

Blood or Cell DNA Kit

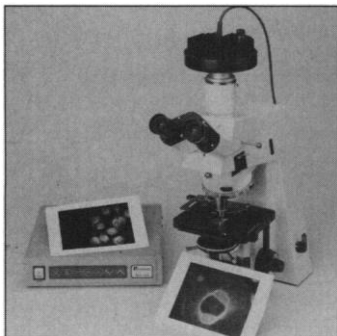
The QIAamp Blood Kit purifies DNA directly from whole blood or cultured cells for polymerase chain reaction amplification. In just 20 min, the DNA is free of hemoglobin and other contaminants and ready for direct addition to amplification reactions. The simple spin column procedure requires no cell separation, phenol/chloroform extraction, or alcohol precipitation. QIAGEN. Circle 138.

Nucleic Acid Purification

NUCLEOBOND AX, a silica-based anion exchanger for fast purification of nucleic acids, is available in cartridges in five different sizes to cover the purification range from nanogram amounts to 2 mg for DNA or 8 mg for RNA. Also available is NUCLEOBOND AX Kit, a ready-to-use separation system containing cartridges, buffers, reagents, and holder. DyChrom. Circle 139.

Color Camera for Microscopy

The TEC-470 is a thermoelectrically cooled charge-coupled device (CCD) color camera that produces sharp video images.



The CCD is cooled to 35°C below ambient temperature to allow true color display of images that exceed human vision. This remote-head camera has 470 lines of resolution and a signal-to-noise ratio of 53 dB. The elec-

tronic auto-exposure mode compensates for fluctuations in illumination from 13,000 to 0.0002 lux. This enables video inspection in bright-field, dark-field, Nomarski DIC, fluorescence, polarizing, and confocal microscope samples. Optronics Engineering. Circle 140.

Risk Assistant Software

RISK*ASSISTANT 2.0 software allows the user to estimate local chemical exposures and risks. It provides approaches for analyzing locally applicable exposures from different scenarios, including ingestion of drinking water, inhalation of vapors while showering, and dermal exposure while showering, ingestion of various foods, inhalation of vapors or particulates inside a residence, and dermal exposure while swimming. The system provides users with different types of uncertainty analyses, including the influence of alternative exposure assumptions, evaluation of the relative contribution of multiple exposure scenarios, and contribution of contamination in multiple environmental media to cancer risk. The program runs on IBM-compatible personal computers. Thistle Publishing. Circle 141.

High-Performance Gel Electrophoresis

The HPGE (high-performance gel electrophoresis) 1000 is the first fully integrated, computer-controlled electrophoretic system for rapid separation, identification, and retrieval of a wide range of biomaterials, according to the manufacturer. The 1000-V unit automatically delivers nucleic acid, protein, viral, and other samples onto an agarose or poly-



acrylamide gel and then maintains a precise environment with respect to voltage, current, buffer conditions, and temperature. During the run, it periodically scans the gel and displays fluorescently labeled zones (bands) in real time. The system provides software for post-run identification and quantification of zones, estimation of molecular sizes, and printing of results. Preparative capabilities include automatic retrieval of gel zones in seconds for use in subsequent experiments and electrophoretic concentration of dilute sample components in large volumes prior to separation. LabIntelligence. Circle 142.

Microdissected Fragments

Microdissected fragments from a specified single Giemsa-stained band in human metaphase chromosomes are available. Current resolution of the technique is ~300 bands per genome. At this resolution, the approximate DNA content of a band (fragment) is 10 million base pairs. The resultant fragments can be either amplified or cloned. BIOS Labs. Circle 143.

Germ Line Chimeric Mice

ESGRO is a product for researchers attempting to generate germ line chimeric mice. It is *Escherichia coli*-derived recombinant murine leukemia inhibitory fac-

tor supplied as a sterile solution in phosphate-buffered saline and 1% bovine serum albumin. It is used to maintain pluripotent murine embryonic stem cells. By providing a greater number of undifferentiated embryonic stem cells from which to choose, ESGRO makes successful blastocyst injections easier to perform. Life Technologies. Circle 144.

Literature

Olympus Immunochemicals: 1993-94 Catalog describes a line of monoclonal antibodies and related reagents for flow cytometry and cytokine and retrovirus research. Olympus Corp. Immunochemicals. Circle 145.

Quantix Environmental Workstation describes an on-site system for rapid quantification of environmental contaminants. Quantix Systems. Circle 146.

The Fast Filter Accessory describes an accessory for the LS-50B Luminescence Spectrometer that allows researchers to study rapid fluctuations in the concentration of intracellular calcium and magnesium or changes in pH by monitoring variations in the fluorescence probe. Perkin-Elmer. Circle 147.

COMPUVISION Digital Scanning Electron Microscope: DSM 962 provides 22 pages of information on this instrument. Carl Zeiss. Circle 148.

Chemicon '93: Immunological Reagents for Research and Diagnostics includes monoclonal and polyclonal antibodies, purified proteins, and diagnostic test kits. Chemicon International. Circle 149.

Quality Control: The Standardization of Immunostaining Assays is a color brochure that describes a four-part quality-control program for immunohistochemistry that addresses the issues commonly encountered in this testing. BioGenex. Circle 150.

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.

ATTENTION SCIENCE RECRUITMENT ADVERTISERS \$50 SPECIAL

Place your classified ad in any May-August 1993 issue of *SCIENCE* and get double exposure. We'll display the same position announcement at the **Employment Exchange** during **Science Innovation '93: The Conference on New Research Techniques** for only \$50 more.

When you place your classified ad in *SCIENCE*, simply let us know that you want to take advantage of the **\$50 SPECIAL** and we'll do the rest.

The **Employment Exchange** will take place at **Science Innovation '93 at the Hynes Convention Center in Boston, August 6-10**. Thousands of scientists have been invited to participate. Act fast and you can reach this unique pool of candidates.

Name _____

Title _____

Organization _____

Department _____

City _____ State _____ ZIP _____

Phone (____) _____ Ext. _____

FAX (____) _____

☐ Please post the enclosed Position Available Description(s).

☐ Please post the ad(s) from the _____ issue
of *SCIENCE*. Position Title _____

INSTRUCTIONS: 1) Complete form and prepare your position available description(s) on an 8 1/2" x 11" page (letterhead is acceptable). Description(s) should include: position title, educational and experience requirements, geographical location, field of work and duties, annual salary/range, position availability date, organization name, address, and name of contact person. 2) Submit appropriate payment (check, credit card information, or original purchase order) with completed form and position description(s) to the address above.

NOTE: Payment of posting fees for the Employment Exchange does not include meeting registration. If you wish to attend lectures, workshops, or sessions, you must register for the meeting.

POSTING/RESUME REFERRAL FEES:

- ☐ Per Posting: *SCIENCE* Advertiser \$ 50.00
☐ Per Posting: Non-Advertiser \$ 60.00

TOTAL AMOUNT SUBMITTED: \$ _____

PAYMENT:

- ☐ Check enclosed
☐ Please invoice, purchase order attached
☐ Will pay on-site
☐ Please bill my credit card: ☐ VISA ☐ Mastercard
Card# _____
Expiration Date _____
Signature _____

THE JOB & RESUME REFERRAL SERVICE includes the posting of position vacancy descriptions and the collection of candidates' resumes/CVs at the meeting. During the week following the meeting, collected resumes are forwarded to the employer at no additional costs. Employers interested in purchasing all resumes on file may do so by forwarding a written request and a check for \$250 (payable to the AAAS Employment Exchange) to: AAAS Employment Exchange, 1333 H Street, NW, Suite 1163, Washington, DC 20005. Phone: (202) 326-6737; FAX: (202) 842-1065.

SCIAD693

SCIENCE

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

- **Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Advertisements must be submitted in writing.
- **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.
- **Mail or FAX materials to:**
Science Classified Advertising
 1333 H Street, N.W., Room 814
 Washington, DC 20005
 Telephone: 202-326-6555
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- **Rates:** Ads are \$42 per line; \$420 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads.
- **Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Annemarie Vis at +44 223 302067 (telephone) or +44 223 302068 (FAX).
- **Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.
- **Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. about fractional display ads (all ads 1/8 page and larger), contact:

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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, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

POSITIONS OPEN

FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry at the University of South Alabama College of Medicine seeks applicants for a tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR** to begin by March 1, 1994. Very competitive salary, start-up funds and laboratory space are available. The successful candidate will join two other new faculty. Those whose research combines biochemistry, molecular biology and other experimental approaches to study mechanisms of human disease are especially encouraged to apply, but excellence of the individual is more important than his/her areas of study. Candidates must show strong promise of maintaining extramural funding. Faculty also will participate in the training of both medical and graduate students. Send curriculum vitae, a statement of research goals, representative publications and names of three references (by September 1, 1993) to: **Dr. Nathan N. Aronson, Jr., Chairperson, Department of Biochemistry (MSB 2150), University of South Alabama, College of Medicine, Mobile, AL 36688-0002.** *The University of South Alabama is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.*

MOLECULAR BIOLOGIST/ONCOLOGY

The Research Center of the Maisonneuve-Rosemont Hospital, affiliated with the University of Montreal, is recruiting for a **RESEARCH ASSISTANT PROFESSOR** for its Division of Oncology. Applicants must have a Ph.D. with extensive expertise in Biochemistry and Molecular Biology. Candidates should have a record of research productivity and independence in research. Send curriculum vitae, a one-page statement of research interests, and a list of three personal references to: **Dr. Claude Perreault, Research Center, Maisonneuve-Rosemont Hospital, 5415 boulevard de L'Assomption, Montreal, Quebec, Canada H1T 2M4.**

RESEARCH ASSISTANT PROFESSOR—A position is available immediately for a Research Assistant Professor in the Department of Pathology and Laboratory Medicine of the University of Pennsylvania School of Medicine. **JOB QUALIFICATIONS:** Ph.D. degree in a biomedical science with at least three years of postdoctoral experience in immunology and/or molecular biology required. General duties include the participation in and development of research programs in experimental human retrovirology including HIV. Individuals particularly interested in analyses of potential protective immune responses to HIV, such as those occurring during vertical transmission of infection, as well as novel vaccine development strategies are urged to apply. Specifically, the individual should be skilled in immunological, virological and molecular techniques such as ELISA assays, immunoblotting and molecular cloning and should have published previously in these areas. Interested individuals should send current curriculum vitae, a short summary of research plans, as well as the names and addresses of three references to: **David Weiner, Ph.D., Hospital of the University of Pennsylvania, 574 Maloney Building, Philadelphia, PA 19104-4283** by September 1, 1993. *The University of Pennsylvania is an Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR IFAS Center for Aquatic Plants University of Florida

The University of Florida is inviting applications for a Research Assistant Professor in weed ecology of species which cause economic impacts to agriculture and natural resources. Research emphasis will focus on the ecology/biology of aquatic and terrestrial exotic species and integration into management programs. Teaching will be required at the graduate level in weed ecology and physiology. Position is non-tenure-accruing. Applicant must have Ph.D. in Botany, Agronomy, Plant Sciences or closely related discipline with strong emphasis on ecology and aquatic ecosystems. Previous teaching, field/laboratory experience and knowledge of aquatic and terrestrial weed management will be beneficial. Salary range—\$30,000 plus (commensurate with qualifications). Qualified persons should submit a letter of application, biographical information, official transcripts of all degree programs and three letters of professional reference no later than August 1, 1993, to: **Dr. J. C. Joyce, Center for Aquatic Plants, 7922 NW 71st Street, Gainesville, FL 32606.**

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.

POSITIONS OPEN

EXTENSION NUTRITION POSITION

Nutrition Specialist (100%) with faculty rank (Extension Associate Professor/Professor). Qualifications: Ph.D. in food and nutrition required, R.D. preferred. Extension or teaching experience preferred. Major responsibilities: Develop, implement, and evaluate education programs emphasizing chronic disease prevention and maternal/infant nutrition. Provide training and educational materials to support statewide Extension programs. Acquire external funding. Salary commensurate with qualifications and experience. Apply by August 23, 1993, to: **Mark A. Kantor, Ph.D., University of Maryland, Computer and Space Sciences Center, Room 2309, College Park, MD 20742-2451.** Applications must include a letter of intent, résumé or curriculum vitae, transcript of all course work, and three current letters of recommendation sent directly by the writer to Dr. Kantor. *The University of Maryland is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR MOLECULAR GENETICS

THE DEPARTMENT OF GENETICS is seeking candidates for a tenure-track assistant professor position in the area of molecular oncology and gene therapy of cancer, starting on September 1, 1993. Candidates must have a Ph.D. in molecular biology, virology, oncology or equivalent plus at least three to four years of postdoctoral research experience. The position requires research accomplishments in virology and molecular oncology with background and training in the use of retroviral vectors, gene cloning and gene expression analysis. Experience in graduate-level teaching is desirable. Significant research accomplishments and evidence of outstanding research potential will be key considerations. Applicants should provide curriculum vitae, names and addresses of four references, and a brief statement of research interests and plans. To receive fullest consideration, applications should be received by August 1, 1993. Send application to: **Dr. Richard L. Davidson, Department of Genetics, Room 1404 CME, M/C 669, University of Illinois College of Medicine, 808 South Wood Street, Chicago, IL 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR (TENURE-TRACK, 10-MONTH APPOINTMENT), DEPARTMENT OF AGRONOMY, PURDUE UNIVERSITY. An individual is sought to develop an independent, extramurally funded research program in the molecular genetic aspects of environmental microbiology. Experience in the area of microbial genome organization, with an emphasis on microbiology of soils or biodegradation of xenobiotics is also desired. The successful candidate will teach courses in microbial genetics, degradation regulation, and will contribute to the overall graduate and postdoctoral training programs. Direct inquiries, letters of application, curriculum vitae and three references who may be contacted for letters of recommendation to: **Dr. William W. McFee, Head, Department of Agronomy, Purdue University, West Lafayette, IN 47907-1150** (Telephone: 317-494-4774). Applications will be accepted until September 15, 1993, or until the position has been filled. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT RESEARCH PROFESSOR

The University of Kentucky, Tobacco and Health Research Institute is seeking to hire an individual at the Assistant Research Professor (non-tenure-track) level with expertise in the area of vascular smooth muscle regulation in the microcirculation. Individual should have demonstrated abilities in isolated microvessel preparations, fluorescent microscopy, digital imaging processing and analysis, computer programming and standard micropressure measurements. A record of publications and grant support in the area is highly desirable. Applications accepted until 15 August 1993. Send curriculum vitae with names of 3 references to: **Ms. Elaine Fisher, University of Kentucky, Tobacco and Health Research Institute, Cooper and University Drives, Lexington, KY 40546-0236.**

The University of Kentucky is an Equal Opportunity Employer.

