular and molecular mechanisms of neuronal differentiation in mammalian sensory systems. Projects include investigations of (i) sensory transmitter plasticity, (ii) regulation of growth factor responses, and (iii) neuron-target interactions using tissue culture, biochemical, molecular, and immunocytochemical methods. Case Western Reserve University has a large and highly interactive Department of Neuroscience with particular expertise in cellular, developmental, and molecular neurobiology. Funding for these positions is above the National Institutes of Health stipend level. Please send résumé and names of three references to: **Dr. David M. Katz, Department of Neuroscience, Case Western Reserve University School of Medicine, 2119 Abington Road, Cleveland, OH 44106.**

**POSTDOCTORAL POSITION.** Research in human genetics, involving new fluorescence probe technologies for gene mapping and investigation of genetic disease and chromatin organization. Experience and/or commitment to human genetics preferred. Opportunities for independent and collaborative research, available immediately. See *Science* 249, 928 (1990); *Cell* 57, 493 (1989). Send curriculum vitae with three references to: **Dr. Jeanne B. Lawrence, Department of Cell Biology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available summer 1991 for investigation of cellular/molecular mechanisms of neurodegenerative diseases. Laboratory utilizes an interdisciplinary approach to study degenerative disease associated with chronic alcohol abuse and aging. The position is within a program of research in several areas including cholinergic/amino acid neuropharmacology, synaptic plasticity, and trophic factors. Curriculum vitae and two letters of recommendation should be sent to: **Bruce E. Hunter, Ph.D., Department of Neuroscience, JHMH Box J-244, University of Florida, Gainesville, FL 32610.** An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** Available immediately to study pathophysiological mechanisms in immunologic recurrent pregnancy loss and thrombosis. Experience with cell culture, immunoassays, hybridoma technology, and/or prostaglandin chemistry desirable. Salary is \$21,000 to \$23,000 for the first year. Evaluation will begin 15 May 1991 and continue until a candidate is selected. Send curriculum vitae and three letters of reference to: **Dr. Neal S. Rote, Department of Microbiology and Immunology, Wright State University, Dayton, OH 45435.** Affirmative Action/Equal Opportunity Employer.

## POSTDOCTORAL POSITION

A postdoctoral position is available for an M.D. or Ph.D. with a strong background in molecular biology and immunology to study the immunogenetics of insulin-dependent diabetes. Research will focus on the molecular biology of  $\beta$  cell autoantigens and the abnormal immunoreactivity restricted by HLA-associated molecules. Send curriculum vitae with names of three references by 31 May 1991 to: **Dr. Åke Lernmark, Department of Medicine, RG-20, University of Washington, Seattle, WA 98195.** FAX: 206-543-3169.

*Equal Opportunity/Affirmative Action Employer.*

## POSTDOCTORAL POSITION IN MOLECULAR/CELLULAR BIOLOGY

A position is available immediately to study the molecular biology of proteins involved in the transfer of lipids among plasma lipoproteins. Research in progress focuses on regulation of expression of the gene encoding cholesterol ester transfer protein in a variety of cell types. Experience in molecular biology is necessary. Please forward your curriculum vitae and two letters of recommendation to: **Samir Deeb, Ph.D., Division of Medical Genetics, RG-25, University of Washington, Seattle, WA 98195.**

*An Equal Opportunity Employer.*

**POSTDOCTORAL POSITION.** Argonne National Laboratory has an opening for a fisheries biologist/aquatic ecologist. The successful candidate, working with an interdisciplinary team, will be responsible for investigating the effects of daily dam operations on the native fishes, benthos, plankton, aquatic habitats, and water quality of the upper Colorado River. Qualifications are a Ph.D. in fisheries biology or aquatic ecology, with experience in assessing habitat requirements (including instream flow requirements) of fish. Experience with HSI, HEP, and IFIM preferred. Please submit curriculum vitae, the names and addresses of three references, and a personal statement of qualifications and research interests by 15 May 1991, to: **Susan Walker, Box J-EID-Postdoc-55, Employment and Placement, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439.** An Equal Opportunity/Affirmative Action Employer.

## POSTDOCTORAL POSITION

A postdoctoral position is immediately available to study the molecular biology of *Chlamydia trachomatis*. Relevant experience in recombinant DNA, immunology, and pathology is desired. Send curriculum vitae and names and addresses of three references to: **Luis M. de la Maza, M.D., Ph.D., Professor, Department of Pathology, Medical Sciences I, University of California, Irvine, CA 92717.** An Equal Opportunity Employer.

**SCIENCE** welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

FAX NUMBER: 202-682-0816

SCIENCE, VOL. 252

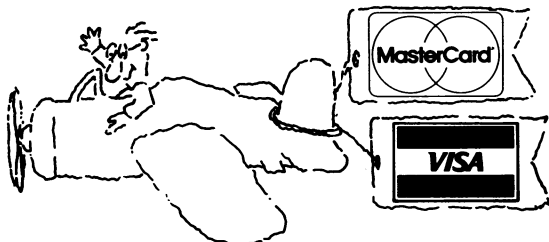
## Research Associate Immunobiology

Genentech, a leader in the biotechnology industry, is seeking a Research Associate for our Immunobiology department.

Within this department, you will join some of our exciting research to develop therapeutics for human disease. A strong background in molecular biology including at least 3 years' research experience is required. Experience in cell culture and receptor binding is desirable.

Our progressive company offers an exceptional compensation and benefits package and the opportunity to make a significant contribution to our organization. For immediate consideration, please send your resume to Genentech, Inc., Human Resources Dept. YSAA, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal opportunity employment.

### Genentech, Inc.

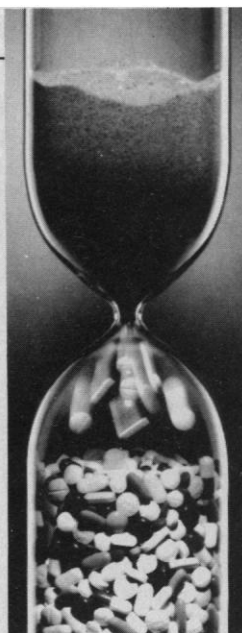


## ANNOUNCING A NEW SERVICE FROM SCIENCE

Now you can pay for your line classified ad with a credit card — we accept MasterCard and VISA.

Please let us know on your ad order that you wish to take advantage of this service, or ask us for further details.

SCIENCE Classified Advertising  
Tel: 202-326-6555 FAX: 202-682-0816



## A TIME FOR ACHIEVEMENT

*The opening of Glaxo Inc.'s \$350 million Girolami Research Center in Research Triangle Park, NC represents our continued commitment in the pharmaceutical industry to the discovery of drugs for unmet patient needs. Scientists engaged in Glaxo's expanding research and development programs at the Center have a premier facility in which to work. The following opportunity is now available:*

### INTRACELLULAR RECEPTOR BIOCHEMIST *Cellular Biochemistry Department*

*We are seeking a Receptor Biochemist to establish a laboratory focusing on cellular regulation via the modulation of intracellular hormone receptor activity. The laboratory will function as one unit of interdisciplinary teams in the therapeutic areas of cancer and metabolic diseases.*

*The successful candidate should have a Ph.D. in Biochemistry or related area of study with at least two years of postdoctoral experience. A strong background in *in vitro* receptor biochemistry and an interest in related therapeutic areas is required, as is the ability to establish fruitful collaborations with other laboratories with similar therapeutic targets.*

*Our Research Triangle Park, NC location (near Raleigh, Durham and Chapel Hill) is unequalled for people who seek a well-rounded lifestyle. This world-famous scientific, industrial, and academic community affords access to respected universities, beautiful residential areas, major retail centers, excellent health care and abundant cultural and recreational facilities. Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction.*

*Send your resume, including salary history, to: Human Resources Department, Job #9126B142-SC, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.*

## Glaxo Inc.

## THE INTERNATIONAL RICE RESEARCH INSTITUTE

### Position Announcement for

### PROGRAM LEADER, RAINFED LOWLAND RICE PROGRAM

The International Rice Research Institute (IRRI), a member of the Consultative Group on International Agricultural Research (CGIAR), is a nonprofit autonomous organization engaged in research and training in rice-related technology. Its goal is to enhance rice production and sustainability to benefit the world's 1.3 billion people who are dependent on rice for their livelihood and as their basic food. IRRI seeks a Program Leader for its Rainfed Lowland Rice Program who will work with interdisciplinary teams of scientists from the biological, physical, and social sciences.

