

The RNA analysis source

Ambion offers a complete range of kits and reagents for RNA analysis including:

Ribonuclease Protection Assay— Ten Times More Sensitive Than A Northern

For single tube, high sensitivity RPAs use the RPA II™ Kit. And for precious samples the Direct Protect™ Lysate RPA Kit allows probing directly in cell lysates without prior RNA isolation.

S1 Nuclease Protection

The S1 nuclease protection assay is now in convenient kit form. The S1™-Kit provides function tested solutions and controls necessary for analysis and mapping of RNA with DNA probes.

Ambion is the first company to offer **RPA** and **S1 nuclease protection assay** kits.

Novel technology has been incorporated into each kit to bring you **state of the art** speed, efficiency, and ease of use.

Contact us today for information on our full range of products for RNA analysis.

(512) 445-6979 (512) 445-7139 FAX

(800) 888-8804

Ambion

Innovative Products for RNA Analysis

Circle No. 54 on Readers' Service Card

PRODUCTS & MATERIALS

Antibodies

Polyclonal antibodies are available to matrix metalloproteinase 2 (MMP2) and MMP3, which are believed to play an integral role in extracellular matrix degradation, tumor invasion, and metastasis. The antibodies can be used in immunohistochemistry and protein immunoblotting. **Biodesign International**. Circle 135.

Rb (Ab-5), Clone LM95.1 is an antibody that stains formalin-fixed, paraffin-embedded human tissues and immunoblots the Rb tumor suppressor gene protein (p 105). Rb (Ab-6), Clone AF11 reacts with the Rb protein from a wide range of species, including human and *Xenopus*, by immunoblotting. **Oncogene Science**. Circle 136.

The Anti-fluorescein Single-chain Antibody is a smaller sized molecule (approximately 27 kD) with potential applications that include fluorescence polarization and protein engineering studies, basic research of antibody-antigen binding characteristics, the study of tumor antigens, investigations of cell-specific immunotoxins, and a broad range of clinical studies. **PanVera**. Circle 137.

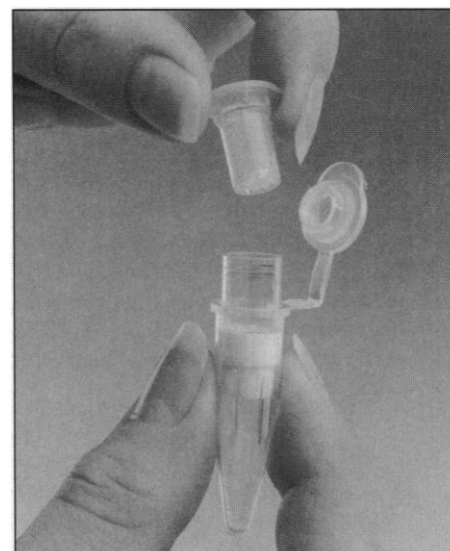
DNA Template Isolation Kit

The MPG DNA Template Isolation Kit provides a simple, reliable means of isolating DNA templates for direct sequencing of polymerase chain reaction fragments. The method is based on streptavidin-coated superparamagnetic porous glass particles that lead to fewer failed sequencing reactions and fewer artifacts in the sequencing gels than other methods, according to the manufacturer. **CPG Inc**. Circle 138.

Enzyme Removal from DNA

Micropure-EZ provides a rapid, phenol-free means to remove restriction and DNA-modifying enzymes from up to 250 µl of reaction mixtures containing double-stranded

DNA (dsDNA). The membrane in this centrifugal device has a high affinity for protein but not for dsDNA. In a single 30-s microcentrifuge spin, enzymes are selectively adsorbed. DNA is recovered in a vial, undiluted



and enzyme free. DNA recovery is typically 90% or higher. It is not affected by DNA size or the binding capacity of the adsorption mixture. **Amicon**. Circle 139.

Acrylic PCR Workstation

The Template-Tamer is an acrylic workstation designed to eliminate contamination of polymerase chain reaction (PCR) experiments. Through the use of ultraviolet (UV) light directed by a unique reflector to the base of the unit, the Template-Tamer dimerizes adjacent pyrimidine molecules in a DNA strand, rendering it unamplifiable to polymerases. Prior to adding the desired DNA template and polymerase, the operator places reaction buffers, pipettes, pipette tips, and other plasticware in the unit for 30 min to eliminate contaminating DNA. After UV treatment, the Template-Tamer becomes a contamination-free workstation in which to set up additional reactions that require a closed environment. **Oncor**. Circle 140.

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.

DNA Recovery from Agarose Gels

A new generation of spin columns offers efficient recovery of functional DNA from agarose gels. Place the gel slice in a GenElute agarose spin column, place the spin column in an Eppendorf tube, and centrifuge the assembly in a microcentrifuge for 10 min. DNA, recovered in the Eppendorf tube, is ready for ligation, cloning, restriction enzyme digestion, or labeling. Recovery of DNA fragments of 100 bp to 22 kbp is 80 to 90%. As little as 50 ng of DNA can be eluted from any kind of agarose. **Supelco. Circle 141.**

Genomic DNA Purification Kit

With the Wizard Genomic DNA Purification Kit, isolations can be performed in as little as 40 min on a variety of samples, including whole blood and cultured cells. The method does not require the use of any resins, columns, proteinases, or organic extractants. Yields of between 5 and 15 µg of DNA with an $A_{260/280}$ ratio of between 1.6 and 1.9 can be expected from 300-µl whole blood samples. The DNA is suitable for use in various amplification, restriction enzyme, and dot blot applications. **Promega. Circle 142.**