Postdoctoral Opportunities In The Biomedical Sciences.

Listed below are a few of the outstanding opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

Biochemistry and Molecular Biology **Rodney L. Levine, MD, PhD**

The molecular response to oxidative stress has been implicated in a remarkable number of physiologic and pathologic processes, including aging, protein turnover, ischemia-reperfusion, and many chronic diseases. Current studies focus on the biochemistry, molecular biology, and cellular biology of protein oxidation. Laboratory of Biochemistry (OE-35), NHLBI, Building 3, Room 106.

DNA-Protein Interaction **Ted Hackstadt, PhD**

The roles of *Chlamydia trachomatis* histone H1 homologs in the establishment of nucleoid structure and regulation of gene expression are being studied. This project complements ongoing basic studies of the interactions between host cells and prokaryotic obligate intracellular parasites. Applicants must be US citizens, possess a strong background in protein chemistry or molecular biology, and have less than five years of postdoctoral research experience. Laboratory of Intracellular Parasites (OE-35), NIAID, Rocky Mountain Laboratories, 903 South 4th, Hamilton, MT 59840.

HIV-CD4 Interactions and AIDS Therapeutics **Edward A. Berger, PhD**

The molecular mechanisms of HIV entry and tropism for specific CD4+ target cells are being studied. Fundamental understanding of these processes is essential for the design of CD4-based AIDS therapeutic strategies. The expression and functional analysis of recombinant proteins expressed by vaccinia vectors are accomplished using molecular genetic, biochemical, cell biological, and biophysical methods. A National Research Council associateship is available to eligible individuals. Laboratory of Viral Diseases (OE-35), NIAID, Building 4, Room 210.

Mammary Gland Biology and Neoplasia **Richard P. DiAugustine, PhD**

Ovarian-steroid regulated proliferation in the mammary gland is being investigated with a goal to identify the estrogen- and progesterone-induced growth factors involved. Transcriptional regulation of growth factor genes and perturbations of growth regulation in mammary cells derived from MMTV-TGF- α transgenic mice are also being studied. Candidates should have a background in molecular biology/biochemistry and less than five years postdoctoral experience. Laboratory of Biochemical Risk Analysis (OE-35), NIEHS, Building 101, Room D425, Research Triangle Park, NC 27709.

Molecular Embryology and Organogenesis **Yun-Bo Shi, PhD**

The molecular mechanisms by which thyroid hormone regulates organogenesis during *Xenopus laevis* metamorphosis are being investigated. The degeneration of larval organs and development of the adult organs are being studied with particular emphasis on the regulation and function of thyroid hormone response genes already

isolated, which include transcription factors as well as metalloproteinases that degrade extracellular matrices. Laboratory of Molecular Embryology (OE-35), NICHD, Building 6, Room B1A02.

Molecular Genetics of HIV Replication **Sundararajan Venkatesan, MD**

HIV-1 is being used to study post-transcriptional mechanisms of mRNA processing, transport, and translation and the role of cellular RNA binding proteins in modulating HIV gene expression. Other studies pertain to the HIV life cycle and address basic mechanisms of retroviral DNA integration, viral mRNA encapsidation, particle formation, and the effects of the Nef protein on T lymphocyte receptors. Laboratory of Molecular Microbiology (OE-35), NIAID, Building 10, Room 6A05.

Molecular Neurophysiology of Potassium Channels **Chris J. McBain, PhD**

Potassium channel expression during development and in pathophysiological conditions is being studied using *in situ* hybridization. Complementary studies of their role in the regulation of hippocampal excitability use patch-clamp electrophysiological techniques to record from both hippocampal interneurons and cell lines transfected with subunit combinations of cloned potassium channels. A strong background in molecular biology and less than five years postdoctoral experience are required. Laboratory of Cellular and Molecular Neurophysiology (OE-35), NICHD, Building 49, Room 5A78.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference by Internet (cu.nih.gov) or via modem (1,301-402-2221 or 1,800-358-2221). The settings for modem access are "7,Even,1". When connected to NIH, type in ",vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

The Postdoctoral Research Fellowship Opportunities catalog may be requested from the address below. An electronic version of the catalog may be accessed via the network-based (Internet) Gopher Information System. To access the NIH Gopher server, Gopher client software (available via anonymous ftp "boombox.micro.umn.edu") must be running on your computer and configured to point to "gopher.nih.gov", port "70". Select *Information for Researchers* to reveal the *NIH Office of Education* directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (e.g., MD, DO, DDS, or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



National Institutes Of Health

9000 Rockville Pike, Bethesda, MD 20892
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POSITIONS OPEN

The Department of Chemistry at Michigan State University invites applications from NMR spectroscopists with research interests in applying the techniques to biomolecular systems for a tenure-system faculty position that will be available starting fall 1994. The position will be filled at the **ASSISTANT PROFESSOR** level. The appointee is expected to establish a strong research program and to be committed to excellence in teaching at both the undergraduate and graduate levels. We would appreciate receiving curriculum vitae, a list of publications, a research plan, and three letters of recommendation by November 1, 1993. Please send them to: **Professor Gerald T. Babcock, Chairperson, Department of Chemistry, Michigan State University, East Lansing, MI 48824-1322.** *M.S.U. is an Affirmative Action/Equal Opportunity Institution.*

NEUROSCIENTIST/DIRECTOR, NEURAL INJURY LABORATORY

Ph.D. required. Non-tenure-track Assistant Professor position with a joint appointment in the Departments of Surgery and Physiology. Requirements include: familiarity with the fundamentals of ischemic, neoplastic and traumatic CNS injury, administrative and management skills required to establish and direct a brain and spinal cord injury research laboratory, and documented teaching skills. Applicants should send curriculum vitae, representative publications and 3 letters of reference to: **Edward Benzel, M.D., Division of Neurosurgery, University of New Mexico SOM, 2211 Lomas Boulevard, NE, Albuquerque, NM 87131.** *University of New Mexico is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR OF MOLECULAR BIOLOGY JOHN WAYNE CANCER INSTITUTE

The John Wayne Cancer Institute is seeking to recruit an internationally recognized molecular biologist to serve as the Institute's Director of Molecular Biology. Salary commensurate with qualifications and experience. The successful candidate is expected to have an ongoing research program supported by peer-reviewed funding and to maintain vigorous investigative studies that will continue to attract competitive grants.

The Institute provides a stimulating scientific and clinical environment. Our focus is the application of basic science research to the diagnosis, treatment, and prevention of cancer. Abundant patient and other clinical resources are available, as well as opportunities for collaboration with clinical oncologic investigators from the Institute and nearby universities. Ample, newly renovated laboratory space is ready for occupancy.

Letter, curriculum vitae, and list of three references should be sent to:

**Donald L. Morton, M.D.
President and Medical Director
John Wayne Cancer Institute
2200 Santa Monica Boulevard
Santa Monica, CA 90404**

Equal Opportunity/Affirmative Action Employer.

Candidates are solicited for the position of the **CHAIR** of the Chemistry Department of Florida State University. We seek an individual committed to strong leadership in both the undergraduate and graduate/research missions of the department. Applicants should be at the Full Professor level, have achieved international recognition and be committed to fostering the educational and research goals of the Department of Chemistry.

The Department currently has 39 faculty and 42 non-academic staff. It participates strongly in interdisciplinary programs at FSU such as the National High Magnetic Field Laboratory (high field NMR, ICR, etc.), Structural Biology, Molecular Biophysics, Material Sciences, Chemical Physics and Nuclear Science. The Department has a number of service facilities including a Laser and Raman Spectroscopy, NMR, MOCVD, X-Ray, MS, and Biochemical Analysis Laboratories.

Beginning date is flexible though a significant number of faculty additions are expected over the next two or three years and the involvement of the new chair in these appointments is highly desirable. Please submit curriculum vitae and the names of four references by September 1, 1993, to: **Gregory R. Choppin, Acting Head, Department of Chemistry, P.O. Box 3006, Florida State University, Tallahassee, FL 32306-3006.**

Florida State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

DIRECTOR OF ELECTRON MICROSCOPY: An Academic Professional position is available in the Center for Electron Microscopy, a facility emphasizing integrated microscopy, at the University of Illinois at Urbana-Champaign. Qualifications include an M.S. degree, or preferably a Ph.D., in the biological sciences with research experience in the modern techniques of electron microscopy as applied to biological samples. Experience in immunochemistry, immunoelectron microscopy and *in situ* hybridization highly desirable.

Responsibilities include active participation in microscopy and supervision of technical personnel and staff; coordination of individualized instruction in electron microscopy; initiation and organization of applications to external funding agencies for new equipment purchases. The director will provide leadership for the integration of different types of microscopies in this core research and service facility. The candidate should possess strong communication skills and ability to interact with faculty and students in a variety of disciplines on research projects utilizing microscopy in the biological sciences.

Salary commensurate with qualifications and experience. This is a regular, full-time, 12-month appointment beginning as soon as possible. Please send a letter of interest, résumé and names of three references to: **Dr. Janet H. Glaser, Associate Director, Biotechnology Center, 901 South Mathews Avenue, Urbana, IL 61801; Telephone: 217-333-1695.** All applications received by September 1, 1993, will receive full consideration. Interviews may begin before this date, but applications will be accepted until the position is filled.

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

PHYSICAL SCIENCE ADMINISTRATOR

Applications are invited for Chief, Test Management Division (GM-15), U.S. Army Dugway Proving Ground, Utah. The incumbent will direct defense testing of chemical, meteorological and biological programs. The chief will direct all activities performed by civilian, contract and military personnel in the division. These employees are engaged in conducting research studies, field and chamber testing in all aspects of chemical and biological defense testing of smoke obscuring, artillery mortars and other equipment. Incumbent is also responsible for development and performance of compliance programs, e.g., safety, chemical agent surety, and hazardous waste handling. *U.S. citizenship and top secret clearance are required.* Salary \$66,609 to \$86,589 per annum. Contact: **Ms. Jackie Wilde, Civilian Personnel Office, Dugway Proving Ground, Dugway, UT 84022-5000. Telephone: (801) 831-2181, Monday to Thursday, 7:00 a.m. to 5:30 p.m. MDT for application packet.** *An Equal Opportunity/Affirmative Action Employer.*

DIRECTOR—MOLECULAR BIOLOGY

Carolinas Medical Center, an 846-bed academic medical center, is seeking a Director of Molecular Biology for the Department of OB and GYN. Responsible for the development of research program and clinical testing. Candidate will be expected to attract funding and collaborate with the other 10 research sections of the James G. Cannon Research Center. Candidates should possess a Ph.D. and postdoctoral training in molecular biology or biological sciences with extensive experience in molecular biology research; medical, resident, and graduate student teaching and clinical laboratory accreditation. Candidates should be established investigators with major funding histories and publications in reviewed journals. Qualified candidates may submit résumés to: **Human Resources, Carolinas Medical Center, P.O. Box 32861, Charlotte, NC 28232.** *Equal Opportunity Employer.*

YALE UNIVERSITY SCHOOL OF MEDICINE POSTDOCTORAL POSITIONS IN LYME DISEASE PATHOGENESIS

Postdoctoral positions available to work with **Dr. Erol Fikrig** on the molecular and cellular immunobiology of Lyme disease. Preference will be given to applicants with prior experience in molecular biology, microbial pathogenesis or cellular immunology. From July 1, 1993. Send curriculum vitae and three letters of recommendation to: **Erol Fikrig, M.D., Section of Rheumatology, Yale University School of Medicine, 333 Cedar Street, 610 LCI, Box 3333, New Haven, CT 06510.** *Yale University is an Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION. Position available to study the endocrinology of insects or other invertebrates. Area of research open, although the primary interest of our group is hormonal host-parasite relationships. Position must be filled by August 31, 1993. *Candidate must be U.S. citizen or permanent resident.* Excellent salary. Send curriculum vitae and 3 letters of recommendation to: **Dr. Nancy Beckage, Department of Entomology, Boyce Hall, University of California, Riverside, CA 92521; (Telephone: 909-787-3521; FAX: 909-787-3087).**

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

POSTDOCTORAL POSITIONS VASCULAR CELL ADHESION RESEARCH

One position requires molecular biology background; expression cloning to be used in identifying molecules that regulate integrin adhesion receptor function. Second position requires background in protein biochemistry to identify adhesion molecules mediating sickle red cell adherence to endothelium and extracellular matrix. Specify position of interest and send curriculum vitae with names of three references to: **Dr. Leslie V. Parise, Department of Pharmacology, CB# 7365, University of North Carolina, Chapel Hill, NC 27599.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS COLUMBIA UNIVERSITY

The Department of Physiology and Cellular Biophysics is soliciting applications for postdoctoral researchers in the following areas of investigation: cell and molecular biology, membrane biochemistry and biophysics, vascular biology, and cellular immunology. Send curriculum vitae, a brief letter of interest and names and addresses of 3 references to: **Dr. S. Silverstein, M.D., Department of Physiology, Columbia University, 630 West 168th Street, New York, NY 10032.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

UCSF/San Francisco VA Medical Center POSTDOCTORAL POSITION CELL BIOLOGIST To Study Homeobox Gene Regulation of Hematopoiesis

The Molecular Hematopoiesis Laboratory has an immediate opening for a cell biologist to characterize the hematopoietic profile of transgenic mice carrying homologous deletions of homeobox genes and bone marrow cells transfected with homeobox expression plasmids. Contact: **H. J. Lawrence, M.D., Department of Medicine (111H), San Francisco VA Medical Center, 4150 Clement Street, San Francisco, CA 94121. Telephone: (415) 221-4810 x3340; FAX: (415) 386-4357.**

POSTDOCTORAL POSITIONS

Two grant-funded postdoctoral positions are available to begin on or soon after September 1, 1993. One is a study designed to identify, clone and characterize the functional role of analogs of *E. coli* RecA, RecBCD and RecF genes in mycobacterial pathogenesis. A second project will focus on understanding RecF protein function in *E. coli* DNA recombination and repair. Specifically, RecF protein interaction with RecA, RecO and RecR proteins will be investigated using genetic and biochemical approaches. Experience in microbial genetics and protein/DNA biochemistry with an interest in bacterial pathogenesis and drug resistance is necessary. Please send résumé, brief summary of research experience and names of three references to: **Dr. Murty Madiraju, University of Texas Health Center, Department of Microbiology, P.O. Box 2003, Tyler, TX 75703.** *Equal Opportunity/Affirmative Action Employer, M/F/V/D.*

POSTDOCTORAL POSITION available immediately to study molecular genetics of peroxisome biogenesis in yeast. Ph.D. in molecular/cellular biology. Interested individuals send curriculum vitae and names of three references to: **Dr. James M. Cregg, Department of Chemistry, Biochemistry, and Molecular Biology, Oregon Graduate Institute of Science & Technology, P.O. Box 91000, Portland, OR 97291-1000. Telephone: 503-690-1217.** *Equal Opportunity Employer.*

Scientific Research Opportunities at Pfizer.