#### Responsibilities:

- Conduct and lead research on major production issues of Rainfed Lowland Rice.
- Provide leadership to the overall planning and administration of IRRI's Rainfed Lowland Rice Program.
- Participate actively in the implementation of IRRI's Five Year Work Plan and identify new research priorities.
- Support project coordinators, and determine with them the human, financial, and physical resources needed to implement research projects, and ensure program balance.
- Monitor, review, and evaluate research and project budgets and take corrective action when necessary.
- Coordinate program reporting through annual reports, reviews, and other mechanisms.
- Provide dynamic leadership at key sites and within the research consortium for rainfed lowland rice in collaboration with national programs.

#### Qualifications:

- PhD in biological sciences, preferably in agronomy.
- Experience in coordination and management of science (vision and leadership capability).
- Experience in rice, particularly in Asia, is highly desirable.
- Excellent ability to speak and write in English.
- Proven scientific capability as evidenced by publication record and other scientific contributions.

#### Benefits:

Salary and perquisites will be commensurate with those of similar international institutions and programs in agriculture. The person chosen for the position will live at IRRI Headquarters on the campus of the University of the Philippines at Los Banos, 60 km south of Manila.

#### Application:

Applications with full documentation, including three referees (or the names of nominees) should be addressed to Dr. Klaus J. Lampe, Director General, IRRI, P.O. Box 933, 1099 Manila, Philippines. Telephone (63) 2-818-1928; FAX: (63) 2-818-2087.

#### Deadline:

Applications should be received not later than 15 May 1991. Interviews of short listed applicants will commence as soon as possible.

## UNIVERSITY OF HAWAII AT MANOA DEAN, COLLEGE OF NATURAL SCIENCES

The University of Hawaii at Manoa invites nominations and applications for the position of Dean of the College of Natural Sciences. The individual chosen must be a dynamic leader with a strong commitment to excellence in teaching, research and service and have a vision of the College's future that is compatible with Hawaii's unique attributes.

**Duties:** The Dean serves as chief academic and executive officer of the College and reports to the University of Hawaii Senior Vice President for Academic Affairs. The College of Natural Sciences is one of four colleges in the Colleges of Arts and Sciences, and consists of 150 faculty members in eight departments (Botany, Chemistry, General Science, Information and Computer Sciences, Mathematics, Microbiology, Physics and Astronomy, and Zoology), one program (Biology) and two interdisciplinary graduate specializations (Ecology, Evolution and Conservation Biology, and Marine Biology). The Dean oversees an annual budget in excess of \$10 million.

**Minimum Qualifications:** Qualified candidates must have an earned doctorate in the natural sciences or a related discipline; satisfy the College's and University's requirements for tenure as a full professor; possess significant professional teaching and research experience; have a substantial national reputation as a scientist, educator and/or administrator; have knowledge of higher education instructional and research policies and issues; and have three years academic or scientific administrative experience.

**Desirable Qualifications:** Candidates should be committed to the ideals of a liberal university education and to excellence in science education; have knowledge of higher education trends, issues and developments in both undergraduate and graduate education; be able to operate within a university setting exhibiting competence in fiscal and personnel matters; have experience as a dean, associate dean or equivalent position in a program of comparable size and diversity; exert positive leadership for faculty, students and the larger professional community in an environment of consultation and delegation of responsibility; have the capability to generate, communicate and implement a clear vision of science education and research for the University and State; understand the complexities and requirements of education and practice in a multi-cultural context; be able to interpret the College's mission and achievements within and outside of the University; and have demonstrated leadership in the acquisition and management of substantial budgets and private and governmental funding as well as have extensive knowledge of the needs of the various natural sciences represented in the College.

**Starting Date:** Preferred, January 1, 1992 or as soon thereafter as possible.

**Salary:** Commensurate with qualifications.

**Applications and Nominations:** The committee plans to begin reviewing applications on August 1, 1991, and anticipates inviting candidates to the campus in early Fall 1991. Applicants should send a letter of application, current curriculum vitae, names, addresses and telephone numbers of three professional references, and a concise statement of how they meet the minimum and desirable qualifications. Applications should be sent to: Dr. Madeleine J. Goodman, Assistant Vice President for Academic Affairs, University of Hawaii at Manoa, 2444 Dole Street, Bachman 105, Honolulu, Hawaii 96822

Inquiries concerning this position should be communicated to Dean David Greenfield, Chair, Natural Sciences Dean Search Committee, (808) 956-7541.

The University of Hawaii at Manoa is an Affirmative Action, Equal Employment Opportunity Employer. Women, minority, and disabled candidates are encouraged to apply.

## FACULTY POSITIONS

The Salk Institute invites applications for faculty positions to expand its Program in Human Genetics. While applications relevant to all areas of molecular genetics will be considered, we are especially interested in individuals who will apply contemporary genetic approaches to study fundamental biological questions related to human heritable diseases or cancer. The Salk Institute has strong and interactive programs in Cancer Molecular Biology, Neurobiology, Growth Regulation, Gene Expression and Neuroendocrinology.

Candidates should send a C.V., brief summary of future research plans and arrange for three letters of reference to be sent to: **Dr. Geoff Wahl, Human Genetics Search Committee, The Salk Institute, 10010 N. Torrey Pines Rd., La Jolla, CA 92037.**

### THE SALK INSTITUTE

Equal Opportunity Employer M/F/V/H

## STAFF/ RESEARCH BIOCHEMIST

The Biochemical and Molecular Pathology Department at Merck Sharp & Dohme Research Laboratories is seeking an experienced biochemist with a strong enzymology background. Knowledge of UNIX and DOS with an interest in automation and robotics is desirable. This individual will be responsible for developing and implementing high capacity enzyme assays seeking novel agents from natural product sources. This person must be analytical, highly organized and possess good communication skills. The candidate must have a BS/MS or equivalent in Biochemistry.

Merck Sharp & Dohme Laboratories is located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration, send your resume and the names of three references to: **Human Resources Manager (R80-A3), Attn: Ad #72, P.O. Box 2000, Rahway, NJ 07065.**

An equal opportunity/affirmative action employer.



Merck & Co., Inc.

# SAUDI ARABIA

The King Faisal Specialist Hospital and Research Centre in Riyadh, Saudi Arabia has the following positions available.

**RESEARCH PROGRAMMER/ANALYST**-BS degree in a scientific discipline and experience working with biologists or clinicians in a computing capacity. Knowledge of Fortran and C and experience with PCs, VAXes or UNIX work stations.

**BIOMEDICAL STATISTICIAN**-PhD in Biostatistics or related scientific field, five years post PhD experience. Knowledge of biological image analysis or mathematical modeling of biological systems.

**CHIEF RESEARCH TECHNICIAN**-BS degree in life sciences and seven years research experience. Must be capable of establishing and maintaining mammalian fibroblast, lymphoblast, short-term myoblast and neuroblast cultures. Experience in molecular biology or biochemistry or a record of participation in publications is preferred.

**ASSOCIATE SCIENTIST**-Post-Doctoral position in the Virology and Immunology Section. Demonstrated research experience in cytokine effect on the immune response during infection (herpes viruses and papilloma viruses in particular), T and NK cell responses including cytotoxicity assays and characterizations of microbial antigens.

**ASSOCIATE SCIENTIST**-Post-Doctoral position with research experience in diagnosis of infectious diseases by nucleic acid probes and working experience with PCR and all molecular biology techniques. Knowledge of identification of antimicrobial resistance genes is desired.

**EXECUTIVE ASSISTANT**-BS degree in Hospital or Business Administration, MS degree preferred. Four years experience in management with scientific and research exposure preferred.

Benefits include potentially tax-free salary, liberal vacation and holidays, furnished housing and air transportation. To apply, send curriculum vitae to: **HCI, 2515 Park Plaza, Nashville, TN 37203. In Europe: HCI, St. Christopher's House, St. Christopher's Place, London, England W1M 5HD.** HCI is an equal opportunity employer.