Gel Documentation and Analysis Software

The IS-1000 is designed to reduce the cost of gel documentation and to eliminate the need for an expensive densitometer to quantify gels. The IS-1000 is the only fully integrated



digital imaging system that offers precise image acquisition, instant high resolution prints, and quick quantitative analysis of nucleic acid and protein gels. The system is

suitable for use with a wide range of stains, including ethidium bromide, Coomassie blue, silver, and fluorescent. The unit can also be used to quantitate autoradiograms, protein immunoblots, and microtiter plates, and for counting colonies. **Alpha Innotech. Circle 143.**

Benchtop Documentation System

The FOTO/Analyst MiniVisionary Benchtop Digital Documentation System is a compact inexpensive electronic imaging system. Designed for rapid documentation of electrophoresis gels, thermal prints can be produced for a tenth of the price of conventional prints with the touch of a button. An integration feature allows the acquisition of very low light fluorescent gels; as little as 0.5 ng of ethidium bromide-stained DNA can be detected. **Fotodyne. Circle 144.**

Literature

Human Plasma Enzymes and Proteins '95 is a catalog of reagents for research into coagulation, hemostasis, thrombosis, and other blood clotting-related subjects. Products include antisera, monoclonal antibodies, enzyme substrates and inhibitors, heparin derivatives, and detergents. **Alexis Biochemicals. Circle 145.**

Bio- and Production-Chromatography Sorbents is a four-page leaflet on these products. **Merck. Circle 146.**

Microbore Peptide Mapping with the DX 500 is an application note that discusses analytical methods at low flow rates using a gradient pump. **Dionex. Circle 147.**

Developing Methods is a series of 18 reports that cover purification and concentration of monoclonal antibodies, gamma-globulin, nucleotides, and other proteins and peptides. New microporous ion exchange membranes show superior performance in these tasks. **Sartorius. Circle 148.**

Diffraction Grating Handbook describes the behavior and use of ruled and holographic gratings. *Diffraction Gratings* catalog lists a complete line of ruled and holographic gratings for all applications, including spectroscopy, fluorescence, laser tuning, and pulse compression. **Milton Roy. Circle 149.**

Understanding Full-Spectrum Quantitation (FSQ): The "Principal" behind the Application is a technical bulletin on an advanced method for multicomponent analysis on a spectrophotometer. **Beckman Instruments. Circle 150.**

custom DNA

Since 1984
Around the world

\$1¹⁹ base

NO SETUP
150 nmole scale

Includes

- >10.0 ODU
- 24 hour shipping
- 1-1,000 oligos (or more) capacity
- Experienced Technical Support

"No more compromises on quality, price and turnaround time"

Bio-Synthesis also offers large scale synthesis, any kind of special modification (Biotin, Alkaline phosphatase, dyes, S-Oligos and ...) and a lot more to satisfy every bioresearcher's need.

Visit our Home Page on the Internet (WWW):
<http://www.biosyn.com>

*orders for normal primers placed before 12 noon CST, and upto 30 bases.

BIO-SYNTHESIS, INC.

YOUR SOURCE OF OLIGONUCLEOTIDES & OLIGOPEPTIDES

Toll Free: 1-800-227-0627

Fax: 214-420-0442

Ph: 214-420-8505 E-Mail: Biosyn@aol.com

A Revolution in Oligonucleotide Synthesis!

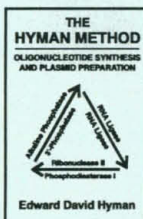
Throw away your amidite machines

Announcing the Hyman method, a new method for synthesizing oligos.

- entirely enzymatic, no highly reactive chemicals or functional groups
- entirely aqueous system, no organic solvents
- entirely solution based, no columns
- low cost nucleotide reagents, stable in water, stable to heat
- no base protecting groups, no post-synthetic deprotection
- 30 to 60 minute cycle time
- continuous synthesis scale, 0.1 ml to 1,000,000+ liters
- all biodegradable and non-toxic, no waste disposal problems
- simple post-synthetic purification, no reverse phase columns
- ideal for inexpensive pharmaceutical scale oligo production
- simultaneous synthesis of 1,000 oligos per day on a benchtop machine
- ideal for molecular biology applications, sequencing primers, PCR, etc.
- makes DNA, RNA, 2'-O-CH₃ RNA, arabinose, and chimeric oligos
- makes oligos with base analogs, fluorescent or biotin tags, wobbles, etc.

If you are planning a project which uses oligos, learn in detail how this new technology works and how it can enhance your project capabilities. Do not make the mistake of buying an amidite machine, which will be outdated by the time you receive it. Learn how the next generation of benchtop oligo synthesizers will offer 100 fold increased throughput.

Title: The Hyman Method: Oligonucleotide Synthesis and Plasmid Preparation



219 pp, 64 tables and illus, ISBN 0-9645452-0-9
Author: Edward David Hyman, copyrighted
\$ 85.00, Visa/MC accepted

Sybtrel Biotechnology
1500 Edwards Avenue, suite Q
Harahan, LA, 70123, USA
tel: 504-733-3849, fax: 504-734-5106

Circle No. 26 on Readers' Service Card

Look in the Stoelting Catalog...

For your Physiology instrumentation needs.



"Where can I find a line of affordable, automated, syringe pumps?"

See pages 24-25.

"Is there a better choice in stereotaxic instrumentation?"

See pages 2-8.

"Is there any one pipette puller that can pull all the sizes and shapes that I need?"

See page 16.



If you don't already have the Stoelting catalog, call today for your free copy.

Stoelting, 620 Wheat Lane, Wood Dale, Illinois 60191 U.S.A.
Phone: (708) 860-9700 Fax: (708) 860-9775

P.S. - Ordering is easy. We can ship direct on international orders!

Circle No. 12 on Readers' Service Card

AAAS with Pride!