Pfizer, a U.S. based multinational pharmaceutical company, has several immediate openings in the following areas for Research Scientists and Assistant Scientists in its expanding Central Research Division Laboratories located in Groton, Connecticut.

Research Scientists, PhD

Atherosclerosis—Join a multidisciplinary team seeking novel therapeutic agents for treatment of lipid disorders and atherosclerosis. PhD in Cellular or Molecular Biology as well as research experience in lipoprotein synthesis and secretion, reverse cholesterol transport, or arterial wall metabolism are required. Expertise in immunological techniques and/or the molecular biology of lipid metabolism and atherogenesis is desirable. Requires a minimum of 2 years postdoctoral training in a related area.

Cardiovascular—Join an active team of investigators in the discovery of novel therapeutics for the treatment of heart failure. PhD in Pharmacology, Physiology or related discipline as well as experience in the application of pharmacological, biochemical and physiological techniques to assess cardiac and vascular function in isolated tissue bath preparations required. Additional experience in molecular biology and/or use of *in vivo* models of heart failure desired. Requires a minimum of 2 years postdoctoral training; drug discovery experience highly desirable.

Assistant Scientists, BS or MS

Atherosclerosis—Study the Biochemistry and Physiology of cholesterol, bile acid and/or lipoprotein metabolism. Experience in the enzymology of key lipogenic enzymes *in vitro* and in culture cells is desirable. *In vivo* experience would also be advantageous. Requires 2 years of relevant laboratory experience.

Osteoporosis—Participate in the analysis of transgenic mouse models and the development of cell-based assays in order to elucidate mechanisms of hormone and drug action on bone. Experience in DNA/RNA isolation and hybridization techniques, primary cell culture, maintenance of established cell lines, immunohistochemistry, quantitative analysis, *in situ* hybridization of RNA, and flow cytometry desired. Two years relevant laboratory experience required.

Inflammation—Study novel drug therapy for inflammatory disorders by conducting *in vitro* analyses of drug interactions with specific receptors on white blood cells. Experience with cell fractionation, ligand/receptor binding assays, as well as ligand-mediated functional responses of cells, is desired. Two years relevant laboratory experience and the ability to work independently and summarize/communicate results effectively also required.

Pulmonary Biology—Be involved with a team investigating airway disease and dysfunction. Two years relevant laboratory experience required; previous *in vivo* and *in vitro* experience desired.

In addition to a stimulating research environment, we offer a competitive compensation and benefits package, including generous relocation assistance to this southeastern Connecticut shoreline community. Qualified applicants may send a resume and cover letter, indicating position desired and the names of three references, to: **Ms. E. Buller, Supervisor, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** We are an equal opportunity employer.



Central Research
Bringing science to life.

POSTDOCTORAL POSITIONS

La Jolla, California

The newly established Department of Neurobiology at The Scripps Research Institute, has available postdoctoral positions in the following areas:

CELLULAR AND SYSTEMS NEUROBIOLOGY

Will study problems related to the analysis of re-entrant pathways in the brain, studies of diffusible signals such as nitric oxide in brain development and control of molecular processes by signaling events. Other ongoing studies include: analysis of morphogenetic pathways during neural development; identification of signal transduction pathways activated by adhesion molecule binding; control of expression of adhesion molecules, particularly by pattern-forming genes such as *hox* and *pax*; and studies of overexpression or deletion of adhesion molecules in transgenic mice.

TRANSGENIC STUDIES IN CELLULAR AND MOLECULAR NEUROBIOLOGY

Will study various aspects of molecular, cellular and developmental neurobiology using embryonic stem cell technology and transgenic mice. Some major areas of interest are cell-cell and cell-substratum adhesion molecules, neurite outgrowth and nerve regeneration. Specific studies include: analysis of overexpression, mutation or deletion of adhesion molecules in transgenic mice generated from embryonic stem cells carrying altered adhesion molecule genes; studies of transgenic mice that express adhesion molecules in ectopic locations; analysis of elements that control the expression of adhesion molecules and their subsequent roles in the formation of morphogenetic pathways during neural development. Applicants should have a strong background in cellular and molecular biology and experience with embryonic stem cells or transgenic mice.

Send curriculum vitae and three letters of reference to: Dr. Gerald M. Edelman, Department of Neurobiology, SBR14, The Scripps Research Institute, 10666 N. Torrey Pines Rd., La Jolla, CA 92037. An Affirmative Action/Equal opportunity Employer.



Scientific/Senior Scientific Writers

Wyeth-Ayerst Laboratories, a Division of Fortune 100 American Home Products Corporation, currently has an opportunity available at its pharmaceutical research facility in Radnor.

Our clinical R & D Department seeks an individual to be responsible for writing, editing, abstracting, proofreading and revising a wide variety of clinical documents for U.S. and international drug registration and marketing support. Will also organize the presentation of clinical studies in New Drug Applications (NDAs) and write manuscripts and abstracts for publication. Ph.D. or PharmD. required. Demonstrated writing skills and the ability to organize scientific data are essential.

Please send your resume with salary requirements to: **Wyeth-Ayerst Research,**
Position #S-026-S, P.O. Box 8299,
Philadelphia, PA 19101. Equal
Opportunity Employer, M/F/D/V
responses encouraged.



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BioGenex, a San Francisco Bay area biotechnology company and a leader in the field of cellular diagnostics using immunohistochemical and nucleic acid-based technology, offers the following opportunities:

Research Scientist

Candidates should have training and experience in the development of diagnostic test kits and an advanced degree in Immunology, Cell Biology, Nucleic Acid Chemistry, or Biochemistry. Experience in the commercialization of technology is helpful.

Protein Chemist

Candidates should have training and experience in the development and production of monoclonal antibodies; the purification, characterization, and conjugation of proteins; and an advanced degree in Immunology, Organic Chemistry, or Biochemistry. Prior industry experience is helpful.

BioGenex offers a competitive salary, stock option plan, and excellent benefits. Send resume to:

BioGenex

Attn: Human Resources
4600 Norris Canyon Rd.
San Ramon, CA 94583

TRANSGENIC TECHNOLOGIST

The Ohio State University Biotechnology Program is seeking a qualified individual to manage the transgenic facility and to provide technical guidance to researchers throughout the campus in generating transgenic animals. Candidates for this staff position should have a minimum of two years experience in the field of transgenic mice, and preferably should have an M.S. or Ph.D. Send curriculum vitae and arrange to have letters of reference sent to: **Dr. John Oberdick, Transgenic Technologist Search Committee, Ohio State Biotechnology Center, 206 Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210-1002.** Screening of candidates will begin August 15, 1993.

The Ohio State University is

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POSTDOCTORAL OPPORTUNITIES

Hoffmann-La Roche is world renowned by the scientific community for its outstanding contributions to medical science. Our pharmaceutical and biomedical research teams have created a research-intensive environment where professionals excel.

We are currently seeking recent Ph.D. Scientists to join our Preclinical Research organization, located at our Nutley, New Jersey headquarters. Immediate opportunities exist in the following areas:

ONCOLOGY

■ Participate in research into the role of transcription factors and tumor suppressor genes in cell growth and antisense therapeutics for cancer. Requires a Ph.D. in Molecular Biology/Cell Biology. Experience in antisense preferred. *Please refer to position RN*

BRONCHOPULMONARY

■ Research focuses on the characterization of mechanisms of signal transduction following the aggregation of IgE receptors on mast cells and basophils. Studies include the characterization of novel receptor associated proteins, phospholipase A2 and phospholipase D, and their role during signal transduction. Requires a Ph.D. in Biochemistry, Molecular Biology, Cell Biology or Immunology. *Please refer to position JK*

■ Investigate the biochemical characterization of phospholipases which are involved in signalling mediated by high affinity receptor for IgE on mast cells and basophils. Studies involve the analysis and purification of these enzymes. Requires a Ph.D. in Biochemistry, Cell Biology or Immunology. *Please refer to position MB*

INFLAMMATION

■ Research focuses on the role of adhesion molecules on leukocyte migration and trafficking in animal models of inflammation. Studies involve the development of murine models and analysis of adhesion molecule expression and function utilizing neutralizing monoclonal antibodies and nucleic acid probes. Requires a Ph.D. in Immunology, Molecular Biology, Biochemistry or related field. Experience in cell and molecular biology techniques required. A background in cell adhesion highly desirable. *Please refer to position BW*

Roche is located on a 127-acre campus in an attractive suburban community just 10 miles west of New York City and its cultural and intellectual centers. We offer a highly competitive salary and benefits package in a multidisciplinary environment that stimulates personal and professional growth and encourages publication.

For consideration, please send your curriculum vitae, the names of three references, and your position code preference, to: **Mr. R.H. Stevenson, Assistant Director, Preclinical Research, Hoffmann-La Roche Inc., Nutley, New Jersey 07110-1199.** We are an equal opportunity employer.

ROCHE

Hoffmann-La Roche

PLANT BIOCHEMIST

ZENECA, Inc., formerly ICI Americas, an acknowledged leader in crop protection chemicals, is seeking a Plant Biochemist to join its biochemical research group in the San Francisco Bay Area. The successful candidate will design and implement plant biochemical studies in support of new herbicide discoveries.

The position requires a Ph.D. in Plant Biochemistry or closely related field and postdoctoral or equivalent experience in determining the mode of action of herbicides. Because much of the research will be conducted as part of interdisciplinary teams, good communication skills and knowledge of organic chemistry are essential. Evidence of originality in previous work is also desired since the position offers wide scope for innovation to promote herbicide discovery efforts. (The leveling of this position will be determined by the candidate's education and experience.)

ZENECA Inc. offers a competitive salary/benefits/relocation package and a stimulating work environment. For consideration, forward your resume in confidence to: Maria O'Connor, Human Resources Department, ZENECA Inc., 1200 South 47th Street, Richmond, CA 94804-0023. We are an Equal Opportunity Employer.

ZENECA
Ag Products

Research Biologist

Searle, a global leader in the pharmaceutical industry is seeking a Research Biologist who shares our commitment to developing new frontiers in pharmaceutical research.

This is an excellent opportunity for a biologist to operate a gamma scintigraphy camera and adapt nuclear medicine techniques to preclinical research applications. Additional job functions include handling gamma-emitting radioisotope and documenting use.

Qualified candidates must have a BS in Biology with 2-5 years experience in radioisotope handling (cell labelling techniques preferred), computer proficiency, and a background in in vivo research techniques, including surgery.

In addition to a challenging, innovative environment, Searle offers an excellent salary and benefits package. For consideration, please send your resume to: Searle, Human Resources, Dept. CM5, 4901 Searle Parkway, Skokie, IL 60077. EOE M/F/V/D.



POSITIONS OPEN

POSTDOCTORAL POSITION available to study the interaction of T cell receptors with peptide-MHC complexes using murine models of autoimmune disease (*J. Mol. Biol.* 224: 885, 1992). Experience in NMR and/or immunology is desirable, but applicants from other areas will be considered. Please send curriculum vitae and names of three referees to: **Dr. E. Sally Ward, Cancer Immunobiology Center and Department of Microbiology, U.T. Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-8576, USA.**

UT Southwestern is an Equal Opportunity Institution. We offer a non-smoking working environment.

POSTDOCTORAL POSITIONS are available at the Department of Cancer Biology, Harvard School of Public Health for the study of the pathogenesis, epidemiology, and molecular biology of cancers associated with viruses, including retroviruses; with lymphocyte immortalization and lymphoma development; also to study the role of oncogenes and related growth factors in human cancers; mechanisms of cell transformation; and the molecular regulation of T cell recognition.

These positions require an M.D., D.V.M. or D.D.S. *U.S. citizenship or permanent residency required.* One to three years of clinical training desirable but not required.