HOSPITAL CORPORATION INTERNATIONAL



## CHAIRPERSON Department of Human Genetics

Allegheny-Singer Research Institute (ASRI) is seeking a qualified individual for the position of Chairperson of the Department of Human Genetics. ASRI is part of the Allegheny System—a major academic health system—which includes Allegheny Health Services (the non-profit parent corporation), Allegheny General Hospital (AGH), The Medical College of Pennsylvania (MCP), Allegheny Neuropsychiatric Institute (ANI), and Allegheny Health Foundation (AHF).

Responsibilities of the position include the establishment and direction of a Department of Human Genetics capable of achieving national prominence; fostering and overseeing the development of clinically relevant, independent and collaborative interdisciplinary research projects capable of competing for peer-reviewed, extramural funding; attracting a critical mass of productive researchers for the department; and the development of strategies to carry out the long-term mission to advance the clinical capabilities of AGH through early clinical application of research findings.

Eligible applicants should have a doctoral or equivalent degree and demonstrated accomplishments to qualify as a full professor at the Medical College of Pennsylvania, a minimum of five years of experience either directing or assisting with the direction of significant research in genetics, and demonstrated research credentials.

Interested candidates should apply by submitting a curriculum vitae to **Dr. Leonard L. Ross, Annenberg Dean, The Medical College of Pennsylvania, c/o Allegheny Campus, 320 East North Avenue, Pittsburgh, PA 15212.** An Equal Opportunity Employer.



ALLEGHENY-SINGER  
RESEARCH INSTITUTE

# PEPTIDE CHEMIST

Position available immediately for qualified peptide chemist to work in the Biological Resources Branch, National Institute of Allergy & Infectious Diseases, National Institutes of Health. Candidate should have expertise in synthesis, in purification and analysis of peptides. Experience in protein chemistry including compositional and sequence analysis would be helpful. Laboratory management experience is desirable. Plenty of resources available. Salary will be commensurate with credentials.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to:

**John E. Coligan, Ph.D., Chief**  
**Biological Resources Branch**  
**NIAID, NIH**  
**Building 4, Room 413**  
**9000 Rockville Pike**  
**Bethesda, MD 20892**  
**(301) 496-3213**

NIH is an Equal Opportunity Employer



## UNIVERSITY OF LONDON UNIVERSITY COLLEGE LONDON CHAIR OF MOLECULAR BIOLOGY

The College is seeking to appoint to this new Chair a scientist of international standing with an active research programme in the Molecular Biology of eukaryotic cells, preferably with interests in the products and consequences of gene expression (rather than gene regulation), to join a Medical Research Council (MRC) Laboratory Interdisciplinary Research Centre (IRC) in Molecular Cell Biology currently being established on the Gower Street campus at UCL. The IRC building will have excellent research facilities and will house 10–12 other research teams. It will have its own graduate student and senior fellowship programmes. The person appointed will play a leading role in developing these programmes and will also be able to develop research and other academic interactions within UCL.

Applications (11 copies: 1 from overseas applicants) should be sent to The Provost, University College London, Gower Street, London WC1E 6BT by 17 May 1991. Further details may be obtained from the Deputy Registrar. Persons interested in the post are encouraged to make informal contact with Professor C. Hopkins, Director of the IRC (Tel: 071-823 9137 or 225 8265; FAX 071-581 0865), Professor M Raff (Tel: 071-380 7016) or Professor D. Brown (Tel: 071-387 7050 ext. 3751).

Equal Opportunities Employer.

## POSITIONS OPEN

### POSTDOCTORAL POSITION PROTEIN ENGINEERING

Abbott Laboratories currently has a position available in our Corporate Molecular Biology Department. The candidate will develop methods to design, construct, and analyze novel peptides and proteins. The selected individual will apply modern techniques in gene cloning and mutagenesis, protein modeling, and selection methods employing filamentous phage. A Ph.D. or equivalent in biology or chemistry, laboratory experience in gene cloning, and previous participation in a protein structure-function project are required. This assignment will be for 2 years. For consideration, please send résumé to: **Ann Ribbens, Corporate Placement, Job #36071, Abbott Laboratories, One Abbott Park Road, Abbott Park, IL 60064.** *Abbott is an Affirmative Action Employer.*

### ABBOTT LABORATORIES

**STAFF FELLOWSHIP.** In the Malaria Section of the Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH), Public Health Service. The applicant will work on a program related to identifying recombinant proteins that will lead to protective immunity. The applicant should have a Ph.D. with experience documented with publications in cellular immunology and molecular biology of the malaria parasite. Salary range: \$24,000 to \$36,000, depending on postdoctoral experience. Send curriculum vitae to: **Louis H. Miller, Head, Malaria Section, Building 4, Room 126, NIH, Bethesda, MD 20892.** FAX: 301-402-0079.

*The NIH is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION THE ROCKEFELLER UNIVERSITY

A postdoctoral position is available to study the biosynthesis of glycosyl-phosphatidylinositol membrane anchors of eukaryotic cell-surface proteins. Projects revolve around the biochemical steps involved in the construction of the glycolipid and its transfer to protein, and genetic and biochemical approaches to studying enzymes involved in anchor biosynthesis in trypanosomes, yeast, and mammalian cells [see *J. Biol. Chem.* 265, 9033 (1990); *EMBO J.* 9, 4249 (1990)]. Previous experience with biochemistry and/or molecular biology is preferred, but not essential. Send curriculum vitae and names of two referees to: **Dr. Anant K. Menon, Laboratory of Molecular Parasitology, The Rockefeller University, 1230 York Avenue, New York, NY 10021.** *The Rockefeller University is an Equal Opportunity/Affirmative Action Employer.*

**CLINICAL CHEMISTRY FELLOWSHIPS** at Mayo Clinic. Seeking applicants for 1- or 2-year fellowships in training programs directed toward qualified individuals (Ph.D. or M.D. required) pursuing careers in clinical chemistry. Individuals completing the program are eligible for certification by the American Board of Clinical Chemistry or for subspecialty certification by the American Board of Pathology. Applications on file by July (pathology) or October (postdoctoral) 1991 will be considered for appointment in July of 1992. Contact: **Mary F. Burritt, Ph.D., Division of Laboratory Medicine, Mayo Clinic, Rochester, MN 55905,** for more information. *Mayo Foundation is an Affirmative Action/Equal Opportunity Educator and Employer.*

### POSTDOCTORAL FELLOWSHIP NATIONAL INSTITUTES OF HEALTH (NIH)

Vacancy for a postdoctoral fellowship in the Laboratory of Molecular Growth Regulation, NICHD, NIH. The successful candidate will be expected to conduct research on the role of RNA polymerase III-transcribed interspersed repetitive sequences in control of mammalian cell growth and differentiation. Applicants must possess an M.D. or Ph.D. degree or equivalent experience and have experience in techniques of molecular cloning, analysis of gene expression, protein purification, and mammalian gene transfer. Salary range: \$25,000 to \$38,000. Send curriculum vitae, statement of research experience, and three letters of recommendation to: **Dr. Bruce H. Howard, Laboratory of Molecular Growth Regulation, National Institutes of Health, Building 6, Room 416, 9000 Rockville Pike, Bethesda, MD 20892** by 10 May 1991. *NIH is an Equal Opportunity Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available 1 July 1991 in research related to human autoimmune diseases at the Harvard Medical School and the Center for Neurologic Diseases of Brigham and Women's Hospital. The position requires interest and/or expertise in human T cell immunology including T cell interactions and regulation by cytokines including TGF-beta. The position involves characterization of immunoregulatory T cell abnormalities in multiple sclerosis and other autoimmune diseases and investigation of mechanisms of immunologic tolerance in humans. Send curriculum vitae plus names and telephone numbers of three references to: **Dr. Howard L. Weiner, Co-Director, Center for Neurologic Diseases, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.**

**POSTDOCTORAL POSITION.** At Oak Ridge National Laboratory (ORNL) to do research on ultra-sensitive detection techniques as applied to DNA sequencing problems. Degree in analytical/physical chemistry or applied physics with background in optical spectroscopy preferred; should have experience with lasers and optics and background in instrumentation. For position information, contact: **J. Michael Ramsey, ORNL, P.O. Box 2008, Oak Ridge, TN 37831-6142.** For application material, contact: **Postgraduate Research Program/Genome, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117.** Telephone: 615-576-3456.