Tree rings and optical tweezers. Circadian rhythms and magnetic fields. The mysteries of science come to life with these colorful, glossy notecards featuring four recent covers of Science magazine. Twelve to a set.



AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

Quantity	Non-Member	Member	Discount	Total
	\$13.50	\$10.80		
Subtotal				
Shipping and handling				\$4.00
DC and California add applicable sales tax				
For shipments to Canada, add 7% GST tax				
For foreign air mail, add 25% of subtotal				
(1) all payments must be made in U.S. dollars				
(1) Total				

Name and Address (please print)

Name _____

Address _____

City, State, Zip Code _____

Province, Country, Postal Code _____

Payment information

☐ Check/Money Order enclosed

☐ MC/Visa Exp. date _____

Credit card number _____

Signature _____

Mail To: AAAS Distribution Center, P.O. Box 521, Annapolis Junction, MD 20701 or FAX 301-206-9789, **Credit Card orders** by Phone 1-800-222-7809

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. Ads 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, Search Firms. *Science* cannot provide proofs of typeset line ads.

Mail, FAX or Email materials to:

Science Classified Advertising
1333 H Street, N.W., Room 814
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816

Internet Email: science_classifieds@aaas.org
(please include telephone number in email correspondences)

Rates: Ads are \$43 per line; \$430 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. Line advertisements are not commissionable.

Estimates: *Science* will provide a cost estimate for line ads. This is an approximate cost only. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.

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 Gordon Clark at +44 1223 302 067 (telephone) or +44 1223 576 208 (FAX).

Credit Cards: *Science* accepts American Express, 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. for fractional display ads call:

Deborah Cummings
Recruitment Display Advertising
Telephone: 202-326-6541
FAX: 202-682-0816

Janis Crowley
Recruitment Advertising Manager
Telephone: 212-496-7704
FAX: 202-682-0816

Gordon Clark
European Recruitment Advertising
Telephone: +44 1223 302 067
FAX: +44 1223 576 208

Science JOBNET: Unless otherwise instructed, every classified advertisement submitted for publication in *Science* is automatically posted on *Science's* on-line classified advertising service, Science JOBNET, at no additional charge. Science JOBNET address:

Gopher: gopher.aaas.org
WWW: <http://www.aaas.org>

Science reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

POSITIONS OPEN

MOLECULAR PHARMACOLOGY OF ION CHANNELS

The Department of Pharmacology, University of Kentucky College of Medicine at Lexington is expanding its programs in Molecular Pharmacology. Excellent facilities and new resources are available to support this expansion. A tenure-track position is available immediately at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. We encourage applications from candidates whose research involves the use of modern molecular methods in the study of the structure and function of voltage-gated or ligand-gated ion channels. Potential relevance to neurodegenerative, cardiovascular or other related disease conditions is desirable but not essential. Candidates should have a Ph.D. or M.D., with several years of postdoctoral experience and clear evidence of the ability to sustain or develop an independent, externally funded research program. The successful candidate should also be interested in possible collaborative departmental projects with other faculty involved in molecular and electrophysiological research. Participation in departmental training of medical and graduate students is also an important aspect of this position. Interested candidates should send curriculum vitae and the names, addresses and telephone numbers of three references to:

Search Committee A
Department of Pharmacology
University of Kentucky
College of Medicine
MS-309 Medical Center
Lexington, KY 40536-0084

The University of Kentucky is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

YALE UNIVERSITY DEPARTMENT OF CHEMISTRY

The Department of Chemistry, Yale University, invites applications for a position at the **ASSISTANT PROFESSOR** level to commence fall 1996. We seek creative teacher-scholars who show promise for developing outstanding research programs in the broad field of organic chemistry. Applicants should send curriculum vitae and a statement of research plans and arrange for the submission of three letters of recommendation. All materials should be received by 31 October 1995. Send applications to: **Professor Alanna Schepartz, Chair, Organic Chemistry Search Committee, P.O. Box 208107, Yale University, New Haven, CT 06520-8107.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION THE WEIZMANN INSTITUTE OF SCIENCE

The Department of Biochemistry at The Weizmann Institute of Science, Rehovot, Israel is seeking applicants for a tenure-track position at the Senior Scientist (**ASSISTANT PROFESSOR**) level starting in the spring of 1996 or later. The Department of Biochemistry provides an excellent and stimulating research environment with groups conducting research in molecular genetics (gene expression, DNA replication and repair) and bioenergetics (membrane transport systems and photosynthesis). Candidates are sought in these and other areas of biology, preferably with a background in protein-DNA interactions, molecular or developmental genetics, enzymology, or protein structure and biophysical methods. The successful candidate is expected to establish an independent and creative research group.

Applications should include research plans, curriculum vitae, list of publications and the names of three references, and should be sent to: **Prof. Zvi Livneh, Head, Department of Biochemistry, Weizmann Institute of Science, Rehovot 76100 Israel.**

NATIONAL TAIWAN UNIVERSITY DEPARTMENT OF BOTANY

Applicants are invited for three faculty positions (**ASSISTANT** to **FULL PROFESSOR**). A Ph.D. with experience in any area of plant sciences will be considered, but R.O.C. citizenship is required. Positions are available August 1, 1996. The search committee will accept applications until all positions are filled. Please send curriculum vitae, copy of diploma, summary of research and teaching experience, transcripts, pertinent reprints, and three letters of recommendation to: **Dr. C. Y. Tsai, Department of Botany, National Taiwan University, Taipei, Taiwan, ROC.**