Send curriculum vitae, brief statement of research interest, and the names of three references to: **Dr. M. Essex, Department of Cancer Biology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

Harvard University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available to study human leukemia and prostate tumor growth regulation. Studies include: differentiation induction of tumor cells, characterization of cellular and molecular biology during tumor cell development and tumor-immune system interaction. The candidates must have a recent Ph.D. with strong background in molecular biology. Send curriculum vitae and names of three references to: **Professor J. W. Chiao, Department of Medicine, New York Medical College, Valhalla, NY 10595.**

POSTDOCTORAL POSITION MOLECULAR BIOLOGY

Immediate opening to study T cell recognition of autoantigens in EAE and MS. Experience in cellular immunology and gene cloning/expression required. Send curriculum vitae and references to: **Drs. Offner/Vandenbark, Neuroimmunology Research 151-D, VA Medical Center, Portland, OR 97221.**

POSTDOCTORAL POSITION IN ECOSYSTEM/COMMUNITY ECOLOGY

Available immediately to study the functional significance of tree species in northern forests. A cooperative project between the Ecosystems Center, Marine Biological Lab (Woods Hole, Massachusetts), Forest Science Department, Colorado State University, and the Rocky Mountain Forest and Range Experiment Station (Fort Collins, Colorado) is studying the impacts of climate change on forest structure and function. Individuals with interests in community ecology, ecosystem ecology and mathematical modeling are invited to apply by August 4, 1993, for this two-year position in Fort Collins. Salary is \$29,000. Questions may be addressed to **Don Gray (303) 229-0414.** If qualified please submit your résumé immediately to: **MACA, 2629 Redwing Road, Suite 110, Fort Collins, CO 80526.**

POSTDOCTORAL POSITION BIOMOLECULAR MATERIALS \$2180 to \$2290 per Month

Synthetic Organic Chemist (Ph.D. within the last three years) for development of novel biomolecular polymeric materials. Strong background in synthesis, purification, characterization (IR, MS, NMR) of organic/bio-organic compounds. Prefer experience in carbohydrate, peptide and/or polymer chemistry. Appointment is for one year with the possibility of renewal. Please send curriculum vitae, and three references, specifying **Job #G/8029** to: **Dr. Francois Tropper, Lawrence Berkeley Laboratory, University of California, Human Resources Department, Mailstop 938A, One Cyclotron Road, Berkeley, CA 94720. An Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION available to study molecular virology. Ph.D. graduates with productive research background in molecular biology are encouraged to apply. Send curriculum vitae, 3 letters and personal statement to: **Anna Lok, M.D.**, Tulane University Medical Center, 1430 Tulane Avenue, SL35, New Orleans, LA 70112. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION—DROSOPHILA MOLECULAR GENETICS: A position is open to study dosage sensitive regulatory genes affecting the expression of the *white* eye color locus in *Drosophila*. Experience with genetics/molecular biology is desirable. Please send curriculum vitae and the names and telephone numbers of three references to: **James Birchler**, Division of Biological Sciences, University of Missouri, Columbia, MO 65211; Email: birchler@biosci.mbp.missouri.edu. *The University of Missouri is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL INVESTIGATOR. To examine metal bioavailability to bivalves in San Francisco Bay, joint with USGS, Menlo Park, California. Appointment for at least 18 months. Must have experience in metal biogeochemistry and experimental use of radiotracers and be capable of intensive field work. Files received by August 1, 1993, are ensured consideration, although applications will be accepted until position is filled. Send curriculum vitae, names of 3 references and statement of interests to: **N. S. Fisher**, Marine Sciences Research Center, SUNY, Stony Brook, NY 11794-5000. *The University at Stony Brook is an Equal Opportunity/Affirmative Action Educator and Employer. Women and minorities are strongly encouraged to apply.*

POSTDOCTORAL POSITIONS IN CANCER PHARMACOLOGY AT THE UNIVERSITY OF CHICAGO

Positions available in the areas of anticancer drug development, clinical pharmacology and drug resistance. Individuals with a Ph.D. in pharmacology or pharmaceutical sciences, molecular biology, biochemistry or related field are encouraged to apply. Experience in HPLC, mass spectroscopy, drug metabolism, protein-DNA interactions and transcription factors or *in vitro* mutagenesis, especially desirable.

The investigators and their research interests are as follows:

M. Eileen Dolan, Ph.D.
DNA Repair/Drug Metabolism

Ahmad R. Safa, Ph.D.
Multidrug Resistance

Mark Ratain, M.D.
Drug Metabolism/Pharmacogenetics

Send curriculum vitae, a brief description of research experience and names of references to any of the above at **5841 South Maryland Avenue, MC2115, Chicago, IL 60637-1470.**

POSTDOCTORAL ASSOCIATE POSITIONS

POSTDOCTORAL TRAINING OPPORTUNITIES are regularly available with the **COLLEGE OF BIOLOGICAL SCIENCES** at the **UNIVERSITY OF MINNESOTA**. Positions may be available in the Departments of Biochemistry; Ecology, Evolution and Behavior; Plant Biology; and Genetics and Cell Biology. Positions may also be available in the following research programs: the Bell Museum of Natural History, the Gray Freshwater Biological Institute, the Biological Process Technology Institute, the Lake Itasca Forestry and Biological Station, and the Plant Molecular Genetics Institute.

A Ph.D. degree or foreign equivalent is required. Appointment is limited to three years.

The College maintains a file of applicants for Postdoctoral Associate positions for the current fiscal year from July 1, 1993, through June 30, 1994. All applications are reviewed when each position is established. Applications from interested persons must include personal curriculum vitae, a brief statement of research interests and experience, names, addresses and telephone numbers of three references, and specification of departments/programs of interests. Direct application material to: **Associate Administrator, College of Biological Sciences, University of Minnesota, 1479 Gortner Avenue #240, St. Paul, MN 55108.**

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Our entrepreneurial environment naturally evolves as a function of our mission: the development of recombinant DNA-based human therapeutics, utilizing the principles of cellular and molecular biology...through rapid product development and innovative commercialization strategies. We currently have opportunities for the following professionals:

Research Scientists in Protein Chemistry

Candidates will be working on the purification and characterization of natural and recombinant proteins. A Ph.D. in biochemistry or a related field coupled with 2-5 years postdoctoral experience in chromatography and electrophoretic techniques essential. Knowledge of ligands/receptors will be an asset.

At Amgen, we provide our employees with the freedom to manage their projects, regulate the quality of work and make decisions to further company goals. We back this freedom with meaningful challenge and responsibility, as well as a compensation and benefits package that reflects the level of our commitment. If you're interested in these positions, please submit curriculum vitae for confidential consideration to: **Amgen Inc., Staffing, Job Code OA-SC-BK-008, Amgen Center, Thousand Oaks, CA 91320-1789.**

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BIOCHEMISTS

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For more than 115 years, scientists at Eli Lilly and Company have been developing novel, high quality pharmaceutical products. With a current yearly investment of over \$900 million in research and development programs, our continued success in reducing the time required to get new drug candidates to market requires the finest scientific talent available.

To further build our research capabilities, we seek self motivated, innovative individuals with a BS or MS degree and who wish to play a key role in our Drug Discovery and Development Divisions. The openings require outstanding oral and written communication skills and good problem solving abilities.

The successful candidates will possess a degree in chemistry or biochemistry and experience in protein chemistry, including the purification and characterization of proteins using a number of chromatographic, spectroscopic and electrophoretic techniques. Expertise in immunochemistry, enzymology, or molecular biology is also desirable.

Eli Lilly and Company offers a competitive compensation and benefits package and a highly professional environment. Please forward your resume to: **Eli Lilly and Company, Scientific Recruitment, Dept. SC793, Lilly Corporate Center, Indianapolis, IN 46285.**

We are an equal opportunity employer committed to diversity in the workplace.



HEAD CLINICAL MONITORING

As part of the National Cancer Institute's Biological Response Modifier's Program, Program Resources, Inc. (PRI) operates a large clinical laboratory dedicated to providing state-of-the-art immunological support for a comprehensive program of clinical and laboratory research designed to investigate, develop and bring to trial potential therapeutic agents that may alter biological responses important in cancer growth and metastases.

Current clinical trials are investigating the use of a variety of biological agents including cytokines (IL-2, IL-1), Growth Factors (PIXY-32, G-CSF, GM-CSF, M-CSF), immunotoxins, autologous vaccines, adoptive immunotherapy, gene therapy, and monoclonal antibodies. Experience with assays relevant to looking at lymphoid populations in small tumor specimens, including in situ hybridization, PCR and in situ immunofluorescence is desired. We anticipate expansion of our activities to include the development of new vaccination strategies and the development of methods to assess the induction of specific T-cell immunity in cancer patients.

The successful candidate will coordinate protocol design and implementation to ensure the timely and accurate clinical monitoring of all patients enrolled in the BRMP oncology program. The incumbent will interface with scientists who conduct relevant clinical/preclinical research in order to expedite the translation of laboratory findings into cancer therapy. Incumbent will supervise a scientific/technical staff of 25 who are located in approximately 2,000 square feet of well-equipped state-of-the-art laboratories.

Applicants should have an MD and/or PhD in immunology with 5-10 years of related experience and an established reputation of directing and performing scientific programs is desired.

PRI offers a salary commensurate with credentials and a comprehensive benefits program, including insurances, a 401(k) savings plan and relocation assistance. For consideration, please forward CV/resume, references, publications list and salary requirements to Barbara J. Norton-Gill, Technical Recruiter.

PROGRAM RESOURCES, INC.

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Frederick, MD 21702-1201
EOE, M/F



RESEARCH ASSOCIATE Adhesion Biology Group

The Upjohn Company, a recognized leader in pharmaceutical research and development, has an opportunity available in our Adhesion Biology Group to conduct research activities involving the study of leukocyte and endothelial adhesion molecules.

Applicants for this position should possess a BS/MS degree in Biochemistry (or related field) and experience in protein chemistry, cell biology or molecular biology.

Upjohn offers a stimulating, multi-disciplinary research environment at our headquarters in Kalamazoo (a southwestern Michigan community located midway between Detroit & Chicago). An excellent salary and benefits package is provided. For confidential consideration, please send your resume to: **THE UPJOHN COMPANY, Attn: Corporate Recruiting, Position #169, 7000 Portage Road, Kalamazoo, MI 49001.** EEO/AA Employer.

Upjohn



UNIVERSITY OF CALIFORNIA,
SAN DIEGO
THE STEPHEN W. KUFFLER
PROFESSOR OF BIOLOGY



The Department of Biology is seeking applications and nominations for the Stephen W. Kuffler Endowed Professorship in Biology. The candidate must be an outstanding scientist and a recognized leader in biological research related to the nervous system, with proven ability as a scholar and a teacher. The chair is endowed by a generous gift in honor of the late Stephen W. Kuffler and is to be held for the academic tenure of the occupant.

Steve Kuffler contributed to the early development of neurobiology in La Jolla, where a robust environment has now created a large group of neuroscientists. The candidate will occupy laboratories in a new building and should enjoy interactions with colleagues both in the Department of Biology and throughout the community.

Applications should be submitted prior to August 31, 1993. Salary will be commensurate with stature and based on the UC scale. Curriculum vitae and bibliography should be sent to Ms. Mary Sue Webb, Biology Department 0346, University of California, San Diego, 9500 Gilman Dr., La Jolla, CA 92093-0346.

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At Becton Dickinson and Company, people don't just make discoveries—they make a difference. Here, individual initiative is prized and technical innovation expected. Join us today and make an impact on the Becton Dickinson DNA Probes Project. We are now seeking the following professionals for our suburban Baltimore, MD facility.

GROUP LEADER DNA Probes Development

Requires Ph.D. in biochemistry, microbiology, molecular biology, or related field and 5+ years of postdoctoral and/or industrial experience in the development of DNA probes for use in diagnostic applications. Requires ability to propagate microorganisms and to prepare, clone and sequence DNA fragments, as well as the ability to design, synthesize and isolate oligonucleotide primers. Must have knowledge of restriction enzyme specificities and be able to coordinate and direct activities of group.

SENIOR SCIENTIST DNA Probes Development

Requires Ph.D. in biochemistry, microbiology, molecular biology, or related field and 3+ years of postdoctoral and/or industrial experience in the development of DNA probes for use in diagnostic applications. Requires ability to propagate microorganisms and to prepare, clone and sequence DNA fragments, as well as the ability to design, synthesize and isolate oligonucleotide primers. Must have knowledge of restriction enzyme specificities.

GROUP LEADER Clinical Sample Processing

Requires Ph.D. in biochemistry, microbiology, molecular biology, or related field and 3+ years of clinical and/or industrial experience in the development of DNA probe assays based on DNA amplification technology (e.g., PCR). Requires ability to perform PCR amplification of target DNA in clinical specimens and to prepare DNA suitable for amplification (PCR) from clinical specimens. Knowledge of clinical microbiology sample processing methods and identification of microorganisms by standard growth-based methods as well as the ability to coordinate and direct activities of a group of scientists is also needed.

SENIOR SCIENTIST Clinical Sample Processing

Requires Ph.D., M.S. or M.T. in clinical microbiology or related field and 3+ years of experience working as a clinical microbiologist in a hospital or public health laboratory setting. Requires ability to identify mycobacteria using traditional staining and culture-based methods, experience processing large numbers of sputa for culture of mycobacteria and experience with BACTEC 460 and GenProbe systems for culture and identification of mycobacteria. Familiarity with other DNA-probe and amplification-based techniques for identifying mycobacteria and other pathogenic microorganisms as well as experience maintaining a viable collection of clinical isolates needed.

SENIOR SCIENTIST Biofermentation & Enzyme Prep

Requires Ph.D. or M.S. in biochemistry, molecular biology or related field and 3–6 years of experience (depending on degree) working in the cloning and expression of enzyme or protein reagents in bacterial systems. Experience in bench or pilot scale production and purification of enzyme or protein reagents by biofermentation and chromatographic processes (10–30 L) is a must. Must be experienced in cloning and expressing heterologous proteins in *E. coli* and operation of semi-automated biofermentation equipment. Requires experience in developing chromatographic, partitioning and other methods for purifying recombinant expression product from cell pastes or lysates and knowledge of restriction endonucleases and DNA polymerases.

At Becton Dickinson, we offer highly competitive salaries, comprehensive benefits, and research opportunities that are among the most stimulating in the industry. To apply in confidence, send your resume with salary requirements to: **Human Resources, Becton Dickinson Advanced Diagnostics, 10 Loveton Circle, Sparks, MD 21152.** Becton Dickinson is serious about our commitment as an AA/EEO Employer.

BECTON DICKINSON

Director, Radiological Health

The University of Utah seeks a Director of the Radiological Health Department. The Director is also the University's Radiation Safety Officer (RSO). The RSO is responsible to regulatory agencies for all aspects of protecting employees, patients, students and the general public from exposure to ionizing radiation utilized by the University and its employees. Qualifications of the Director and RSO are as follows: The RSO must be certified by (a) The American Board of Health Physics and Comprehensive Health Physics, (b) The American Board of Radiology, (c) The American Board of Nuclear Medicine, (d) The American Board of Science and Nuclear Medicine, or (e) The Board of Pharmaceutical Specialties in Nuclear Pharmacy; or candidates must have had classroom and laboratory training and experience as follows: (a) 200 hours of classroom and laboratory training in radiation physics and instrumentation, radiation protection, mathematics pertaining to the use of measurement of radioactivity, radiation biology, and radio pharmaceutical chemistry and (b) one year of full time experience as a radiation safety technologist at a medical institution under the supervision of the individual identified on the license as the RSO.

As the Director of the Radiological Health Department, the incumbent is responsible to the University for administration of the personnel, facilities, equipment and budget that are necessary to conduct the Radiation Protection Program. These responsibilities include determining the number and types of employees needed, the hiring, promotion, discipline or firing of employees and salary adjustments. The Director prepares the budget and controls department expenditures. He/She proposes radiation policies to the Radiation Safety Committee for approval and formulates department policies for implementing the radiation protection program. The Director is responsible for handling a budget of approximately \$500,000 and supervises thirteen (13) employees.

The University is an AA/EO employer and encourages applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

A letter of application, a current Curriculum Vitae, and three to five letters of recommendation should be submitted to:

Personnel Administration, c/o Shirley Watkins (SW 2624)
101 Annex
University of Utah
Salt Lake City, UT 84112
Closing Date for applications is August 31, 1993.