**POSTDOCTORAL FELLOWSHIP.** Position in molecular and cellular biology. A position is available immediately to identify and isolate the intracellular protein targets of oncogenic ras p21 protein. Candidates should have the Ph.D. degree with experience in molecular biology and protein biochemistry. Send curriculum vitae and three references to: **Dr. Matthew R. Pincus, Departments of Biochemistry and Pathology, SUNY Health Science Center, 750 East Adams Street, Syracuse, NY 13210.** Telephone: 315-464-6785 or **Dr. Paul Brandt-Rauf, Comprehensive Cancer Center, Columbia University, 60 Haven Avenue, New York, NY 10032.** Telephone: 212-305-3464.

### THE MORRISON MEMORIAL POSTDOCTORAL FELLOWSHIP

The Department of Biochemistry, St. Jude Children's Research Hospital (SJCRH), is enlarging its research efforts in the area of the molecular and cellular biology of signal transduction. As part of this expansion, the Board of Governors has established a memorial fellowship in honor of Dr. Martin Morrison, the founding chairman of the department. The research programs with the department are well equipped and offer recent Ph.D. or M.D. graduates the opportunity to participate in energetic multidisciplinary groups dealing with a range of basic and clinically oriented research. SJCRH offers a competitive stipend and annual review for reappointment. The beginning date of the fellowship is 1 July 1991. Current research programs within the department include:

- **W. Y. Cheung:** Regulatory properties and biological functions of calmodulin,  $Ca^{2+}$ -regulated enzymes and other  $Ca^{2+}$ -binding proteins.
- **J. Cleveland:** Transcriptional regulatory factors which control myeloid cell cycle progression.
- **J. N. Ihle:** Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation.
- **S. Jackowski:** Cell cycle regulation of membrane phospholipid biosynthesis.
- **C. Rock:** Role of phospholipid-derived second messengers in growth factor action.

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

**The Morrison Postdoctoral Fellowship**  
**Department of Biochemistry**  
**St. Jude Children's Research Hospital**  
**332 North Lauderdale**  
**Memphis, TN 38101**

*An Equal Opportunity/Affirmative Action Employer.*

**SCIENCE** recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

## POSITIONS OPEN

**POSTDOCTORAL PHARMACOLOGIST.** To work on  $\alpha_1$ -adrenergic receptor subtypes, second messengers, and effects of psychoactive drugs in cell cultures. Contact: **Dr. Kenneth Minneman, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322** by 31 May 1991. *Emory University is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION.** Two to three years available immediately in a laboratory that is cloning and expressing genes for the NMDA receptor from mammalian brain. Salary: \$22,000 to \$25,000. Area of study includes gene cloning, DNA sequencing, gene expression, protein purification, and ion channel measurements. Experience in molecular biology required. Deadline for applications: 6 May 1991. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Elias K. Michaelis, University of Kansas, Center for Biomedical Research, 2099 Constant Avenue, Lawrence, KS 66047.** *Equal Opportunity/Affirmative Action Employer.*



**POSTDOCTORAL RESEARCH ASSOCIATE.** Immediately available to characterize proteins of the newly discovered protozoan parasite, *Neospora caninum*. Candidate must have a Ph.D. in immunology or molecular biology. Salary is commensurate with experience (\$31,116 to \$37,294). Send applications (SF-171) to: **Dr. J. P. Dubey, USDA, ARS, Zoonotic Diseases Laboratory, Building 1040, BARC-East, 10300 Baltimore Avenue, Beltsville, MD 20705-2350.** Applications should be marked 2E003 and received by 1 July 1991. *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL RESEARCH FELLOWSHIP.** Available 1 July 1991. NIH-funded 2-year position for Ph.D. to study drug resistance and DNA topoisomerases in leukemia/colon cancer. Biochemistry, molecular biology, and tissue culture background desirable. *Must be U.S. citizen or permanent resident.* Send curriculum vitae to: **Dr. Robert Silber, New York University Medical Center (NYUMC), 550 1st Avenue, New York, NY 10016.** *NYUMC is an Equal Opportunity/Affirmative Action Employer. Applications from minorities are strongly encouraged.*

**RESEARCH ASSOCIATE.** Ph.D., biochemistry, cell/molecular biology; intracellular processing and secretion of regulatory proteins in endocrine cells. Excellent facilities. Available now. Contact: **David V. Cohn, Ph.D., Health Sciences Center, University of Louisville, Louisville, KY 40292.** Telephone: 502-588-7507; FAX: 502-588-7240. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS.** Available to study development of neuroendocrine systems, mechanisms of action of neuropeptides on anterior pituitary gland hormone secretion, and/or control mechanisms for reproductive hormone secretion. Candidates should have experience in molecular biology, developmental or cell biology, and/or reproductive physiology. Salaries are most competitive and negotiable. Send letter, curriculum vitae, and list of three references to: **Charles A. Blake, Chairman, Department of Anatomy, Cell Biology, and Neurosciences, School of Medicine, Columbia, SC 29208.** *An Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATE.** Position available for **EXPERIENCED ELECTRON MICROSCOPIST** with mastery of scanning and transmission electron microscopy; serial sectioning, morphometry, freeze fracture; to do low-temperature scanning, transmission, high-voltage electron and light microscopy of lung, run laboratory. Send curriculum vitae, reprints, and sample micrographs to: **Dr. Jacob Bastacky, 1-116, Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720.**

# Biophysicist

## BASF Bioresearch Corporation

The "Spirit of Innovation" thrives at BASF Corporation, a Fortune 100 Company, where innovative thinking creates new products, new services, and new worlds of technological excellence.

BASF Bioresearch Corporation, a wholly owned subsidiary of BASF Corporation, dedicated to becoming one of the world's largest biomedical research facilities, and concentrating on development of treatments for cancer and immune system disorders, has an immediate opportunity available for a Biophysicist to join the Biotechnology Group at our Cambridge location.

This new position in our expanding research division requires a scientist with a strong and extensive background in biophysics. You will coordinate the start-up of our Biophysics Laboratory. Your responsibilities will begin with the automation of assay systems as well as computer-assisted analysis of data which includes our DNA core facility for sequencing. You will also collaborate with the other scientists in setting up new equipment in the Biophysics Laboratory. To qualify, you must have a Ph.D in Physics or Biophysics and several years of experience. A background in Molecular Biology is preferred.

Share The Spirit of Innovation that has fueled the growth of BASF for over 125 years. Our compensation and benefits program are representative of our industry leadership position. For prompt consideration, please forward resume and salary history to: **Pamela S. Zupfer, Human Resources Supervisor, BASF Bioresearch Corporation, 64 Sidney Street, Cambridge, MA 02139.** An Equal Opportunity Employer

*The Spirit of Innovation*

# BASF



## GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

The Geneva Molecular Biology Research Institute of one of the world's most successful healthcare groups is offering a

### POSTDOCTORAL FELLOWSHIP

The successful candidate will join a team working on the molecular basis of cell death in the vertebrate nervous system. Preference will be given to candidates with experience in primary cell cultures and recombinant DNA technology but interdisciplinary research is encouraged.

The Glaxo Institute for Molecular Biology carries out long term research to support the company-wide effort to discover effective new medicines. It provides a dynamic research environment and encourages the publication of scientific results as well as collaborative projects with academic groups.

We offer an excellent salary and benefits package and opportunities for career development in one of the most attractive parts of Europe.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : Rita Gloor, Personnel Manager, GLAXO IMB S.A., 14, chemin des Aulx, Case Postale 674, 1228 Plan-les-Ouates, Geneva, Switzerland.



### THE SCIENCE RECRUITMENT 'FOUR-DAY CLOSE'

#### Now you can see your ad in **SCIENCE** four days after submission

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

Film (right-reading, emulsion face down) or full camera-ready art and insertion order must reach: **SCIENCE, Short Close Desk, 1515 Broadway, New York, NY 10036** by NOON Mondays (except for legal holidays when material must reach New York by NOON Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. 1/4, 1/2 or full page only.

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

You can call it "INSTANT RECRUITMENT."