POSITIONS OPEN

ASSISTANT PROFESSOR OF FOOD CHEMISTRY

The Department of Food Science at Cornell University invites applications for a 12-month tenure-track **ASSISTANT PROFESSORSHIP**. Responsibilities will include teaching an undergraduate course in food analysis, participation in a graduate level team-taught course in advanced food chemistry, and development of an innovative research program in food chemistry that will attract external funding and provide research training for undergraduate and graduate students. Qualifications include a Ph.D. in food science, biochemistry, chemistry, or closely related field and demonstrated achievement or potential in effective teaching and creative research. Applicants should submit a letter of application; statement of teaching and research interests and goals; curriculum vitae; undergraduate and graduate transcripts; and have three letters of reference sent to: **David Barbano, Department of Food Science, 118 Stocking Hall, Cornell University, Ithaca, NY 14853-7201. Telephone: 607-255-7616.** Review of applications will begin on September 15, 1995. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF GENETICS UNIVERSITY OF WASHINGTON

The Department of Genetics at the University of Washington seeks applicants with at least two years of postdoctoral experience for a tenure-track position at the level of **ASSISTANT PROFESSOR**. The Department seeks an individual who will develop an active research program using genetic approaches to study a fundamental biological process and who will teach at both the graduate and undergraduate levels. Applicants should submit a curriculum vitae, summary of research interests, copies of two or three major publications and three letters of reference by October 15, 1995, to:

Search Committee
University of Washington
Department of Genetics
Box 357360
Seattle, WA 98195-7360

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

The University of Virginia is seeking qualified applicants for a tenure-track **ASSISTANT PROFESSOR** position in the area of organic chemistry. Candidates are expected to establish a high quality productive research program that will attract outside funding and top caliber graduate students and postdoctoral collaborators. Teaching ability at both graduate and undergraduate levels is a prime consideration. Applicants should send a curriculum vitae, copies of reprints/preprints, and a detailed description of research plans no later than November 1, 1995, to: **Prof. James A. Marshall, Chairman of Organic Faculty Search Committee, Department of Chemistry, McCormick Road, University of Virginia, Charlottesville, VA 22903.** Applicants should also arrange that three letters of recommendation be sent to the above address by the same date. *The University of Virginia is an Equal Opportunity/Affirmative Action Employer.*

The University of Vermont College of Medicine is seeking both candidates and nominations for the position of **PROFESSOR** and **CHAIR** of the Department of Pharmacology. Current strengths of the Department exist in studies at the tissue, cellular and molecular level in the areas of vascular biology, cancer biology, and ion channels research. Ph.D., M.D. or equivalent degree is required. Candidates should have a demonstrated record of: leadership, excellence in teaching, and productivity in research.

Applications will be accepted until the position is filled. Review of the candidates will begin by September 15, 1995. Curriculum vitae and a letter of interest should be sent to:

Edwin G. Bovill, M.D.
Chair, Department of Pharmacology Search Committee
Chair, Department of Pathology
University of Vermont College of Medicine
E-109 Given Building
Burlington, VT 05405

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic and cultural backgrounds are encouraged to apply.

POSITIONS OPEN

ASSISTANT PROFESSOR PHARMACOLOGY AND TOXICOLOGY

A **TENURE-TRACK FACULTY** position is available in the Department of Medical Pharmacology and Toxicology. Areas of special interest are cardiovascular and ocular systems. The successful candidate is expected to develop a strong independent research program. Send application by November 1, 1995; the position will be available January 1996. Applications should include curriculum vitae, selected reprints, statement of research interests and three letters of reference to: **Dr. James L. Way, Chair, Search Committee, Department of Medical Pharmacology and Toxicology, Texas A&M University School of Medicine, College Station, TX 77843-1114. Equal Opportunity/Affirmative Action Employer.**

CHAIR, DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCES

CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE

Case Western Reserve University (CWRU) School of Medicine invites applications and nominations for the position of **CHAIR** of the Department of Environmental Health Sciences. The department participates in the new CWRU Institute of Public Health. We seek a distinguished investigator in basic or applied approaches to environmental health science with emphasis on human health and a broad vision with respect to public health implications to continue the CWRU tradition of interdisciplinary research and education. The individual would be expected to expand existing departmental Master's and doctoral programs to include new educational initiatives. Letters of application and curricula vitae should be submitted to: **G. Richard Olds, M.D., Chair, Environmental Health Sciences Search Committee, c/o Office of Faculty Affairs, CWRU School of Medicine, 10900 Euclid Avenue, Cleveland, OH 44106-4915.**

Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.

THE ERNA AND JAKOB MICHAEL VISITING PROFESSORSHIPS 1996/97

THE JOSEPH MEYERHOFF VISITING PROFESSORSHIPS 1996/97

THE ROSIE AND MAX VARON VISITING PROFESSORSHIPS 1996/97

THE MORRIS BELKIN VISITING PROFESSORSHIP 1996/97

The Weizmann Institute of Science, Rehovot, Israel offers a limited number of **VISITING PROFESSORSHIPS** in the Natural and Exact Sciences.

The Visiting Professorships are intended for candidates already holding the rank of Full Professor or equivalent and will be for a duration of two months to one year.

Deadline for submission of completed applications is: December 31, 1995.