POSITIONS OPEN

EVOLUTIONARY BIOLOGY/ QUANTITATIVE GENETICS

POSTDOCTORAL POSITION open to help quantify the contribution of epistatic gene action to fitness in a native legume. Programming skills and a background in quantitative genetics desired. Starting date: January 2, 1994 (flexible). Send by September 15, 1993: curriculum vitae, addresses and telephone numbers of 3 references, and statement of research interests to: Dr. Charles B. Fenster, Botany, University of Maryland, College Park, MD 20742-5815.

POSTDOCTORAL POSITION—IMMUNOLOGY

Immediate opening to study T cell signal transduction in human autoimmune disease. Strong background in immunology or molecular biology with experience in tissue culture is required. Multidisciplinary effort involving Rheumatology and Microbiology. Send curriculum vitae and names of three references to: David A. Horwitz, M.D., USC School of Medicine, Division of Rheumatology & Immunology, 2011 Zonal Avenue, HMR 711, Los Angeles, CA 90033. *Equal Employment Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION TO STUDY MOLECULAR BIOLOGY OF mdm2 AND p53.

Position available immediately to study molecular mechanism of the tumor suppressor p53 and the cellular oncogene mdm2. Applications are invited from persons with a keen interest in this area of research. Current focus in the laboratories includes studies on the involvement of p53 and mdm2 in cellular transcription and growth. This challenging opportunity exists in our extremely well-equipped and intense laboratories. Persons with expertise in recombinant DNA technology and protein purification are especially encouraged to apply with complete curriculum vitae and names of three references to: Swati Deb, Ph.D., or Sumitra Deb, Ph.D., Department of Microbiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7758. *The University of Texas Health Science Center at San Antonio is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION— MUSCLE DEVELOPMENT

University of Texas M.D. Anderson Cancer Center


A postdoctoral position to investigate the *in vivo* role of the bHLH myogenic factor *myogenin* is available beginning December 1, 1993. The research involves using mice that have recently been generated with a null mutation in the *myogenin* gene. Homozygous mutant mice display severe skeletal muscle deficiency and die at birth. Requirements include experience in molecular biology and preferably some knowledge of mammalian muscle development. The position is available for up to three years and the stipend will follow NIH fellowship guidelines. Interested individuals should submit curriculum vitae and the names of three references to:

William Klein, Ph.D.
Department of Biochemistry and Molecular Biology,
Box 117
University of Texas M.D. Anderson Cancer Center
1515 Holcombe Boulevard
Houston, TX 77030

The University of Texas M.D. Anderson Cancer Center is an Equal Opportunity/Affirmative Action Employer and smoke-free workplace.

POSTDOCTORAL POSITION in immunology to study mechanisms that control T cell development and function, T cell repertoire selection, and cellular signals which determine cell fate. Emphasis on comparative studies of $\alpha\beta$ and $\gamma\delta$ T cells. Experience in molecular biology, biochemistry, and/or immunology desirable. Starting date negotiable. Send curriculum vitae to: Dr. A. Augustin, Division of Basic Immunology, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206.

POSTDOCTORAL POSITIONS open in the areas of basic research, analytical chemistry, and pharmaceutical development. Candidates with Ph.D. degree with training in analytical, lipid or biochemistry, biophysics, pharmacology, pharmacy desired. Candidates with M.D. degree interested in laboratory work related to drug development may also apply. Send curriculum vitae/ résumé to: Human Resources, DepoTech Corporation, 11025 North Torrey Pines Road, Suite 100, La Jolla, CA 92037.



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At **CytoTherapeutics**, we're meeting a critical need for innovative solutions to untreatable diseases—the transplantation of cells for the delivery of therapeutic substances and gene therapy products. Our proprietary encapsulation technology, CRIB™, promises landmark therapeutic value. With our initial products focused on treating central nervous system diseases and other chronic disorders, we're expanding the momentum of our technology development.

▶ ... IMMUNOLOGIST-INTERFACE BIOLOGIST

In this key Senior Scientist position, you will explore the immune system and local tissue environment as they interact with our encapsulation technology. The area of reaction to transplanted cells inside an immunosolatory barrier requires novel insights into tissue reactions, cytokine production and transplantation. Requires: 5-10 years' postdoctoral experience, with a balance of industrial and academic experience, a background in modern molecular and cytokine immunology or xeno and allogeneic transplantation, and some exposure to implant reaction or immunohistopathology. This immunologist position requires extensive laboratory experience.

As a rapidly expanding biotechnology leader, we offer extensive professional challenge and room for your ideas, along with a competitive compensation and benefits package. Please send your C.V. in confidence to: **Human Resources, CytoTherapeutics, Inc., Two Richmond Square, Providence, RI 02906; FAX (401) 272-3485.**

We are an equal opportunity employer.



CytoTherapeutics

POSITIONS OPEN

POSTDOCTORAL FELLOWS: OPPORTUNISTIC INFECTIONS/HIV

Two openings are available August 1, 1993, for up to three years, to study DNA-dependent enzymes from *Pneumocystis carinii* and HIV integrase as drug targets. A background in molecular biology and the enzymology of DNA-dependent enzymes is required. Send curriculum vitae and the names of three references to: **Dr. C. Dykstra, Department of Pathology, School of Medicine, University of North Carolina at Chapel Hill, CB# 7525, 811 Brinkhous-Bullitt, Chapel Hill, NC 27599. FAX: 919-966-6718. Equal Employment Opportunity Employer, H/M/F/V.**

POSTDOCTORAL FELLOWSHIP

Available immediately to design and synthesize novel peptide-based, biologically active compounds. The laboratory is involved in research designed to bridge the fields of molecular biology and medicinal chemistry. Preference will be given to individuals with a strong background in synthetic organic chemistry and/or medicinal chemistry with experience in computer modeling. Send curriculum vitae to: **Professor John M. Tomich, Director, Kansas State Biotechnology Core Facility, Department of Biochemistry, Kansas State University, 104 Willard Hall, Manhattan, KS 66506. Telephone/FAX: (913) 532-6297. Application Deadline is August 13, 1993. Women and minorities are encouraged to apply. KSU is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FELLOW

**Dalton Cardiovascular Research Center
University of Missouri—Columbia**

Position available immediately to join an active research group studying mechanisms of hypertension. Our laboratory utilizes a multifaceted approach to studying this problem including molecular, cellular, and whole animal techniques. Applicant must have Ph.D., M.D., D.V.M., or equivalent and training in physiology, pharmacology, or a related area. Experience in molecular biology techniques is desirable, but not required. Please send curriculum vitae and names of three references prior to September 1, 1993, to: **Dr. Edward H. Blaine, Dalton Cardiovascular Research Center, Research Park, University of Missouri—Columbia, Columbia, MO 65211. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIPS IN PLANT-INSECT INTERACTIONS

The Interdisciplinary Research Training Program (RTP) on Plant-Insect Interactions at the University of Arizona invites applications for Postdoctoral Fellowships. The RTP is funded by the DOE/NSF/USDA Joint Program on Collaborative Research in Plant Biology. Its goals are to provide effective interdisciplinary training in plant and insect sciences and to develop a better understanding of the complex interactions between plants and insects to serve as a guide for genetic engineering of plants for protection against insects. As well as a stipend, support for research supplies and travel will be available. Fellows will normally be supported for two years, with the second year of funding dependent on progress and the development of active research interactions. Applicants should send an introductory cover letter with statement of research interests, curriculum vitae, and names of three references by August 1, 1993, to: **Plant-Insect Interdisciplinary Program, 404 Forbes Building, University of Arizona, Tucson, AZ 85721. Please note, according to the conditions of the grant, stipend recipients must be citizens, nationals, or permanent residents of the United States. The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are urged to apply.**

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE—Postdoctoral position available immediately to study regulation of transepithelial transport in renal and other epithelial cells by specific protein kinase C isozymes, using a combination of molecular, electrical and biochemical techniques. Should have a strong background in biochemistry or molecular biology. Send curriculum vitae and names of three references to: **Dr. Thomas G. O'Brien, Lankenau Medical Research Center, 100 Lancaster Avenue, Wynnwood, PA 19096.**

SCIENTISTS: MOLECULAR BIOLOGY AND TOXICOLOGY

SOUTHERN CALIFORNIA

Allergan, Inc., a Fortune 500 pharmaceutical company and a global leader in the eye and skin care products industry, invites you to become part of an exciting venture to design retinoid drugs for dermatology, ophthalmology, cardiology and oncology. Unanswered questions concerning toxic and therapeutic mechanisms of retinoid action provide major challenges for the science of drug design. You will be part of a multidisciplinary team of medicinal chemists and biologists. The following opportunities are available in Irvine, California.

MOLECULAR BIOLOGIST

Describe actions of retinoids at a molecular level. Ph.D. in Molecular Biology or related field with demonstrated scientific indepen-

dence and a strong record of basic research accomplishment.

TOXICOLOGIST

Characterize and model systemic effects of retinoids. Ph.D. in Toxicology or related field. We seek an interactive individual who is capable of carrying out original studies in retinoid toxicology.

At Allergan, you'll enjoy a competitive salary and benefits package, plus the opportunity to pursue scientific and professional growth in a dynamic team environment. For immediate consideration, please send your resume to: **Allergan, Inc., Human Resources Dept. JS-RETS-SC, 2525 Dupont Drive, Irvine, CA 92715. Allergan is an Equal Opportunity Employer.**

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ALLERGAN INC.

RESEARCH and DEVELOPMENT OPPORTUNITIES

GENSIA, INC. is a rapidly growing, publicly traded biopharmaceutical company located in San Diego. Our focus is on the discovery, development and commercialization of innovative products, specifically in the cardiovascular and cerebrovascular areas. Our progressive research and development programs have created a demand for several positions including the following:

Pharmacokinetics

Ph.D.-level scientist to develop, validate and perform assays for drugs and metabolites in biological matrices and to determine the pharmacokinetics and metabolic routes of the drugs. The position would also be responsible for analysis of drugs in biological media by HPLC and other laboratory methods and would interact with department members in the areas of Drug Delivery Development Systems and Drug Metabolism. Code: PK/JF

Central Nervous System:

BS/MS level position for investigations of drug efficacy in *in vivo* models of cerebrovascular diseases. Code: CN/LM

CV Pharmacology:

Ph.D.-level, hands-on supervisory position to design and conduct experiments in the evaluation of cardioprotective drug candidates *in vivo* models of cardiac disease.

Chemistry/Biochemistry:

Ph.D. and MS-level positions, including Associate Director, to support our research efforts in Biochemistry, Process, Analytical, and Medicinal Chemistry. Code: CB/ME

Drug Delivery Systems Development:

Ph.D.-level positions of Associate Director, Research Scientist, and Sr. Formulation Chemist; and BS/MS level position of Data Analyst to focus departmentally on the development of proprietary drug formulations and novel drug delivery systems and devices. Code: DD/YJ

Clinical Research

M.D., Ph.D., RN and BS/MS level opportunities are available, including Associate Director and Clinical Research Associates, for support in the efforts of our Clinical Trials and Marketing Programs. Code: CR/DG

Gensia, Inc., offers competitive salaries and a comprehensive benefits program with stock options. We invite qualified candidates who possess a strong interest in bringing in new technology, good communication skills, and team orientation to submit a resume to: **Gensia, Inc., Human Resources, Code ___; 11025 Roselle St., San Diego, CA 92121-1204. We are proud to offer equal employment and a culturally diverse work environment to everyone.**



GENSIA.
PHARMACEUTICALS, INC.

DIRECTOR Biomedical Research Centre

The University of British Columbia invites applications for the position of Director of the Biomedical Research Centre. The mission of the Centre, opened in 1988, is to provide an internationally recognized centre of excellence for the study of immunology and cancer. The Centre is housed in an attractive new building with excellent research facilities. Currently there are seven faculty members who enjoy a high level of research funding; further expansion is anticipated. An active graduate program draws students from a number of basic science and clinical departments. In addition to his position in the Centre, the Director will hold a professorship in an appropriate University department.

Applicants should have an outstanding research record, an active, well supported research program, a commitment to interdisciplinary research, demonstrated scientific leadership skills and a willingness to actively develop sources of external funding.

Salary will be commensurate with qualifications and experience, subject to budgetary approval. The starting date is negotiable. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of British Columbia welcomes all qualified applicants, especially women, aboriginal people, visible minorities and persons with disabilities.

A curriculum vitae, the names of three referees and a short summary of research interests should be sent by **September 15, 1993** to:



Dean Barry C. McBride
Faculty of Science
The University of British Columbia
#1505 - 6270 University Boulevard
Vancouver, B.C. CANADA V6T 1Z4

SUCCESS BEGINS WITH TOTAL INVOLVEMENT

STAFF SCIENTIST

Boehringer Ingelheim Pharmaceuticals, Inc., a dynamic and growing force in the pharmaceutical industry, seeks a Staff Scientist to participate in research projects in its x-ray crystallography laboratory. For the success-oriented team player, this position offers a research-intensive environment with a RAXIS imaging plate detector on a Rigaku RU200 and excellent computing support (ESV, VAXstation 4000-90 and several SGI Indigo workstations).

The preferred candidate will offer a B.S. or M.S. in Biochemistry or related field with strong experience in the isolation and purification of proteins. Experience with protein crystallization and crystallographic technique is desirable.

Boehringer Ingelheim is located on a campus-like setting in a beautiful area of Western Connecticut. Boehringer offers a competitive salary and benefits package including relocation assistance for qualified candidates. To apply, send resume and salary history to: Department MH-XRC, Boehringer Ingelheim Pharmaceuticals, Inc., 900 Ridgebury Road, Ridgefield, CT 06877-0368. An equal opportunity employer m/f/d/v. As a progressive health care company, we have a non-smoking environment.



**Boehringer
Ingelheim**

Applied Biosystems, the leading producer of automated instrument/reagent systems for biotechnology, has an opening for a:

SCIENTIST

The ideal candidate will define and develop DNA probe-based products that use state-of-the-art PCR and fluorescent technologies. Your responsibilities will include designing and developing methods for automated synthesis and purification of fluorophore-labeled DNA probes, developing methods to characterize these probes, and working closely with team members to develop PCR-based kits and instrumentation that use these probes.

Requires a PhD in Chemistry or Biochemistry with at least 2 years' experience in product development, nucleic acid and organic chemistries, and HPLC assay development.