For further information, telephone Ed Keller, Recruitment Advertising Manager, or Gwen Cantor, Advertising Traffic Manager at **SCIENCE**: 212-730-1050, or write to:

**SCIENCE, 1515 Broadway, NY, NY 10036**

**CURRENT DISTRIBUTION 160,000**

## POSTDOCTORAL SCIENTIST

# MOLECULAR GENETICS

SmithKline Beecham, a world leader in pharmaceutical research, has an immediate Postdoctoral Scientist opportunity available in its Biopharmaceutical Research & Development organization.

As a member of a research group actively studying the molecular genetics of retroviruses, the selected candidate will work on the mechanism of action of essential retroviral proteins, in particular, the transactivator of gene expression (tat) and the retroviral aspartyl protease.

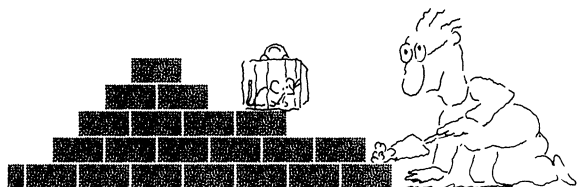
Requirements for this position include a Ph.D. in Molecular Biology or other biological sciences and a strong background in recombinant DNA techniques. Expression in microbial and/or eukaryotic systems as well as in gene cloning and tissue culture is highly desirable. Postdoctoral scientists are strongly encouraged to publish research findings and to attend external scientific conferences.

Our state-of-the-art research facilities are located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package and a stimulating environment in which to grow and excel. For confidential consideration, send your resume and the names of three references to: N. Hasson, Employment Administrator, #H0168, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. Equal Opportunity Employer, M/F/H/V.



**SmithKline Beecham**  
Pharmaceuticals

## We'll Help You Build A New Lab



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine  
New Lab Service Department  
1515 Broadway  
New York, NY 10036

The Global Weekly of Research  
**SCIENCE**

## SENIOR COMPUTER SCIENTIST THE GENOME DATA BASE and DIRECTOR

Laboratory for Applied Research in Academic Information

We seek an energetic and visionary scientist to lead an unique and innovative program. The Laboratory for Applied Research in Academic Information, a Division of the Welch Medical Library, provides leadership and comprehensive technical and educational systems and services support for 1) the Genome Data Base (GDB), a unique knowledge base supporting the international genome initiative; and 2) the Welch Library Information Systems and Network Services. Two additional programs are: 1) managing access to and use of genetic and other molecular biology databases and 2) developing a clinical clerkship knowledge base in collaboration with School of Medicine faculty. A staff of 25 FTE supports these projects. The 1991/92 budget will be approximately \$2.5 million.

Requirements: An advanced degree in computer science with experience in biological and life sciences, or a biological/life scientist with strong informatics knowledge and demonstrated success with the development and management of complex knowledge bases; a minimum of five years of experience; successful research grant and contract development and administration; and strong interpersonal skills. We wish to identify the successful candidate as soon as possible.

This is a faculty appointment within the School of Medicine. The level of appointment and salary will be commensurate with experience. Mail or FAX a letter of nomination or an application with curriculum vitae by May 1, 1991 to:

Nina W. Matheson, Director, Welch Medical Library  
**The Johns Hopkins University**

1900 E. Monument St., Baltimore, MD.

Internet: [nwm@welch.jhu.edu](mailto:nwm@welch.jhu.edu)

Voice: 301-955-2702/FAX: 301-955-0985

## SCIENTIST/ADMINISTRATOR FOR THE GENOME DATA BASE

We seek an energetic and visionary scientist/administrator to oversee day-to-day administration of the Genome Data Base (GDB). Roles include program planning, policy development, negotiations with international collaborators, and scientific support to GDB editors.

Requirements: Advanced training in biological or life sciences, with a strong interest in the development and management of complex gene mapping data; a minimum of five years of experience; successful research grant and contract development and administration; and strong interpersonal skills. We wish to identify the successful candidate as soon as possible.

This is a faculty appointment within the School of Medicine. The level of appointment and salary will be commensurate with experience. Nominations are welcome. Mail or FAX a letter of nomination or an application with curriculum vitae by May 1, 1991 to:

Peter L. Pearson, Ph.D., Director, Genome Data Base  
**The Johns Hopkins University**

1830 E. Monument St., Baltimore, MD. 21205

Internet: [pearson@welch.jhu.edu](mailto:pearson@welch.jhu.edu)

Voice: 301-955-9705/FAX: 301-955-0054

## POSITIONS OPEN



ARS is seeking an individual to conduct research on molecular aspects of disease resistance and plant-microbe interaction with emphasis on alfalfa. Incumbent will: (i) identify and clone plant genes related to plant disease resistance and plant-microbe interactions; (ii) manipulate and transfer cloned genes into elite germplasm via *Agrobacterium*, particle gun, and related technologies; (iii) evaluate expression of introduced genes in transformed plants; and (iv) cooperate with resident plant pathologists, physiologists, and geneticists to develop a comprehensive understanding of the molecular framework of plant-microbe interactions in alfalfa. Applicants must have a degree in genetics, plant pathology, or a related discipline. Knowledge of plant-microbe interactions, molecular genetics, and plant cell biology/plant development is required. A Ph.D. is desirable. *Must be a U.S. citizen.* Salary commensurate with experience; range: \$37,000 to \$44,000. For information on the research program and position, contact: **Dr. Carroll P. Vance, 612-625-5715.** For information on application procedures/forms, contact: **Beverly Webert, 301-344-1700.** Applications in response to this advertisement should be marked **1N028**, and must be received by 28 May 1991. *USDA/ARS is an Equal Opportunity Employer.*

**ASSOCIATE RESEARCH SCIENTIST.** Research position available in the Department of Neurology of Columbia University College of Physicians and Surgeons for Ph.D. interested in neurochemistry of Parkinson's disease and Alzheimer's disease. Applicants must have a background in biochemistry or neurochemistry with experience in modern analytic techniques applied to human biological fluid and tissues. Knowledge of tissue culture and monoclonal antibody techniques desirable. Preference given to individuals with evidence of research productivity. Send curriculum vitae and names of three references to: **Dr. Lucien Côté, The Neurological Institute, 710 West 168th Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE/POSTDOCTORAL/GENETICS.** For research on mechanisms of mutagenesis and the function of replication in mutagenesis. Preference for recent degree with experience in molecular biology, enzymology, and genetics. Send curriculum vitae and three references to: **T. K. Hyatt, Oregon Health Sciences University, Medical Genetics-L103, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201-3098. Telephone: 503-494-7191.** *An Equal Opportunity/Affirmative Action Employer.*

### RESEARCH ASSOCIATE

Position available to execute independent research on the studies on genomic and cDNA libraries prepared from somatic cell mutants with altered membrane transport characteristics. Required skills include DNA sequence analysis, PCR, Southern and Northern blotting, cloning, and gene transfer. A Ph.D. in molecular biology is required for this position. Starting annual salary will be \$26,000. Send curriculum vitae to: **Georgia Department of Labor, 1275 Clarendon Avenue, Avondale Estates, GA 30002, or the nearest Georgia Job Placement Center. Job Order #5475530.**

### RESEARCH ASSOCIATE

Design and execute independent research in the expression and molecular analysis of normal and mutated ion transport proteins. Required skills include construction of expression vectors, cell culture, gene transfer, DNA and RNA isolation, library construction and screening, DNA cloning and sequence, Southern and Northern analysis, in vitro transcription and translation, PCR analysis, site-directed mutagenesis, protein isolation and purification, chromatography, making antibody, Western blots, and immunofluorescence. Experience on analysis of DNA and protein with various computer programs is required. A Ph.D., majoring in molecular biology or dissertation defense is required. Starting annual salary will be \$24,000. Send curriculum vitae to: **Georgia Department of Labor, 1275 Clarendon Avenue, Avondale Estates, Georgia 30002, or to the nearest Georgia Job Placement Center. Job Order # GA 5475562.**

## POSITIONS OPEN

### UNIVERSITY OF ALBERTA RESEARCH ASSOCIATE

Research associate position available for investigating the molecular biology of autoimmune (type I) diabetes mellitus.

The applicant will be expected to have experience in molecular biological techniques, including RNA and DNA isolation and analysis, cDNA preparation, PCR amplification, plasmid isolation, sequencing, cloning, various isotopic labeling techniques (both RNA and DNA), RNA and DNA in situ hybridization, immunocytochemistry, and tissue culture. Salary range is from \$35,000 to \$45,000. The applicant will be expected to have a Ph.D. degree and postdoctoral experience.