For further information or application forms, please contact: **The Academic Secretary, The Weizmann Institute of Science, Rehovot 76100 Israel. Tel: 972-8-381300; FAX: 972-8-471667; Email: RSMARJOR@WEIZMANN.WEIZMANN.AC.II.**

UCLA TENURE-TRACK FACULTY POSITIONS VECTOR BIOLOGY AND GENE THERAPY

The UCLA Interdepartmental Program in Gene Therapy announces a search for **FACULTY** with research interests in the broad field of genetic therapy with special emphasis on the fundamental problem of vector biology. Candidates will be considered for appointment at any academic level commensurate with experience. Ability to direct a vigorous independent research program as well as interact with the broad community of clinical and basic scientists interested in these emerging technologies is required. Send curriculum vitae, addresses and telephone numbers for three references, and a statement of research experience and future plans via standard mail to: **Owen Witte, M.D., Chair, Gene Therapy Search Committee, HHMI, 5-748 MRL, UCLA, 10833 Le Conte Avenue, Los Angeles, CA 90095-1662 or via overnight delivery services to HHMI/UCLA, 5-720 MRL, 675 Circle Drive South, Los Angeles, CA 90095. Applications received before October 1, 1995, will be considered for interviews in the fall of this year. The University of California is an Affirmative Action/Equal Opportunity Employer. Women, minorities and persons with disabilities are encouraged to apply.**

POSITIONS OPEN

TWO FACULTY POSITIONS DEPARTMENT OF NEUROSCIENCE Tufts University School of Medicine Boston, Massachusetts

Two intermediate to senior level **TENURE-TRACK POSITIONS** for faculty with currently funded, independent research programs are available, with interviews beginning in the fall of 1995. One position is for an individual with extensive and broad molecular biology training applied to a research program in neuroscience. The second position is open to individuals with research interests including, but not limited to, signal transduction, immunology/virology/neurobiology, development, and systems neurobiology. Tufts Neuroscience grants a Ph.D. in neuroscience, including students on an M.D./Ph.D. track. The department is interactive and has ties with clinical research programs as well. Teaching responsibilities are directed to both graduate and medical students. Please send a current curriculum vitae and a statement of research interests to: **Neuroscience Search Committee, Neuroscience Department, Tufts University Medical School, 136 Harrison Avenue, Boston, MA 02111. FAX: 617-636-7413; Email: bdangelo@infonet.tufts.edu.** For more information about Tufts Neuroscience, go to: <http://www.neurosci.tufts.edu/homepage.html>. *Tufts is an Equal Opportunity/Affirmative Action Employer.*

CHILDREN'S NUTRITION RESEARCH CENTER BAYLOR COLLEGE OF MEDICINE

The Children's Nutrition Research Center at Baylor College of Medicine is recruiting at the **PROFESSOR** level and is seeking applications from qualified scientists with Ph.D. and/or M.D. degrees and established credentials in the stable isotope field. Candidates are expected to define innovative new directions for stable isotope studies of human nutritional biochemistry during pregnancy, lactation, and childhood, particularly in the areas of amino acid and carbohydrate metabolism. Candidates must have: 1) an active and distinguished research record in the use of stable isotope tracers for investigational studies of human metabolic fuel transport and its hormonal regulation; 2) demonstrated expertise in the basic discipline of mass spectrometry including operation and maintenance of gas chromatography-mass spectrometry, gas isotope ratio mass spectrometry, and GC-Combustion-IRMS systems as well as demonstrable skills in administering facilities housing such instrumentation; 3) command of tracer kinetic modeling and demonstrated ability in the design and interpretation of tracer kinetic experiments; 4) proven record of independent extramural research support; 5) recognized teaching skills and established credentials in training young investigators; 6) national and international recognition for achievements and leadership in the aforementioned areas.

Interested candidates should submit their curriculum vitae and the names of six references to: **Dennis M. Bier, M.D., Director, Children's Nutrition Research Center, Baylor College of Medicine, 1100 Bates Street, Houston, TX 77030-2600. Telephone: 713-798-7022; FAX: 713-798-7046; Email: dbier@bcm.tmc.edu.**

Baylor College of Medicine is an Equal Access/Equal Opportunity/Affirmative Action Employer. Women and member of minority groups are strongly encouraged to apply.

FACULTY POSITION IN NUTRITIONAL BIOCHEMISTRY

The Department of Nutritional Sciences, University of California at Berkeley is seeking an **ASSISTANT PROFESSOR** for a nine-month tenure-track position beginning July 1, 1996. The appointee will be expected to develop an independent research program in the area of nutritional biochemistry. Areas of interest include, but are not limited to, mechanisms underlying nutrient and/or dietary component effects on gene expression, DNA repair, or cell growth/differentiation, and genetic influences on metabolism. The appointee may work with graduate students seeking advanced degrees in Nutrition, Comparative Biochemistry and Molecular Biology, Endocrinology or related fields. Teaching assignments will be compatible with the candidate's expertise and interests. Send a curriculum vitae, a statement of research interests, and the names of at least three referees to: **Chair, Nutritional Biochemistry Search Committee, Department of Nutritional Sciences, 119 Morgan Hall, University of California, Berkeley, CA 94720. Application deadline: November 15, 1995. Applications submitted after the deadline will not be considered.**

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

POSITIONS OPEN

CHIEF RADIATION BIOLOGY BRANCH FOOD AND DRUG ADMINISTRATION

The Center for Devices and Radiological Health, Food and Drug Administration (FDA) is seeking a qualified individual to serve as **CHIEF**, Radiation Biology Branch, Division of Life Sciences, Office of Science and Technology. Responsibilities include direction and development of intra- and extramural FDA-related scientific programs in radiation biology; developing regulatory, educational, and other strategies concerning radiation-emitting products; representing FDA to national and international organizations; and establishing the agency technical basis for regulatory and policy matters.

A Ph.D., M.D., or equivalent degree in Biology, Microbiology, Biochemistry, or Physics is required with demonstrated research experience in relevant scientific areas in radiation biology. Candidates must have managerial skills and an understanding of policy development. Appointment will be at the GS-15 level (\$71,664 to \$93,166) depending upon the experience and qualifications of the candidate. Appointment may also be made through the U.S. PHS Commissioned Corps for qualified candidates.

For official announcement and application information please contact: **Dr. Mary E. Jacobs, Director, Division of Life Sciences, HFZ-110, 5600 Fishers Lane, Rockville, MD 20852. Telephone: 301-443-7115; FAX: 301-594-6775; Email: mej@fdadr.cdhr.fda.gov.**

FDA is an Equal Opportunity Employer.