We offer a competitive salary and generous benefits package. Please send your resume to: Applied Biosystems, Human Resources, Ref.#2178-SC, 850 Lincoln Centre Drive, Foster City, CA 94404. We are an equal opportunity employer.



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POSTDOCTORAL POSITIONS AVAILABLE IN MOLECULAR BIOLOGY

Two postdoctoral positions are available in a 50 member multi-disciplinary research environment to study the molecular mechanisms of skin repair in the Department of Dermatology, University of Michigan. It is anticipated that demonstrated excellence in job performance will lead to long-term employment.

Applicants should possess a Ph.D. with expertise in molecular biology, especially quantitative polymerase chain reaction and *in situ* hybridization. Selected applicants will be expected to conduct primary and collaborative research projects in a variety of areas, including:

- Retinoic acid-receptor mediated gene regulation
- Expression of nuclear receptor super family members
- Molecular basis of skin irritation
- Molecular mechanisms of photodamage
- Regulation of matrix synthesis and degradation

Send curriculum vitae to: John J. Voorhees, M.D., Professor and Chair, Department of Dermatology, University of Michigan, 1301 E. Catherine, Kresge I, R6558, Ann Arbor, MI 48109-0528.

The University of Michigan is a non-discriminatory Affirmative Action employer

Myco Pharmaceuticals Inc., an emerging leader in application of fungal molecular biology and genetics to discovery of anti-infective drugs and drug sourcing, continues its growth. We seek two scientists with expertise in fermentation technology.

Scientist/Senior Scientist - The successful candidate will have a Ph.D. in microbiology or related discipline and 3 or more years of industrial experience in natural products drug discovery and will assume a leadership position in our fermentation biology program. Duties include further design of programs to ferment microorganisms, particularly fungi, for large scale screening; medium scale fermentations for chemical characterization studies; fermentation optimization research; and supervision of large scale fermentation processes. The position affords opportunities for hands-on research as well as supervision of support personnel.

Technical Specialist - The successful candidate will have a B.S. or M.S. in microbiology or a related discipline and 2 or more years of industrial experience in fermentation technology. This individual will be responsible for fermentation of organisms for large scale screening and for scale-up and optimization studies.

Both positions require excellent communication skills, a high level of commitment and will involve multidisciplinary interactions with scientists in the Departments of Molecular Biology, Biological Resource Development, Drug Discovery and Chemistry. They provide excellent opportunities for professional career development and advancement.

Send resume, including names of at least three references, to: Human Resources, FT, Myco Pharmaceuticals Inc., Building 300, One Kendall Square, Cambridge, MA 02139. Myco Pharmaceuticals is an equal opportunity/affirmative action employer.

Chief, Pulmonary Branch, Division of Intramural Research

Announcement Number: HL-93-0039

Opening Date: 06/28/93

Closing Date: 07/28/93

(All applications must be post-marked by the closing date)

The National Heart, Lung, and Blood Institute is recruiting a Chief for its Pulmonary Branch in the Division of Intramural Research. The Branch chief will be responsible for planning, overseeing and coordinating research into the pathogenesis and treatment of pulmonary disease and, to this end, has the opportunity to appoint senior and junior investigators, post-doctoral fellows, and technical support staff. The successful applicant must be board certified or board eligible in Pulmonary Disease and have led an internationally recognized program in basic and/or clinical research.

This is a Civil Service position in the Senior Executive Service (SES), with base salary from \$92,900 to \$107,300 per year. Physicians may be eligible for a Physicians Comparability Allowance up to \$20,000 per annum. A recruitment bonus of up to 25 percent of base pay may be available to a nonfederal candidate selected for this position, subject to individual approval. A relocation bonus of up to 25 percent may be available to a permanent Federal employee who must relocate to accept this position, subject to individual approval.

Mandatory managerial/executive qualifications include the ability to demonstrate leadership responsibilities in developing program goals; representing the program to outside groups; directing program planning, execution, evaluation; obtaining and allocating fiscal and material resources; and conducting a fair and equitable employment program.

Please submit an Application for Federal Employment (SF-171), Curriculum Vitae, Bibliography and description of research accomplishments to:

Susan Frieswyk, Personnel Management Specialist
National Institutes of Health
National Heart, Lung, and Blood Institute
Building 31, Room 5A28
9000 Rockville Pike
Bethesda, Maryland 20892
(301) 496-6477



Public Health Service Commissioned Officers wishing to enter SES must follow the above procedures. Officers interested in performing the duties of the position within the Commissioned Corps may submit a resume to above address.

Applications from women, minorities, handicapped and veterans are strongly encouraged.

Additional information may be obtained from: Martha Vaughan, M.D., Chair, Pulmonary Branch Search Committee on (301) 496-4554.

NIH is an Equal Opportunity Employer • U.S. Citizenship is Required

Automation Technology Development

Pioneer Hi-Bred International Inc., a Fortune 500 company and the world's largest development, producer, and marketer of agricultural seeds, has an immediate opening for a Technology Development Manager in the Automation Group in the Data Management Department. Pioneer is an equal opportunity employer providing a competitive salary, excellent benefits and facilities, plus a cooperative work environment.

The successful applicant will be part of an automation team responsible for the development of automation projects to enhance field and lab research activities to support Plant Breeding. Automation projects may range from rapid harvest systems, measurement and instrumentation systems, and automated data acquisition, to image analysis, remote sensing and robotic systems. The manager will be responsible for: identifying, evaluating, and applying innovative automation technologies to meet strategic research needs; transferring technological developments and reducing to practice in a production mode; developing external contacts and research collaboration to further advance automation technologies for Plant Breeding research. Requires Ph.D. in biology, agricultural or biosystems engineering, or closely allied biological/agricultural science. Training desired in bioanalytical testing, instrumentation and measurement systems with emphasis in electronics, instrumentation, and computer technology. Must have demonstrated automation application systems within a research environment.



PIONEER

Send resume to:
Pioneer Hi-Bred International, Inc.
Plant Breeding Division
Dept. of Data Management
Attn: Kristy McKenna
7250 N.W. 62 Ave., P.O. Box 1004
Johnston, IA 50131
e-mail: mckennak@PHIBRED.COM

CELLULAR BIOCHEMIST

SmithKline Beecham Pharmaceuticals has an international reputation for our innovative approach to drug discovery and development. Our success is built on the collaboration of multidisciplinary teams of scientists who share their ideas and expertise. You will practice state-of-the-art methodologies and work on projects that are both challenging and diverse.

As a Senior Investigator in our Department of Cellular Biochemistry, you will establish and direct our dedicated bone histomorphometry laboratory. In addition to providing morphometric data analysis and interpretation of *in vivo* and *in vitro* experiments, you will assist with *in vivo* experimental design and assess the mode of action of diverse agents. You will also develop and refine bone biology *in situ* methodologies.

The qualified candidate will have a Ph.D in Bone Biology, expertise in bone histomorphometry and a minimum of one year of postdoctoral training experience (up to three years is preferred). A background in general *in situ* methodologies is desired, as is experience in osteoblast differentiation and function.

Based in our modern, state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham provides you with the opportunity to work in an environment where advancement is based on performance. In addition, we offer a competitive compensation that is industry-adjusted annually, an excellent relocation package and a flexible benefits package. For confidential consideration, please submit your resume and the names of three references to: SmithKline Beecham Pharmaceuticals, Employment Administrator, #H052, PO Box 1539, King of Prussia, PA 19046-0939. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

RESEARCH INVESTIGATORS Seattle, WA

The Bristol-Myers Squibb Pharmaceutical Research Institute in Seattle performs research dedicated to pursuing novel approaches to the development of therapeutic products in the areas of immunology, infectious diseases and cancer.

BIOLOGICAL PROCESS RESEARCH

The successful candidate will lead and participate in activities aimed at the optimization of expression and production of recombinant proteins in culture processes. In this position, you will initiate and evaluate research into novel production technologies and work effectively with groups in various other parts of the corporation responsible for process research, process development and pre-clinical research. Candidates should have a Ph.D. in Biochemistry, Microbiology, Cell Biology, or Biochemical Engineering and 5+ years of industrial experience. A background in process research/development as part of a team is a strong plus. **REF. 93-0303.**

AUTOIMMUNITY

Participate in structure and function studies of B7, CD28 and CTLA4. Elucidate CD28 specific signaling pathways and develop transgenic models to elucidate CD28 structure and function. Candidates must have a Ph.D. in Molecular Biology, Immunology or Cell Biology with a minimum of three years postdoctoral experience. **REF. 93-0304.**

We offer a creative research environment, competitive salaries, an excellent benefit package and relocation assistance. Our facility offers open and well-equipped laboratories overlooking beautiful Puget Sound and the Olympic Mountains from our downtown site. Please forward your resume to: **Bristol-Myers Squibb, Human Resources Dept., 3005 First Avenue, Seattle, WA 98121.** Please note the position reference code. Equal Opportunity Employer, M/F/D/V.



Bristol-Myers Squibb Company

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS available in October 1993 and January 1994 to study mechanisms of signal transduction across cell membranes. The work will focus on the structure, function and cellular regulation of G proteins. Experience in protein chemistry and/or molecular biology is essential. Send curriculum vitae and names of three references to: **Dr. Eva J. Neer, Harvard Medical School, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. Equal Opportunity/Affirmative Action Employer.**

GENOME RESEARCH—POSTDOCTORAL ASSOCIATE position is available immediately in genome program at Argonne National Laboratory to map and sequence human expressed and genomic DNA. Research projects concern studies on preparation and testing of libraries and development of sequencing by hybridization technology. The position would suit those with previous experience in genomics as well as those with some exposure to cloning and sequencing at gene level who have interest in DNA sequence organization. Studies from this laboratory include *PNAS* 88: 10089-10093 (1991) and *Science* 260: 1649 (1993). Please send curriculum vitae and three letters of recommendation to: **Susan M. Walker, Employment and Placement, Box 91M—POSTDOC-55, Argonne National Laboratory, B7M South Cass Avenue, Argonne, IL 60439. Argonne is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL SCIENTIFIC RESEARCH OPPORTUNITIES IN INDIA

Three- to twelve-month fellowships in India awarded to U.S. citizens in 1993-4. For information, contact: **Jeanine Marie Greene, Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037.**

POSTDOCTORAL RESEARCH OPPORTUNITIES

Join a successful research program in which transgenic technologies and *in vitro* approaches are used to explore the role of tumor suppressor proteins in differentiation and cell growth control and in the study of brain-specific regulation of transcription.

Requires a strong background in molecular biology and commitment to research and offers an excellent research environment in the Research Triangle. Apply with curriculum vitae and three letters of references by August 15, 1993, to: **Dr. Terry Van Dyke, University of North Carolina at Chapel Hill, Program in Molecular Biology & Biotechnology, CB #7100, 101 MBBRL, Chapel Hill, NC 27599-7100.**

The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE positions are available to work on endocrine regulation of human fetal placental unit, reproductive tract and brain. Candidates with working experience in cell culture, nucleic acid and protein blotting techniques, nuclear run on transcription and mRNA stability measurements, PT-PCR, construction of antisense expression vectors, transfections, structural and functional analysis of 5'-flanking region of genes, gel shift and DNase I footprinting analysis, are encouraged to apply. **Dr. C.V. Rao, Department of Ob/Gyn, 438 MDR Building, University of Louisville Medical Center, Louisville, KY 40292; FAX: (502) 588-0881.**

RESEARCH ASSOCIATE MOLECULAR BIOLOGY

Your dedication to benchwork and desire to learn will be rewarded as you work closely with a world-renowned expert in molecular biology-based disease detection. Our team of highly motivated scientists welcome your contribution to the development of DNA-based diagnostics kits.

Your skills in DNA preparation and PCR amplification are required along with a B.S./M.S. or equivalent in the life sciences and two or more years of laboratory experience in molecular biology with experience in clinical applications.

To apply, please send curriculum vitae and salary history to: **Box 35, Science Magazine, 1333 H Street, N.W., Washington, DC 20005.**

POSITIONS OPEN

RESEARCH ASSOCIATE POSITIONS

RESEARCH ASSOCIATE OPPORTUNITIES are periodically available with the **COLLEGE OF BIOLOGICAL SCIENCES** at the **UNIVERSITY OF MINNESOTA**. Positions may be available in the Departments of Biochemistry; Ecology, Evolution and Behavior; Plant Biology; and Genetics and Cell Biology. Positions may also be available in the Bell Museum of Natural History, the Gray Freshwater Biological Institute, the Biological Process Technology Institute, Lake Itasca Forestry and Biological Station, and the Plant Molecular Genetics Institute.

These positions are for independent research. To be considered, applicant must hold a Ph.D. degree or foreign equivalent and at least two years of postdoctoral experience. Applicants are encouraged to secure salary support from an external granting agency. Multiple positions may be available, depending upon space and facilities, availability of funding, as well as faculty research interests.

Applications from interested persons must include personal curriculum vitae, a statement of research interests and experience, names, addresses and telephone numbers of three references, and specification of department/programs of interest.

Closing date for applications to be received is June 30, 1994.

Direct applications material to: **Associate Administrator, College of Biological Sciences, University of Minnesota, 1479 Gortner Avenue #240, St. Paul, MN 55108.**

The University of Minnesota is an Equal Opportunity Educator and Employer.

MOLECULAR BIOLOGIST. The Department of Hematology/Oncology at Brookdale Hospital, SUNY Science Center at Brooklyn, invites application for a Research Scientist position to join the ongoing research in myelofibrosis. The candidate must have a Ph.D. with experience in molecular biology. Excellent salary. Academic faculty appointment available. Please send curriculum vitae and names of three references to: **Jen C. Wang, M.D., Department of Hematology/Oncology, Brookdale Hospital Medical Center, Linden Boulevard at Brookdale Plaza, Brooklyn, NY 11212. Telephone: (718) 240-5807. Equal Opportunity Employer.**

INTERDISCIPLINARY—RESEARCH WILDLIFE ECOLOGIST—UNITED STATES DEPARTMENT OF INTERIOR—Bureau of Land Management, Oregon State Office, Portland, Oregon. Duty Station: Pacific Forest and Basic Rangeland Systems Cooperative Research and Technology Unit, Corvallis, Oregon. Bureau of Land Management is seeking an Interdisciplinary Research Wildlife Ecologist, GS-401/408/486-13/14 (\$47,920 to \$73,619 per annum) for a four-year TERM appointment. Incumbent will serve as Project Leader of the Wildlife Ecology Research Program in the Cooperative Unit and be a member of the Graduate Faculty at Oregon State University. Contact: **Bureau of Land Management, Oregon State Office, Attention: Dianna L. Alfstad, at 503-280-7252, for a copy of the announcement and necessary paperwork. R13-93-21—Opens: June 10, 1993. Closes: July 30, 1993.**

An Equal Opportunity/Affirmative Action Employer.