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

Applicants should send a copy of their curriculum vitae and the names of two references to:

**Dr. Alex Rabinovitch, Department of Medicine  
430 Heritage Medical Research Centre  
University of Alberta  
Edmonton, Alberta T6G 2S2, Canada  
FAX: 403-492-3340**

Deadline for applications: 31 May 1991

*The University of Alberta is committed to the principle of Equity in Employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities, and women.*

**RESEARCH ASSISTANT.** The employee will conduct cell culture experiments and analyze secretion products by RIA; purify secreted products as needed by HPLC; perform Western blots of proteins in tissues and cultured cells; perform Northern blots of mRNA for the above proteins; quantify protein, mRNA, and lipoprotein-cholesterol by spectrophotometric methods and serum hormones and lipoproteins by RIA; and analyze data from above and assist in manuscript preparation. Position requires M.S. in biochemistry or physiology and 1 year of laboratory research experience. Applicant must be certified in the handling of radioactive materials. Working hours are 8:30 a.m. to 5:30 p.m., 40 hours per week. Salary: \$22,000 per year. Send résumés to **Sandra Starnes, Alabama State Employment Service, 3440 Third Avenue South, Birmingham, AL 35222. Reference Job Order AL0626917.**

### RESEARCH SCIENTIST IN MOLECULAR BIOLOGY

Virginia-Maryland Regional College of Veterinary Medicine, University of Maryland, College Park, invites applications for a faculty research scientist position in fish molecular virology. Initial appointment will be in the Maryland Agricultural Experiment Station for 3 years, with likelihood of becoming tenure track. Required: Ph.D. and postdoctoral experience. Submit résumé and have three reference letters sent to: **Dr. Edward Stephenson, Search Committee Chair, Regional College of Veterinary Medicine, University of Maryland, College Park, MD 20742.** Application deadline is 15 May 1991.

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

### POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS IN BRAIN METAL PHYSIOLOGY/TOXICOLOGY

Available immediately at the National Institute on Aging, National Institutes of Health, Public Health Service, Bethesda, Maryland, to examine (i) metal localization in postmortem human brain tissue and (ii) metal transport, distribution, and physiologic/toxicologic actions within the central and peripheral nervous systems of small animals in aging and disease. Methods include x-ray microanalysis, atomic absorption spectrometry, inductively coupled plasma-mass spectrometry (ICP-MS), and radiotracer courting. Experience in tissue sectioning and staining helpful. Positions available for up to 3 years with salary commensurate with qualifications. Send applications with curriculum vitae and names of three references to: **Dr. Quentin R. Smith, Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, Building 10, Room 6C-103, 9000 Rockville Pike, Bethesda, MD 20892. Telephone: 301-496-8970.** *NIH is an Equal Opportunity Employer.*

## POSITIONS OPEN

**ASSOCIATE.** Conduct research on neuroimmunological aspects of multiple sclerosis. Job duties will include cell culture, animal experimentation including injection of cells and emulsions, immunological techniques including enzyme-linked immunosorbent assay and radioimmunoassay, use of radioisotopes for cell incorporation, preparation of monoclonal and antibodies with hybridoma studies and cellular proliferation with various mitogens. Equipment to be used will include that for cell culture, gamma and scintillation counting, electrophoresis with transfer and blotting, regular and inverted microscopes, enzyme-linked immunosorbent assay reader, centrifuges, ultracentrifuges and spectrophotometers. Will serve as Assistant Director of the Multiple Sclerosis Research Laboratory. Must have M.D. or Ph.D. in immunology/neuroimmunology with 2 years of experience in multiple sclerosis research. Salary: \$30,290 per year; 8:00 a.m. to 5:00 p.m., 40 hours per week. Contact: **Sandra T. Starnes, Alabama State Employment Service, 3440 Third Avenue, South, Birmingham, AL 35222. Job Order #AL0626913.**

**RESEARCH ASSISTANT PROFESSOR.** To join a group investigating the molecular basis for active ion transport across cell membranes. Applicants must have Ph.D. and at least 3 years of postdoctoral experience in enzymology, protein chemistry, or molecular biology of membrane transport proteins. Experience using microorganisms for the heterologous expression of proteins is desirable. Send curriculum vitae, brief statement of research experience and career goals, and names and addresses of two references by 15 May 1991 to: **Dr. Robert A. Farley, Department of Physiology and Biophysics, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles, CA 90033.** *An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT RESEARCH BIOCHEMIST.** The University of California, San Francisco (UCSF), is searching for a molecular biologist (Ph.D. or M.D.) beginning July 1991. Candidates should have extensive knowledge of molecular biology and cell biology. Expertise to DNA cloning and sequencing, PCR, vector construction, site-directed mutagenesis, eukaryotic gene transfection, and a minimum of 2 to 5 years of postdoctoral experience are required. A background in oncogene and tumor suppressor gene molecular biology is desirable. Send curriculum vitae and names of three references to: **Dr. Young S. Kim, G1 Research Laboratory (151M2), VA Medical Center, 4150 Clement Street, San Francisco, CA 94121.** *UCSF is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT RESEARCHER.** To conduct research on neurophysiological mechanisms underlying the neural control of respiratory movements in mammals. Design and conduct experiments and use computer to model experimental data. Requirements: Ph.D. in kinesiology with research emphasis on neural control of respiratory movements. Demonstrated abilities in whole cell patch clamp recording, electrophysiological experiments, and computer modeling of experimental data. Ability to design electronic equipment to perform aforementioned experiments. Familiarity with numerical methods and ability to write real-time data acquisition and analysis programs running on VAX computers using C, FORTRAN, and Decwindow programming language. Job location/interview: Los Angeles. Salary: \$39,000 per year. Send this ad and résumé to: **Job #LQ6109, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 6 May 1991.

### POSTDOCTORAL RESEARCH ASSOCIATE

Two positions available immediately for recent Ph.D.'s to study: (i) role of cell cycle genes in the regulation of human megakaryocyte polyploidization and (ii) role of protooncogenes in regulation of normal and malignant human hematopoiesis. Projects rely heavily on "micromethodologies" for analysis of small cell samples and use of antisense DNA for determination of gene function. Prior experience with recombinant DNA techniques required, tissue culture experience highly desirable. Salary commensurate with experience. Send curriculum vitae and three letters of reference to: **Alan M. Gewirtz, M.D., Room 230, John Morgan Building, University of Pennsylvania School of Medicine, 36th Street and Hamilton Walk, Philadelphia, PA 19104.** *Equal Opportunity Employer/Affirmative Action.*

## 1992 COMPETITION

# MERCK-AFCR FOUNDATION MD-PhD POSTDOCTORAL FELLOWSHIPS

### FIVE FELLOWSHIPS AVAILABLE

Merck Sharp & Dohme Research Laboratories, through its Academic Development Program, and the American Federation for Clinical Research Foundation announce the 1992 competition for the Merck-AFCR Foundation MD-PhD Postdoctoral Fellowships to support the further training of MD-PhD scientists.

### FELLOWSHIP TERMS

- \* Candidates must have completed an MD-PhD educational program and be accepted into a postdoctoral training program.
- \* Candidates must provide evidence of 2 years of clinical training or have completed residency training at the time the award begins (July 1, 1992).
- \* Fellowships are intended for independent research in the biomedical sciences, including the fields of: biological chemistry; cellular, molecular and structural biology; epidemiology; genetics; medical informatics; microbiology; immunology; pharmacology, physiology; pathology.
- \* Candidates must be citizens of the U.S. or Canada or permanent residents of the United States.
- \* Fellows must devote 80% of his/her time to research. Each Fellow will spend up to three days in the Merck Research Laboratories during his/her tenure as award recipient and present research results. Travel support will be provided for the Fellow's mentor. The Fellow must maintain membership in the American Federation for Clinical Research and must submit an abstract to and attend a Regional or National AFCR meeting each year.
- \* First-year support consists of a \$40,000 stipend and a \$3,000 allowance for travel, journal subscriptions and society memberships. In addition, the recipient's university will receive a \$7,000 grant for supplies related to the funded research. Indirect costs will not be allowed.
- \* Fellowships may be renewable on an annual basis for an additional two years, pending approval of annual progress reports.