The Mayo Clinic Department of Laboratory Medicine and Pathology is seeking a **CO-DIRECTOR** for the Molecular Genetics Laboratory. The Molecular Genetics Laboratory currently offers a wide range of diagnostic assays for both inherited as well as neoplastic disorders, with an annual volume of approximately 3,500 cases. The successful candidate will have either an M.D. or Ph.D. degree with a minimum of two to three years of experience in clinical molecular genetics/molecular pathology. American Board of Medical Genetics certification or eligibility is desirable. The primary responsibility will be clinical, which will include interpretation and signing out of test results, troubleshooting of problems in the laboratory, participating in quality assurance programs, and the development of new tests and/or technology. This individual will also be expected to participate in, or develop, an active program in education (technologists, residents, fellows) and/or research. Rank and salary will be commensurate with experience. Applications should be received prior to August 25, 1995. Curriculum vitae, a cover letter detailing experience, future interests, and names of three individuals that can provide letters of recommendation should be sent to: **Stephen N. Thibodeau, Ph.D., Director, Molecular Genetics Laboratory, Mayo Clinic, 200 First Street SW, Rochester, MN 55905. FAX: 507-284-0043. Mayo Foundation is an Affirmative Action and Equal Opportunity Employer.**

FACULTY POSITION INFLAMMATION RESEARCH

The Department of Physiology at the Louisiana State University Medical Center (LSUMC) in Shreveport invites applications for a **TENURE-TRACK FACULTY** appointment beginning January (spring) 1996. Although preference will be given to candidates at the rank of Assistant Professor, outstanding applicants at the Associate or full Professor levels will also be considered. Applicants must have a Ph.D. and/or M.D. degree and appropriate postdoctoral research experience. We are seeking individuals with demonstrated competence in the use of modern cell and/or molecular biological approaches and whose research interests complement existing areas of excellence in the biochemistry, molecular and cellular biology of inflammation. The appointee will be expected to establish a vigorous independent research program supported by extramural funding, and to participate in the teaching of graduate and medical students. Applicants must submit a curriculum vitae, a brief summary of current and future research plans, and the names of three references to: **Ms. Shari Boyett, Search Committee Coordinator, Department of Physiology, LSU Medical Center, 1501 Kings Highway, Shreveport, LA 71130. The closing date for applications is October 1, 1995, or until the position is filled. LSUMC is an Equal Opportunity/Affirmative Action Employer.**

POSITION IN SIGNAL TRANSDUCTION AT THE NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

The National Institute of Environmental Health Sciences, National Institutes of Health, seeks to appoint an outstanding scientist in the field of molecular signal transduction. Applications are invited from candidates at levels qualifying for tenure-track positions, as well as from more senior scientists with established programs. All candidates with demonstrated potential for creative research in the biological sciences may apply, but priority will be given to applicants utilizing cellular and molecular approaches to study intermediate steps in signal transduction pathways, for example, phosphorylation-dephosphorylation cascades. In addition to establishing an independent program of basic research, the successful candidate will have the opportunity to interact with investigators studying diverse problems in the field of signal transduction, including receptor mechanisms, G-proteins, inositol phosphates, calcium signalling, ion channels, cell growth and differentiation, apoptosis, gene regulation and cancer biology. This position will be either tenure-track (Senior Staff Fellow) or immediately tenured at the GS-13, GS-14 or GS-15, level, depending upon the qualifications of the successful candidate. There is also the possibility of hiring under the aegis of the newly created (Sylvio Conte) Senior Biomedical Research Service. Excellent space and research support are available. The level of support will be commensurate with the rank at which the successful candidate is hired.

For additional information concerning this position, contact Dr. Christina Teng, Chair, Signal Transduction Search Committee, at 919-541-0344, or Dr. James Putney, Chief, Laboratory of Cellular and Molecular Pharmacology, at 919-541-1420. Applications from women or minority groups are particularly welcome. Interested parties should send a curriculum vitae with bibliography and a brief statement of research interest, and should arrange for three letters of recommendation to be sent by September 15 to:

NORMA DAYE

**HUMAN RESOURCE MANAGEMENT BRANCH (HNV117)
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES
P. O. Box 12233, RESEARCH TRIANGLE PARK, NC 27709
(919- 541-7513)**

NIEHS/NIH is an Equal Opportunity Employer

Protein Chemist

ZymoGenetics, a Seattle-based biotechnology company, currently has a Scientist-level position open in the Protein Chemistry Dept.

The successful candidate will be responsible for purification and characterization of proteins from natural and recombinant sources.

Only candidates with a proven record of experience in the fields of hemostasis, hematopoiesis, immunology or diabetes will be considered. In addition, experience in protein purification and characterization at both the microgram and milligram levels is required, as well as a Ph.D. degree and 2+ years post-doctoral work experience.

As a subsidiary of Novo Nordisk A/S, the world's largest manufacturer of insulin, ZymoGenetics offers an exciting environment characteristic of a small research and development company, along with the scope and stability of a large pharmaceutical corporation. We also offer intellectual challenge, state-of-the-art facilities and a generous benefits package. Please apply by sending your CV and cover letter, noting reference #PROCHEM795, to: ZymoGenetics, Inc., Human Resources, 1201 Eastlake Avenue East, Seattle, WA 98102. ZymoGenetics is committed to Equal Opportunity and Diversity.

ZYMOGENETICS 

Novo Nordisk

Discover a Unique Approach

At Amgen, you'll discover a research environment that emphasizes collaboration, intellectual honesty, scientific integrity, and a supportive culture. This unique approach has helped us grow into a global biotechnology leader in just fifteen years.