TOXICOLOGY: IIT Research Institute, a leading R&D organization based in Chicago, has an opening in its well-equipped inhalation toxicology laboratory for a **RESEARCH TOXICOLOGIST.** The chosen candidate will assume responsibilities as study director for acute, subchronic and chronic inhalation toxicology/carcinogenicity studies.

Responsibilities will include participation in design, supervision and conduct of experiments, preparation of protocols and SOP's, scheduling of studies, interpretation and evaluation of results, and preparation of reports.

Candidates should have a Ph.D. in toxicology, pharmacology or related discipline and 2 to 5 years of postdoctoral experience in toxicology. Preference will be given to candidates having experience in inhalation toxicology. Demonstrated technical writing skills a must. Knowledge of GLP regulations and various testing guidelines is desirable. ABT certification is preferred.

The position offers excellent opportunity for collaborative work with staff members involved in other areas of Life Sciences research. Salary commensurate with qualifications and experience. Please submit résumé including salary history to: **Ms. Lucy Amft, Senior Personnel Representative, IIT RESEARCH INSTITUTE, 10 West 35th Street, Chicago, IL 60616. Equal Opportunity/Affirmative Action Employer, M/F/D/V.**

FACULTY POSITIONS

CHEYNEY UNIVERSITY of PENNSYLVANIA

Founded in 1837, Cheyney University, the oldest historically Black institution of higher learning, is located 18 miles southwest of Philadelphia. Cheyney is now inviting applications for the following faculty positions:

- **Physics** - with competence to teach physics I and II for majors and physical sciences for non-majors.*
- **Organic Chemist** - to teach organic chemistry I and II and biochemistry for majors, and physical sciences for non-majors.*
- **Molecular-Biologist** - to teach molecular biology, cell physiology, immunology for majors, and biology courses for majors and non-majors.*
- **Developmental Biologist** - to teach histology, cytology, embryology for majors, and freshman biology courses for majors and non-majors.*

**Competencies needed for the above full time positions: Ph.D. in required area; at least 3 years of teaching experience; grant writing and/or involvement with undergraduate students in small research projects.*

Cheyney offers competitive salaries and a complete benefits package. Screening for positions will begin on July 19, 1993, however, a review of applications will continue until each position is filled.

Send a letter of application, (including the position applying for), resume, transcripts along with the names and addresses of 3 professional references to:

**Human Resources/SC, (Position applying for)
CHEYNEY UNIVERSITY
Cheyney, PA 19319**

Cheyney University is an AA/EEO employer

PIONEERING A NEW CLASS OF HUMAN THERAPEUTICS

At Gilead Sciences, we are pioneering a new class of human therapeutic compounds based on nucleotides—the molecular building blocks of DNA and RNA. Nucleotide compounds can be modified to act inside or outside the cell to selectively inhibit the production or activity of disease-causing proteins. Come join our scientific team as we develop disease-fighting drugs that target viral infections, cardiovascular disease, inflammation and cancer.

RESEARCH SCIENTIST

In Vivo Drug Delivery & Metabolism

You will conduct research in the drug delivery and metabolism of nucleotide-based therapeutics to aid in the selection of drug molecules for development. This will involve the design and application of in vivo models to support pre-clinical absorption, distribution metabolism and excretion studies, using novel drug molecules. You will also apply bioanalytical methods to support in vitro and in vivo assessment of transport and degradation of novel drug molecules. A Ph.D. in Pharmaceutical Sciences or Biochemistry along with 2-4 years' pharmaceutical development experience is required. Familiarity with GLPs and experience in microsurgery, pharmacokinetic modeling, and metabolite isolation and identification are also desired.

As an emerging force in the biotechnology industry, Gilead provides a comprehensive compensation and benefits package, which reflects our leadership and commitment to our science. To learn more, please send your CV to: Human Resources, Gilead Sciences, 353 Lakeside Drive, Foster City, CA 94404. We are proud to be an equal opportunity employer.

GILEAD
SCIENCES

Research Fellow/ Sr. Research Assistant

The Lindsley F. Kimball Research Institute, a division of the New York Blood Center, has a challenging opportunity available for a **Ph.D. Research Fellow or MS degreed Sr. Research Assistant** in Biochemistry or Molecular Biology.

Working under the supervision of the laboratory head in our Cell Biochemistry Lab, you should have experience and publication record demonstrating innovative and independent research accomplishments. Experience in techniques of enzymology (enzyme purification and characterization, kinetic studies, protein chemistry) and Molecular Biology required. (DNA library construction) cloning, screening and mutagenesis necessary.

We offer a competitive salary and a comprehensive benefit package. Send CV to: **Manager of Human Resources/LFK, The New York Blood Center, 150 Amsterdam Ave, New York, NY 10023.** Equal opportunity employer m/f/d/v.

Lindsley F. Kimball
Research Institute

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51,306	Nature**

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For more information, contact:
Janis Crowley, 212-496-7704 (U.S.);
in Europe, contact Annemarie Vis, +44 223 302 067

* December 1992 ABC Publisher's Statement

** December 1992 BPA Publisher's Statement

Research Scientists - 3 Positions Bioeconomics; Resource Dynamics; Marine Biophysical Modelling

\$A42 - \$A57K + Superannuation

Division of Fisheries and Oceanography, Hobart, Tasmania, Australia

Reference Number FC93/13, FC93/14 and FC93/15

We are seeking three experienced and innovative scientists to join an interdisciplinary research program on Management of Marine Living Resources, spanning the Divisions of Fisheries and Oceanography. The Program aims to quantify and model the effects of man-induced and natural impacts on fisheries and the environment which supports them, and to integrate ecological, economic and environmental issues in managing Australia's marine living resources. The Program will develop a framework for the design and evaluation of strategies for managing marine living resources; develop methods to deal with uncertainty and risk in renewable resource assessment; develop techniques for integrating ecological and economic processes in resource modelling; and develop models which link spatial and temporal dynamics of oceanographic and ecological processes.

You will need a PhD or equivalent experience in one or more of economics, quantitative ecology, and physical oceanography; a strong background in mathematics and statistics; advanced skills in computer modelling for bioeconomic, renewable resource, and/or marine biophysical systems; and a demonstrated interest in interdisciplinary research.

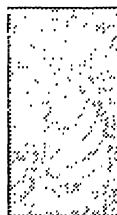
You should have a superior record of innovative research achievements, the capacity to work both independently and as part of a team, and the capacity to communicate research findings to a wide variety of audiences.

The Program Coordinator, Dr Tony Smith, can provide more information on the three positions and career opportunities (telephone (61+02) 32 5222, fax (61+02) 32 5000). The positions are indefinite (tenured) and assistance with relocation costs is provided.

Mrs Toni Cracknell telephone (61+02) 32 5383 can provide detailed job descriptions and selection criteria.

Please send applications addressing the selection criteria and including details of your qualifications and experience and the names of two referees, quoting the appropriate Reference Number to: **The Human Resources Manager, CSIRO Division of Fisheries, GPO Box 1538, Hobart, Tasmania 7001, Australia** by 23 July 1993.

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**SCHOOL OF
CHEMICAL SCIENCES**

**UEA
NORWICH**

LECTURESHIP IN PROTEIN CRYSTALLOGRAPHY

Applications are invited from persons interested in establishing protein crystallography within the School of Chemical Sciences. The Wellcome Trust has indicated its willingness to consider an application under its University Award Scheme to provide a starting salary and associated research costs of this post. It is hoped that, with funding from the Wellcome Trust, equipment will be available suitable for protein structure solution and for the work of Dr. A.K. Powell on the synthesis and structure determination of poly-iron and poly-aluminium oxyhydroxide clusters of biological relevance. Applicants should preferably have interests in the area of metalloproteins and may wish to interact with faculty members of the UEA Metallology Centre drawn from the Schools of Biological and Chemical Sciences.

Interested persons should write, as soon as possible, for further information to Professor A.J. Thomson, F.R.S., School of Chemical Sciences, University of East Anglia, Norwich NR4 7TJ Tel: (0603) 592023 or FAX (0603) 259396.

Applications (three copies), stating the reference number **CHE 93/06** and including a full curriculum vitae which outline your research interests and gives your exact date of birth, together with the names of three persons to whom reference may immediately be made, should be lodged with the Administrative Secretary, University of East Anglia, Norwich, NR4 7TJ by no later than **21 July 1993**. Overseas candidates may FAX applications to (44) 603 58553. Further particulars may be obtained by telephoning (0603) 582734 and quoting reference number **CHE 93/06**. No forms of application are issued.

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University of Copenhagen

Professorship in Cell Physiology



Applications are invited for a Professorship in Cell Physiology at the August Krogh Institute at the Faculty of Natural Sciences, Copenhagen University, to commence as soon as possible.

The faculty wishes to appoint an applicant with a high international research reputation within the fields of transport of solutes across membranes of animal cells and/or the function of membrane receptors and signal molecules as transducers of signals from the environment during regulation of homeostatic mechanisms of the cell.

The professor will participate in developing research in cell physiology with regard to establishing projects for graduate students in biology and biochemistry, and will participate in the Department's teaching on all levels. The language of instruction is Danish, but English will be accepted for the first two years of appointment.

Further information about the position, research planning, facilities, and staff can be obtained from the Director of the August Krogh Institute (13 Universitetsparken, DH-2100, Copenhagen 0, Denmark).

Employment will be in a civil service position, grade 37, for which the present basic annual salary is 369.033 Danish kroner with a possible, negotiable addition.

Application, including curriculum vitae, list of publications, and documentation for teaching experience and other professional activities should be addressed to the Queen of Denmark, and sent to the Faculty of Natural Sciences, Panum Institute, Blegdamsvej 3, DK-2200 Copenhagen N, Denmark.

5 copies of the application with enclosures together with 5 copies of papers that the applicant wants to serve as a basis for consideration should be sent to the August Krogh Institute, Universitetsparken 13, DK-2100 Copenhagen 0, Denmark.

Closing date for applications: the 27th of August 1993



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SENIOR SCIENTIFIC OFFICER

CENTRE FOR IMMUNOLOGY

Following the success of the Concert for Life, which raised funds for the research of HIV/AIDS, we wish to employ a virologist at the Centre for Immunology, St Vincent's Hospital, Sydney. The hospital is a 500 bed teaching hospital of the University of New South Wales which provides the largest Level 6 service for persons with HIV/AIDS in Australia. The Centre for Immunology houses HIV laboratories devoted to both diagnosis and research. Research interests include the biological characterisation of HIV isolates at varying stages of HIV disease, and their relationships to clinical disease and antiretroviral therapy in the setting of clinical trials. Other interests include HIV-related neurological disease and vaccine trials. The Centre for Immunology also has a wide range of other research commitments. You must have a PhD in virology and at least 5 years related post-doctoral experience, at least some related to the virology of HIV. Experience in molecular biology is highly desirable. You would also be encouraged to develop a new area of expertise in the field. The appointment would initially be for a two year period, with excellent prospects of ongoing funding. Salary would be as per the relevant award, up to A\$52,152 per annum, according to experience and qualifications.

For further information contact Dr Andrew Carr on (61 2) 361 7700.

Written applications for this position detailing experience, qualifications and names of three referees should be forwarded to Natanya Bloom, Human Resources Department, St Vincent's Hospital, Victoria St, Darlinghurst NSW 2010, Australia, by Friday 23 July, 1993.



THE UNIVERSITY OF GRONINGEN THE NETHERLANDS

invites applicants for the position of

Professor of Polymer Synthesis

(vacancy number: 930701)

in the Laboratory of Polymer Chemistry.

We are seeking an outstanding individual who will establish an innovative research program in the synthesis, catalysis, polymerization mechanisms and characterization techniques of new polymer materials.

The position is part of the Polymer Chemistry Laboratory where research groups are actively involved in the synthesis, characterization and theory of special polymer materials for electronic, photonic, biomedical and mechanical applications. The Polymer Chemistry Laboratory is part of the Materials Science Center with expertise and modern facilities for state of the art characterization and properties research.

The successful candidate should be internationally recognized and have a strong publication record and proven ability to attract external financial support.

He/She should be able to initiate novel approaches in fundamental and applied research and have experience in teaching undergraduate and advanced graduate courses in the polymer synthesis and polymer characterization.

The gross salary depends on qualifications and ranges from Dfl. 7.713,- to Dfl. 13.722,- per month.

Applications with curriculum vitae, list of publications, photocopies of relevant certificates, outline of research interest, and names of three persons from whom references can be obtained, should be sent within one month to the University of Groningen, Personnel Department, P.O. Box 72, 9700 AB Groningen, The Netherlands, with reference to vacancy number 930701.

Further information can be obtained from the chairman of the Search Committee, Prof. Dr. G. Hadzioannou, Polymer Chemistry Department, phone (+31) 50 634510/634300 / Bitnet HADZII@HGRRUG5.

Those who wish to nominate a possible candidate are also invited to respond.

UNIVERSITY COLLEGE DUBLIN

Applications are invited by the Governing Body of the College for the following full-time statutory post:

PROFESSORSHIP OF BIOCHEMISTRY (Ref: 72/93)

University College Dublin invites applications for the Chair of Biochemistry and the Headship of the Department of Biochemistry. This tenured post falls vacant on 1 October 1993.

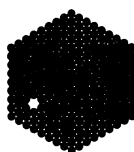
The University seeks an outstanding scientist, with an internationally recognised research programme, an excellent record of scientific publication, a commitment to undergraduate and postgraduate teaching, and proven organisational and management skills. The appointment is envisaged as a key one in the further development of the Life Sciences on the University College Dublin campus.

The Department of Biochemistry is engaged in teaching and research activities in both the Faculty of Science and Faculty of Medicine. The current research interests in the Department include membrane biochemistry, molecular enzymology, protein structure and function, molecular genetics and environmental biochemistry.

Prior to application, further information (including application procedure) may be obtained from the Personnel Office, University College Dublin, Belfield, Dublin 4, Ireland (quoting above reference number). Telephone enquiries: (+353-1) 7061412 or (+353-1) 7061508 - direct lines. FAX: (+353-1) 2692472.