### FELLOWSHIP APPLICATION TERMS

All applications must be submitted on the official Merck-AFCR Foundation MD-PhD Postdoctoral Fellowship application form. Each application must include:

- \* A curriculum vitae
- \* One page abstract of the proposed research
- \* A proposal of 8 to 10 pages, including background and references
- \* A statement of the applicant's career goals
- \* Two letters of recommendation
- \* Two reprints of published papers representative of the applicant's research
- \* A letter from the applicant's mentor describing how the proposed research will contribute to the applicant's development as a creative scientist.

### IMPORTANT DATES

Deadline for receipt of applications - July 15, 1991. Fellowship recipients will be notified by December 15, 1991. Fellowships begin July 1, 1992, unless otherwise agreed.



### FOR APPLICATIONS AND INQUIRIES:

Merck-AFCR Foundation Fellowship Program  
AFCR Headquarters  
6900 Grove Road  
Thorofare, NJ 08086  
Phone: 609-853-9129, Ext. 293  
Fax: 609-853-5991



## National Institute of Mental Health

### Senior Staff Fellowship in Psychiatry and Molecular Genetics

Opening for a researcher with experience in clinical genetics of mental illness, and molecular biology, to pursue genetic linkage studies in mental illness.

**Requirements:** M.D., BE/BC in psychiatry, and at least four years of fellowship experience in molecular genetics.

**Salary:** Depends on education and experience. Federal salary range for Senior Staff Fellowship is \$32,000 to \$57,650.

**Contact:**

**Carl Merril, M.D., Chief  
Laboratory of Biochemical Genetics  
National Institute of Mental Health  
Neuroscience Center at  
St. Elizabeth's, Room 131  
2700 Martin Luther King Jr. Ave., S.E.  
Washington, D.C. 20032  
Phone: (202) 373-6081**

Send curriculum vitae, a description of research experience and names of three references.

NIMH is an Equal Opportunity Employer

### SORGHUM BREEDER/RESEARCH CENTER MANAGER

**Duties:** Develops and manages a comprehensive sorghum breeding, testing, and research program to develop and improve the varieties of sorghum to be grown in the southern and northern plains states. Insures goals for projects are accomplished in accordance with prescribed priorities, time limitations, and budgetary limitations. Establishes a permanent breeding station. Identifies and implements appropriate breeding strategies to develop superior inbred and hybrid sorghum plant characteristics such as yield, size, quality, maturity, and resistance to drought, disease, and insect pests utilizing principles of plant breeding and genetics. Selects germplasm and test sites for conducting and continuing the breeding process research. Works closely with sales, production, statistical, agronomic, biotech, and applied biology staff to coordinate activities and insure the best available germplasm selection techniques and production practices for breeding and producing products for prescribed areas. Reviews staffing requirements for projects, recruits, and supervises 2-3 full-time technical staff and approximately 10 part-time staff.

**Special Requirements:** Graduate or on-the-job research experience with U.S. and exotic sorghum germplasm and breeding techniques. Demonstrated ability to use electronic data collection devices (Polycorders) and SAS. Specific knowledge, as evidenced by course instruction or on-the-job training, of germplasm and hybrid needs for the Texas panhandle, Kansas and Nebraska.

Ph.D. in plant breeding and genetics or a related field required. Annual salary \$38,513.

Apply at the Texas Employment Commission, Plainview, Texas, or send resume to the Texas Employment Commission, TEC Building, Austin, Texas 78778, J.O. #6344360.

Ad Paid by an Equal Employment Opportunity Employer.

## POSITIONS OPEN

**RESEARCH ASSISTANT PROFESSOR AND A POSTDOCTORAL.** Research positions are immediately available to work with molecular biology of nuclear retinoid receptors. A doctorate in an appropriate field with experience in molecular biology, e.g., cloning, Northern blots, recombinant DNA techniques, characterization of DNA-binding protein desirable. Location is very desirable intermountain city. Send resume and three references before 15 May 1991, to: **Dr. R. P. Sharma, Toxicology Program, Utah State University, Logan, UT 84322-5600. Equal Opportunity/Affirmative Action Employer.**

**RESEARCH SCIENTIST.** Applicants are invited for a research scientist position. Candidates must have M.D. and/or Ph.D. degree. Strong background in immunohistopathology is required. Previous experience in hybridomas, antibody research, and tissue culture technologies desirable. Please submit curriculum vitae, publications, and names of three referees to: **Arie H. Barta, M.D., D.Sc., ImmunoSciences, Inc., 160 Community Drive, Great Neck, NY 11021. FAX: 516-466-2666. Equal Opportunity/Affirmative Action Employer.**

## MEETINGS

**INTERNATIONAL CONGRESS OF PYTO-THERAPY,** 16 to 19 October 1991 at Shilla Hotel, Seoul, Korea. Sponsors: Aloe Research Foundation U.S.A. and Pharmaceutical Society of Korea. The congress will be a forum for discussions and interactions between individuals from academia, industry, government, and business. Basic and clinical research studies of aloe, kampo and other plant medicinal substances as modifiers of neurologic, aging, immunologic, inflammatory, anti-microbial, and tumor activities will be presented. Invited presentations plus free communication platform and poster sessions are planned. Requests for abstracts (due July 1991) and congress information: **Dr. Wendell D. Winters, Congress Chairman, Department of Microbiology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78284-7758. Telephone: 512-567-3930 or FAX: 512-567-6612.**

## ANNOUNCEMENTS

### RESEARCH AWARDS

The International Life Sciences Institute Research Foundation (ILSI Research Foundation) announces that one award for a basic research project in **TOXICOLOGY** or **ENVIRONMENTAL HEALTH** (to include human nutrition), of up to \$100,000 over 3 years, will be made in 1992. The purpose of the award is to encourage an innovative new investigator in basic biomedical sciences to apply modern knowledge and techniques to basic problems related to comparative toxicology or environmental influences on growth, development, and aging. The closing date for applications is 3 September 1991. For further information, write: **Award Administrator, ILSI Research Foundation, 1126 16th Street, N.W., Suite 100, Washington, DC 20036.**

### THE ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE OF THE UNIVERSITY OF MIAMI SEEKS NOMINATIONS FOR THE ROSENSTIEL AWARD

The Rosenstiel Award is presented annually to recognize outstanding achievement and distinction in oceanographic science. The intent of the award is to recognize mid-career individuals who have contributed substantially towards new directions or understanding in their field. This year's award (including a prize of \$5000) will be presented for excellence in the fields of marine biology, biological oceanography, or fisheries. Nominations, including curriculum vitae and the names of three referees, should be sent by 15 May 1991 to:

**Rosenstiel Award Search Committee  
Division of Marine Biology and Fisheries  
Rosenstiel School of Marine  
and Atmospheric Science  
University of Miami  
4600 Rickenbacker Causeway  
Miami, FL 33149-1098**

## COURSES AND TRAINING

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room S, 424 Beacon Street, Boston, MA 02115.**

### ELEANOR ROOSEVELT INSTITUTE 1991 SOMATIC CELL AND MOLECULAR GENETICS WORKSHOP

The Eleanor Roosevelt Institute will again offer a Somatic Cell and Molecular Genetics Workshop, 15 to 28 July 1991. This NCI-supported laboratory course provides a combined somatic cell and molecular biology workshop experience. The course has been designed to provide a "hands-on" introduction to the methodology and concepts of current molecular biology procedures for scientists who need to exploit these techniques for their continuing research programs. The content of this workshop also provides the basic techniques needed for researchers interested in initiating genome mapping studies. Included in the curriculum are: somatic cell hybridization and mutant isolation, yeast molecular biology, isolation and analysis of DNA and RNA, preparation and in vitro translation of polyadenylated mRNA, DNA-mediated gene transfer, PCR, pulse-field gel electrophoresis, DNA sequencing, Western, Northern, and Southern analyses, one- and two-dimensional gel electrophoresis, and the preparation and screening of cDNA and genomic libraries. Principal investigators whose research interests focus on malignancy are particularly invited to apply. A registration fee of \$200 will be charged and a per diem stipend is provided. Applicants should submit a letter describing how the workshop will assist their current research, along with curriculum vitae which lists publications (no abstracts) for the past 5 years only, to: **Lynda Fox, J.D., Administrative Coordinator, Somatic Cell and Molecular Genetics Workshop, Eleanor Roosevelt Institute, 1899 Gaylord Street, Denver, CO 80206.** Please do not send registration at this time. Application deadline has been extended to 15 May 1991. *The Eleanor Roosevelt Institute is an Equal Opportunity/Affirmative Action Institution and invites and encourages applications from women and minorities. Open to U.S. citizens and permanent residents only.*