RESEARCH SCIENTIST

This position requires a Ph.D. in the Life Sciences or related field and postdoctoral training or related experience. Qualified candidates will typically have 4 years' experience designing and conducting complex experiments in a research or laboratory setting. Background should also include experimental hematology with an emphasis on molecular biology and/or experience with cell-cycle analyses or gene therapy. Excellent communication, management, and problem-solving skills are also required. The ability to develop new hypotheses for scientific experiments and interpretations is essential. (Job Code: OXP-SC-2761)

RESEARCH ASSOCIATE

This position requires a BS in Biological Sciences. Qualified candidates typically have 4 years' experience and a background in mammalian cell tissue culture of established cell lines including the maintenance and passage of these lines. Ability to recognize and solve problems while encountering tissue culture under minimal supervision is essential. The preferred candidate will have a MS in Biological Sciences or Protein Chemistry and 3 years' experience. Experience on a cytoSensor is greatly desired. (Job Code: OXP-SC-2769)

We recognize that diverse perspectives are a key factor in the process of discovery.

At Amgen, you'll find our approach to scientific research as rewarding as it is effective. We offer a highly competitive compensation and benefits package that includes a retirement and savings plan, an on-site fitness center, and three weeks' vacation. Please mail or fax your resume/c.v. to: Amgen, Staffing, Job Code (see above), Amgen Center, Thousand Oaks, CA 91320-1789. Fax: (805) 499-9981. Please consult our on-line Job Bulletin Board at <http://www.bio.com> for information on other career opportunities available at Amgen. Principals only, please.

EEO/AA Employer M/F/D/V

AMGEN®

POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

Candidates for **ASSISTANT PROFESSOR** (tenure-track) must hold a Ph.D. or equivalent degree, have at least two years of postdoctoral training, and be highly capable in research and teaching. Individuals working in the areas of regulation by second message systems, lipid regulators, polymorphisms in drug-metabolizing or DNA repair capacity, or alterations of oncogenes and/or tumor suppressor genes are especially encouraged to apply. The position is associated with an NIEHS-supported Center for Environmental Health Sciences. The School of Medicine has core facilities for the synthesis and sequencing of peptides, flow cytometry, electron microscopy, and mass spectrometry. The successful applicant will be expected to develop and maintain an independent, funded research program and to participate in the training of medical, dental, and graduate students. Interested individuals should submit a curriculum vitae, list of four persons familiar with the candidate's qualifications, and a brief statement of research interests to: **Search Committee, Department of Biochemistry, University of Louisville School of Medicine, Health Sciences Center, Louisville, KY 40292**. Applicants will be accepted up to October 1, 1995, or until a suitable candidate is identified. *The University of Louisville is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH SCIENTIST/POSTDOCTORAL FELLOW: Desire Ph.D. with experience in HIV molecular biology to be a research scientist in a laboratory-based program on the pathogenesis of HIV. Person will be involved in laboratory-based program involved in studies in humans and primates of natural history and immunology of HIV. Experience with PCR, cloning, sequencing and other molecular biologic assays with HIV essential. Contact: **Lawrence Corey, M.D., University of Washington, c/o Pacific Medical Center, Mail Stop 358260, 1200 12th Avenue South, Room 9301, Seattle, WA 98144**. *The University of Washington is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOW RESEARCH INVESTIGATOR

Position available to work on sexual transmission of pathogens using both *in vitro* and animal models to study the mechanism of transmission of a variety of pathogens, especially HIV, chlamydia, and gonococcus. Ph.D., M.D. or equivalent degree, and knowledge of microbiology and experience with small laboratory animals required. Send curriculum vitae and names and addresses of three references to: **Dr. David Phillips, The Population Council, Center for Biomedical Research, 1230 York Avenue, Box 273, New York, NY 10021**. *An Equal Opportunity/Affirmative Action Employer/Minority/Female.*

POSTDOCTORAL POSITION available immediately to subtype and characterize *Helicobacter pylori* is a bacterium highly associated with gastroduodenal disease, including peptic ulcer disease and gastric cancer. The position requires at least two years of experience in molecular biology. Knowledge/training in microbial genetics and physiology highly desirable. Send curriculum vitae, names and telephone numbers of three references, and date available to: **Mae F. Go, M.D., Baylor College of Medicine & VA Medical Center, (111D), 2002 Holcombe Boulevard, Houston, TX 77030**.

RESEARCH ASSOCIATE in Oceanic Data Visualization to manage data visualization, computing, and networking resources of a university ocean modeling research facility. Qualifications: Minimum of a Master's degree in Computer Science or a related scientific field, with experience in: programming in C, FORTRAN, and assembler, including development of applications for oceanic data visualization and analysis; installing and maintaining Mac, SGI, SUN and IBM-PC; IDL; X-Windows; UNIX; Internet and World Wide Web. This is a 12 month continuing non-tenure-earning position with a minimum annual salary of \$30,000. The application deadline is August 16, 1995. Submit résumé by August 16, 1995, to: **Job Service of Florida, 2312 Gulf-to-Bay Boulevard, P.O. Box C, Clearwater, FL 34618-4090**.

POSITIONS OPEN

POSTDOCTORAL FELLOW to conduct research on particle deposition in human respiratory tract, through theoretical and experimental analyses utilizing models and human volunteers. Strong background in aerosol experiments and fluid mechanisms required. Mathematical and numerical modeling ability desired. Send résumé to: **Dr. Philip A. Bromberg, Director, University of North Carolina at Chapel Hill Center for Environmental Medicine and Lung Biology, CB No. 7310, Chapel Hill, NC 27599-7310**.