The closing date for receipt of completed applications is : Monday, 27 September 1993.

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EMBL

The European Molecular Biology Laboratory, an international research organization situated in Heidelberg, Germany has vacancies for

PROTEIN CRYSTALLOGRAPHERS

Positions are available for protein crystallographers at staff scientist or group leader level at the **Grenoble Outstation**. The EMBL Outstation in Grenoble, France, is a laboratory of structural molecular biology sharing a site with the Institut Laue-Langevin (ILL), a leading international centre for neutron scattering, and the European Synchrotron Radiation Facility (ESRF), a high brilliance synchrotron source currently in its commissioning phase. The Outstation has an active internal research programme focused on structure-function relationships in proteins and nucleic acids, in particular on aminoacyl-tRNA synthetases, other RNA-binding proteins and viral proteins. The laboratory is well-equipped for molecular biology, biochemistry, protein crystallography, computing and electron microscopy. In addition the Outstation is closely collaborating with the ESRF to provide beamlines and support laboratories for biologists wishing to make use of the ESRF. Successful candidates will be expected to play an active role in the service aspects of the laboratory (e.g. assistance to visitors or development of synchrotron methods) as well as pursue their scientific interests. Candidates with experience or an interest in applications of intense synchrotron radiation to protein crystallography are particularly encouraged to apply. An initial contract of 3 years, renewable up to nine years, with an attractive salary will be offered.

For further information and to apply please write, enclosing a CV and description of research experience and interests to Dr. Stephen Cusack, EMBL, c/o ILL 156X, 38042 Grenoble, FRANCE. Tel: 76-20-72-38. Telefax: 76-20-71-99. Email: cusack@embl.embl-grenoble.fr.

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Division of Water Resources, Canberra ACT, Australia

This Division undertakes applied and strategic research into water resources, quality, and aquatic ecosystems and their management in Australia.

One of the key issues facing the managers of Australia's water resources is the impact on water quality of effluent disposal and land use in large catchments. The Division has established a research program to provide the necessary tools for managers of large catchments to predict these impacts. Emphasis is being given to hybrid models of hydrologic processes, in which spatially explicit and implicit models are used together. In addition, the Division has considerable strength in tracing the movement of water, sediments and nutrients using stable and unstable isotopic and other geochemical tracers. It is planned to combine the tracer research and model development to provide several ways of predicting large catchment behaviour.

We are looking for an innovative hydrologist who will make a major contribution to this research. This person must have a PhD, demonstrated experience in (or at least interest in) modelling using flexible strategies across a range of skills, very strong programming and computational skills, and the ability to work collaboratively within small groups.

Before sending an application, please seek further information and/or the selection criteria etc from Dr Jetse Kalma (phone 61 6 246 5747; fax 61 6 246 5800; e-mail jdk@styx.cbr.dwr.csiro.au)/ Dr Bob Wasson (phone 61 6 246 5778; fax 61 6 246 5800). Duty statements and selection criteria can be obtained from Mrs Carol Clyde (phone 61 6 246 5761; fax 61 6 246 5800; e-mail cly006@styx.cbr.dwr.csiro.au)



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ANNOUNCEMENT

Renal Division

The Extramural Grant Program

Baxter's Renal Division announces 13 new Extramural Grant Program (EGP) recipients. The ninth-round winners were announced by the EGP's independent Medical Advisory Board (MAB) at the 1993 Annual Scientific Meeting held in Chicago, Illinois, May 12-13. The MAB reviewed 78 proposals and selected winners based solely on the scientific merit of the proposed research. The ninth-round Request for Proposals (RFP) topics were: 1) The Role of Lipids in Renal Disease and 2) Peritoneal Dialysis in the Pediatric Patient.

Ninth-Round Grant Winners

Guohua Ding, M.D., Ph.D. - Hershey, Pennsylvania
"A Cholesterol-TGF- β Axis and Progressive Renal Injury"

Allison Audrey Eddy, M.D.-Toronto, Canada
"Oxidized Low Density Lipoproteins in Interstitial Fibrosis"

Bengt Fellstrom, M.D., Ph.D. - Uppsala, Sweden
"Importance of Lipoprotein Abnormalities and Reactive Oxidative Species in the Development of Chronic Graft Dysfunction in Transplanted Organs"

Rosanna Gusmano, M.D. - Genoa, Italy
"Effects of Combined Intraperitoneal Infusion of Glucose and Amino Acid Solutions in Malnourished Children on CCPD"

Bertram L. Kasiske, M.D. - Minneapolis, Minnesota
"The Role of Protein Isoprenylation in Chronic Rejection"

Youngki Kim, M.D. - Minneapolis, Minnesota
"Effects of Normal and Modified Lipoproteins on Extracellular Matrix Metabolism of Human Mesangial Cells"

Michael Kirschenbaum, M.D. - Long Beach, California
"Role of Uremia and Dialysis on Hepatic Lipoprotein Synthesis"

Ngoc-Anh Le, Ph.D. and Bradley Maroni, M.D. - Atlanta, Georgia
"Pathogenesis of Post-Transplant Hyperlipidemia"

Victoria S. Lim, M.D. - Iowa City, Iowa
"Protein Metabolism in Chronic Renal Failure Patients"

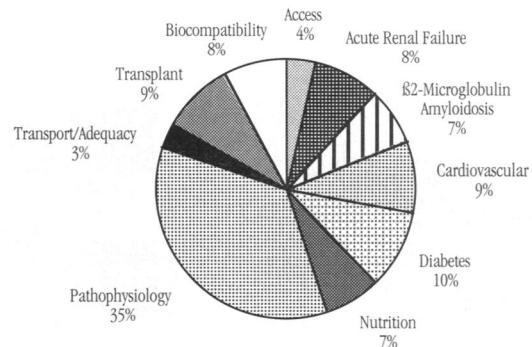
William F. Owen, Jr., M.D. - Boston, Massachusetts
"Estrogen Replacement Therapy for Cardiovascular Risk in ESRD"

Paul G. Schmitz, M.D. - St. Louis, Missouri
"Fatty Acid Modulation of Glomerular Pathophysiology"

Allan D. Sniderman, M.D. - Montreal, Canada
"Effect of Amino Acids on Hepatic Secretion of APOB and Lp(a)"

Stuart M. Sprague, D.O. - Chicago, Illinois
"Effect of β -2-Microglobulin on Bone Cell Metabolism"

The Extramural Grant Program (EGP) is a unique corporate research program designed to stimulate innovative science in the field of renal disease, its pathophysiology and treatment options. Modeled after the National Institutes of Health (NIH) grant program, the EGP has two funding rounds per year. A total of \$1 million in new grants are awarded each year. Since 1989, nine grant rounds have been completed with more than \$9 million awarded to 116 scientists representing 13 countries. Funded research encompasses both basic science (63%) and applied clinical studies (37%). A breakdown of the research is highlighted in the graph below.



Upcoming RFP Topics

Deadline: November 5, 1993 (tenth round)

- 1) Quality of Life on Dialysis
- 2) Open (all research relevant to the study of renal disease)

Deadline: April 8, 1994 (eleventh round)

- 1) Safe Strategies for Shortening Treatment Time for ESRD
- 2) The Importance of Gender in Modality Selection and Prescription Adequacy.

For more information contact
Lee W. Henderson, M.D., F.A.C.P.

Baxter Healthcare Corporation, Renal Division,
The Extramural Grant Program
1620 Waukegan Road, McGaw Park, IL 60085
ph: (708) 473-6137 or fax: (708) 473-6923

Renal Division

Baxter

POSITIONS OPEN

ENGINEER. Test. Characterize MR head and media recording performance and correlate results with processes; set up test equipment for MR head and media characterization; automate testing through computer control. Ph.D. in Material Science plus knowledge of recording theory for digital data storage, theoretical and experimental spectrum analysis of recording noise, magnetism, C, thin film deposition process, thin film microstructure. \$4830 per month. Job site/interview: Milpitas, California. Send ad with résumé to **Job #LW20142**, P.O. Box 269065, Sacramento, CA 95826-9065.

COASTAL ECOLOGIST position available at Texas Parks and Wildlife Department, Austin, Texas. Natural resource agency seeks M.Sc. or Ph.D. biologist with training and research experience in estuarine benthic ecology, nutrient dynamics or microbial ecology. Will conduct statistical/spatial analysis or simulation modeling of ecological data for studies evaluating environmental impacts on Texas estuarine ecosystems. Annual salary \$40,656. Contact: **Dr. Warren Pulich, Jr.**, (Telephone: 512-448-4314) for application information. Closing date for applications: August 16, 1993. *An Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL SPECIALIST IV (43010370)

Palatka, Florida. \$33,000 to \$49,500. This is a senior research position for an environmental toxicologist. Duties include: the development and management of a toxic substances survey for a large estuarine ecosystem and the development of remediation plans. Should have experience in sampling and analyzing sediments and tissues for the presence of toxic substances, knowledge of environmental health effects of various pollutants, and knowledge of remediation techniques. Qualifications include: a Bachelor's degree from an accredited college in toxicology, biology, estuarine ecology or related field and five years of experience in environmental toxicology. Send résumé with source of ad to: **St. Johns River Water Management District, Office of Human Resources (JMB)**, P.O. Box 1429, Palatka, FL 32178-1429. Apply by July 23, 1993.

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Position: **RESEARCH SCIENTIST.** Design and perform experiments to study protein and carbohydrate metabolism using isotopic tracers with normal subjects or subjects with burn injuries and surgery. Perform mass spectrometry analysis of isotopic enrichment using GC and IRMS. Isolate individual amino acids by HPLC and combust samples on vacuum lines for analysis of isotopic enrichment. Prepare chemical derivatives of compounds in blood. Generate new methods for analysis of metabolites. Write papers for publication and grant proposals. Salary \$2,624 per month. Minimum education: 6 years of college, M.S. in Medical Science; Studies: metabolism in burned subjects; Experience: 2 years of nutrition and metabolism burns research in clinical environs. Apply at: **Texas Employment Commission, Galveston, Texas, J.O. #6888243** or send résumé to: **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O.#.** Ad Paid by an *Equal Employment Opportunity Employer.*

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Primary duties will include evaluation and recommendation of company policy; selecting contract laboratories; placement and evaluation of ongoing studies; preparation of regulatory submittals to EPA and other regulatory agencies worldwide; assist in preparation of MSDS and product safety literature.

Interested persons should submit a résumé with salary history and request in confidence to: **Human Resources Manager, First Chemical Corporation, P.O. Box 1427, Pascagoula, MS 39567.**

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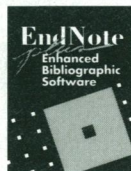
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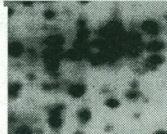
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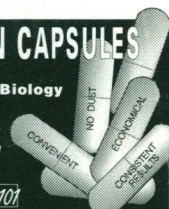
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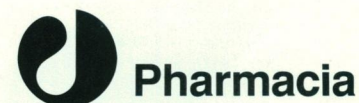
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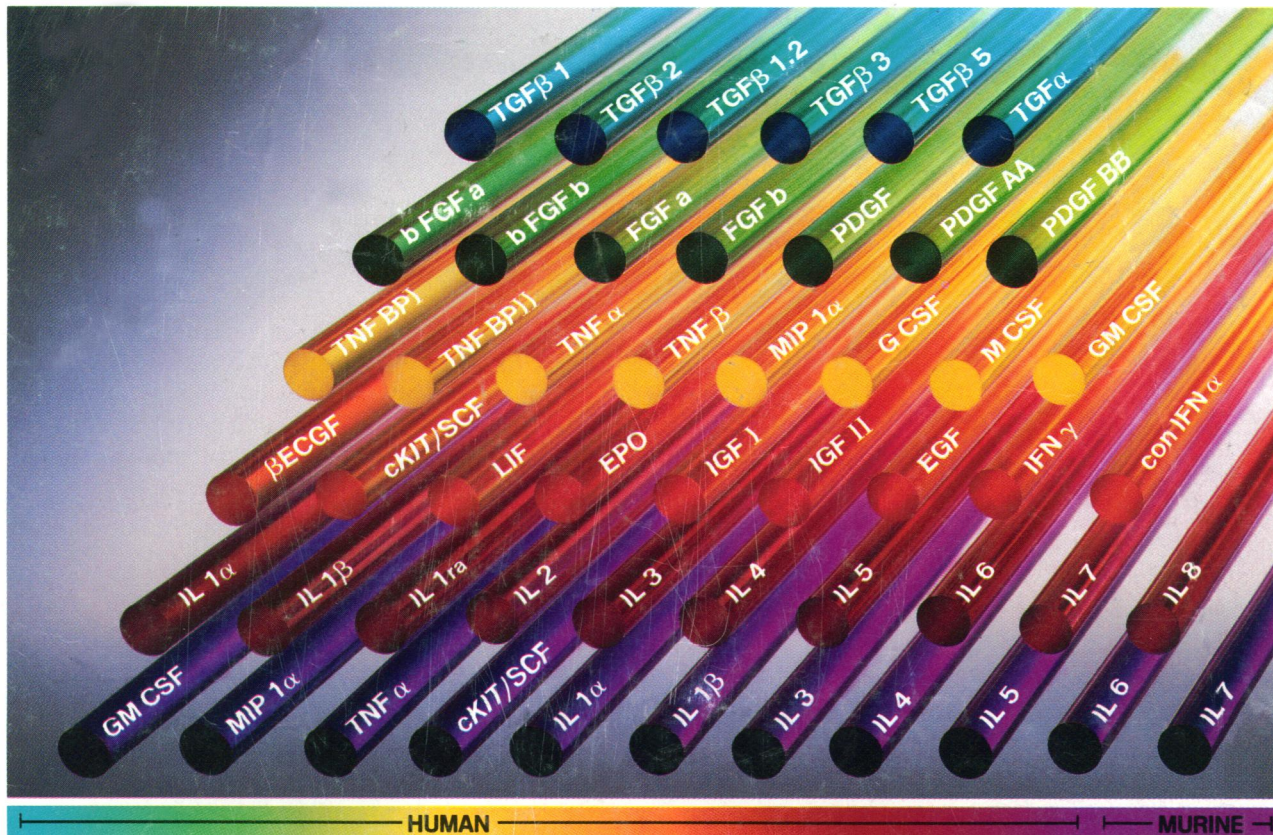
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