## MARKETPLACE


**DNA SEQUENCING**

- Fast. Accurate. Affordable.
- Definitive Nucleotide Sequence
- Subcloning, Mapping, *in vitro* Mutagenesis, Library Construction
- Complete Molecular Biology Services

**Ambion** 1-800-888-8804  
1-512-445-7139 FAX

Circle No. 299 on Readers' Service Card

**MYCOPLASMA TESTING  
SERVICES**



**Cell Cultures  
Sera  
Media**

**Bioproducts  
Vaccines  
GLP Testing**

**BIONIQUE TESTING LABORATORIES, INC.**  
RR 1 Box 2 Bloomingdale Road  
Saranac Lake, New York 12983  
518-891-2356 FAX: 518-891-5753

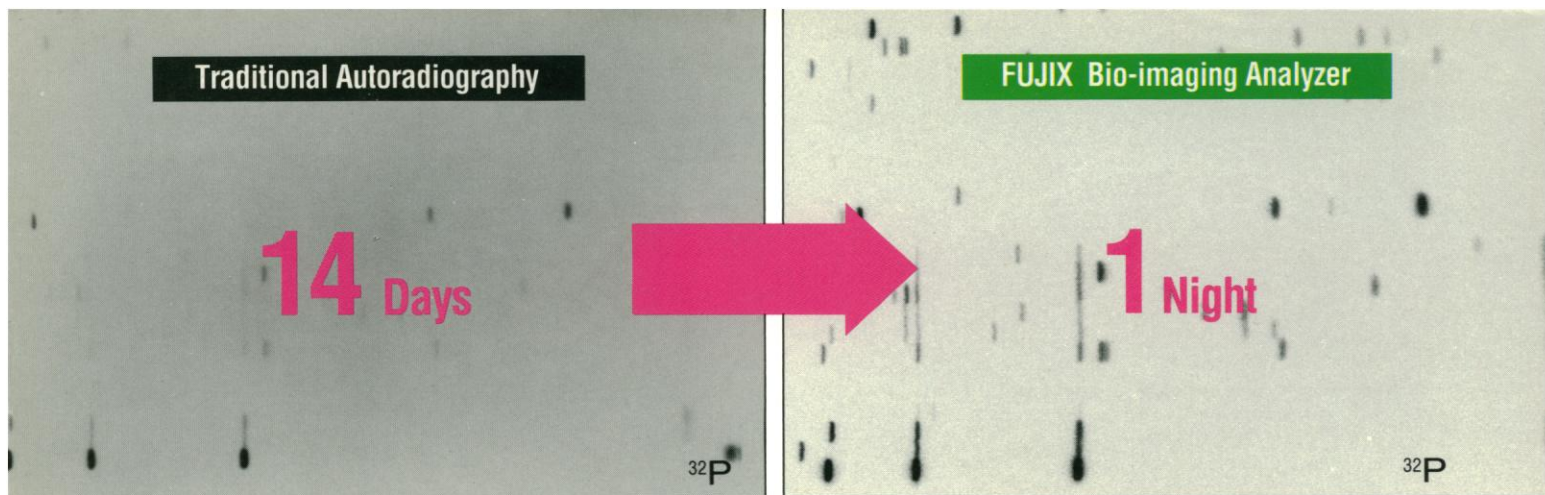
Circle No. 280 on Readers' Service Card

**Custom DNA  
Purified and  
Delivered in 48 hours.**

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

**Research Genetics**  
1-800-533-4363

Circle No. 10 on Readers' Service Card



# Accelerate Your Autoradiography

With the Fujix BAS2000 Bio-imaging Analyzer, autoradiographic exposures that take two weeks can be made overnight. Plus, you'll get high image quality and more accurate quantitation.

## FUJI'S PATENTED IMAGING PLATE

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.

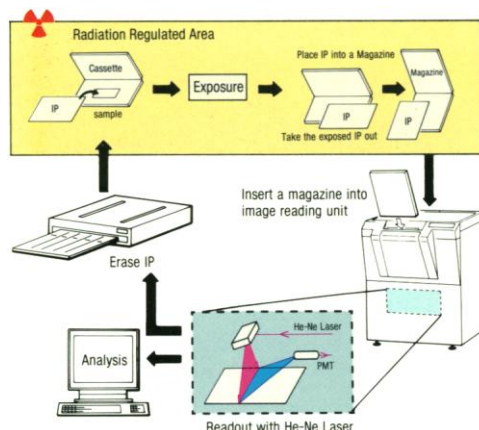
## TODAY'S MOST SENSITIVE TECHNOLOGY

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)



SPARC is a registered trademark of SPARC International, Inc. Products bearing SPARC trademark are based on an architecture developed by Sun Microsystems, Inc.

SPARCstation is a registered trademark of SPARC International, Inc., licensed exclusively to Sun Microsystems, Inc.

## FAST AND EASY TO USE

The powerful SPARCstation™ 2 provides high performance not only in overall speed but also in the display of detailed images on its high resolution monitor. The mouse-controlled image analysis software offers many functions including quantitation, molecular weight determination, contrast setting, magnification, and superimposition. Images are stored in the workstation's fixed storage or in a removable 150MB cartridge for later analysis.

## SUPERIOR PUBLICATION QUALITY HARD COPY

The Fujix photographic quality BAS HG Printer provides publication quality continuous tone black and white or color, prints or transparencies, without chemicals, darkroom, or plumbing.

## EVALUATE FUJIX BAS2000 WITH YOUR OWN SAMPLES!

To learn more about how Fuji can accelerate your autoradiography or to arrange to evaluate the Fujix BAS2000 with your own samples, call Fuji Medical Systems—Biomedical Department toll-free 800-431-1850, (in CT 203-353-0300) or write: Fuji Medical Systems USA Inc., 90 Viaduct Road, Stamford, CT 06907.



A new way of seeing things.  
Circle No. 298 on Readers' Service Card



## For fraction collection in any process, in any volume, in any tube size...

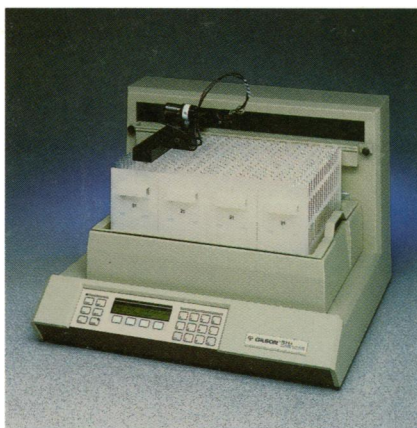
### ...you can depend on a Gilson fraction collector

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.

Except for size, the FC 204 is identical to the proven FC 203. Both collect by time, drop or peak with up to ten collection windows in any mode.



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

### Micro-Fractionators offer time and drop collection options

Gilson FC 80 and FC 100 Micro-Fractionators are two of the most popular time/drop collectors ever made. Tens of thousands are in use in LC systems, HPLC systems and other processes. The FC 80 occupies less than a

square foot of bench space but offers a total collected volume of 720 ml. The FC 100 offers 100-sample capacity in volumes up to 25 ml per tube.

### 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.

### For information on choosing the right fraction collector...

...request a free packet of literature that describes and explains all of the options. You can simply mark the reader service number, contact your local Gilson representative, or call us toll-free.

**GILSON®**

**Call 800-445-7661**

Gilson Medical Electronics, Inc., 3000 W. Beltline Hwy., Box 27, Middleton, WI 53562-0027 USA, Tel: 608-836-1551, TLX: 26-5478, FAX: 608-831-4451  
Gilson Medical Electronics (France) S.A., 72 rue Gambetta, B.P. No. 45, 95400 Villiers-le-Bel, France, Tel: (33) 1 34.29.50.00, TLX: 606682, FAX: (33) 1 34.29.50.80

Circle No. 212 on Readers' Service Card