A **POSTDOCTORAL POSITION** is available immediately to study signal transduction and AP-1 binding activity in the regulation of bFGF gene expression. A strong background in biochemistry and molecular biology is required. Please send curriculum vitae and three (3) references to: **Yong J. Lee, Ph.D., Department of Radiation Oncology Research Laboratories (103-RST), William Beaumont Hospital, 3601 West Thirteen Mile Road, Royal Oak, MI 48073**. FAX: 810-551-2443. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS are available to study the control mechanisms of gene expression and signal transduction of two human cytokines, interleukin (IL)-9 and IL-11. Candidates with background in molecular biology or biochemistry, interested in understanding the role of these growth factors, should send curriculum vitae and addresses of three references to: **Dr. Yu-Chung Yang, Departments of Medicine (Hematology/Oncology) and Biochemistry/Molecular Biology, Walther Oncology Center, Indiana University School of Medicine, IB540, 975 West Walnut Street, Indianapolis, IN 46202**. Telephone: 317-274-7512; FAX: 317-274-7592.

POSTDOCTORAL POSITION available immediately to study maternal-fetal SIV transmission and molecular determinants of tropism *in vitro* and *in vivo*. Experience required with molecular biology and pathophysiology of primate retroviruses, primary/transformed cell culture, PCR amplification, and gene/cDNA cloning. Please send curriculum vitae and addresses and telephone numbers of three references to: **Dr. Thaddeus G. Golos, Ph.D., Wisconsin Regional Primate Research Center, University of Wisconsin, 1223 Capitol Court, Madison, WI 53715-1299**. Email: golos@primate.wisc.edu. *Affirmative Action/Equal Opportunity Employer.*

READING the TRENDS: Career Opportunities in European Biotechnology and Pharmaceuticals

A Science Advertising Supplement

Advertising Space Reservation Deadline: 5 September 1995
Issue Date: 22 September 1995

Reach the Top European Scientists.

Highlight your full-page recruitment advertisement in this special advertising supplement on 22 September. All full page recruitment advertisements receive placement in the editorial section of the supplement. Fractional recruitment ads will be highlighted by a new Global Career Opportunities banner in the regular recruitment section of this issue.

Bonus Distribution.

Advertisers also benefit from a bonus distribution to thousands of scientists at 15 universities all over the UK as well as attendees at the Lab Expo & Conference, 3-5 October in London.

For advertising information, please call :

In Europe, Gordon Clark at (44) 01223 302 067,
or fax: (44) 01223 576 208.

In the U.S., Janis Crowley at (212) 496-7704
or fax to (202) 682-0816.

The following 15 universities will receive a special reprint of the special advertising supplement, Reading the Trends:

- Amsterdam Free University
- Birmingham University
- Bristol University
- Cambridge University
- Cambridge University (MRC Centre)
- Edinburgh University
- Glamorgan University
- Imperial College
- Kings College
- Leeds University
- Manchester University
- Oxford University
- Queens University of Belfast
- Reading University
- Sussex University

SCIENCE
COVERS THE WORLD

INDUSTRIAL BIOTECHNOLOGY

Energy BioSystems is a young, well funded, industrial biotechnology corporation specializing in the application of biotechnical systems to the chemical and energy industries. The company is expanding its R&D laboratories in the northern Houston suburb of The Woodlands, and is seeking personnel for its molecular genetics and process development programs. This is an opportunity to join a rapidly growing biotechnology company at an early stage in its development.

Research Scientist-Molecular Genetics

Duties include planning and executing research to identify, clone, determine function, etc., of genetic elements of multi-step biodesulfurization pathway & creatively use gene regulation/expression systems to deregulate pathway. **Requirements** of this position include a Ph.D. in Molecular Genetics, Biochemistry or related field and 2+ years experience. Strong knowledge of microbial biosynthetic/biodegradative pathways. Demonstrated ability to obtain results and a strong publication record. Team player able to interact meaningfully with multidisciplinary group.

Senior Research Engineer/Scientist

As a member of the process development team, the successful candidate will be responsible for planning and executing specific objectives within the overall plan for development of an engineered, microbially mediated process for the removal of organosulfur compounds from petroleum. **Duties** include hands-on operation of laboratory-pilot systems. Validate process model and optimize performance. Interact with pilot plant on scale-up experiments. Exercise independent judgment in developing methods, techniques, and evaluating criteria for obtaining results. **Requirements** of this position include a Ph.D. in biochemical/chemical engineering or biochemistry/chemistry and 3+ years of experience in a research and/or development environment. Successful candidate must have a strong knowledge of oil/water/solids separations and a demonstrated ability to obtain results and to interact meaningfully with multidisciplinary group.

Please send resume in confidence along with a cover letter stating the name of the position. Also send the names, addresses and telephone numbers of relevant references to:

Human Resource Manager
Energy BioSystems Corporation
4200 Research Forest Drive
The Woodlands, Texas 77381



No Phone Calls - EOE

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

ASSISTANT PROFESSORSHIP IN ORGANIC CHEMISTRY

Applicants are invited to apply for an assistant professorship in organic chemistry. Applicants should arrange to have three letters of recommendation sent independently and should provide a curriculum vitae, a list of publications and outlines of two future research projects. Applications and supporting materials should be sent no later than 21 October 1995 to Professor Elias J. Corey, Chairman of the Faculty Search Committee, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138-2902. *Harvard University is an Affirmative Action, Equal Opportunity Employer and welcomes applications from women and minority group members.*

Clinical Research Associate/Ph.D.

The Alfred I. duPont Institute of the Nemours Foundation is a growing, multi-specialty hospital for children. The Department of Clinical Research currently has an opportunity available for a full-time Clinical Research Associate.

This research represents a collaboration between the Gastroenterology Research Program and the Laboratory of Epithelial Cell Biology. Current studies will focus on gastrointestinal epithelial function and alterations which occur during the process of inflammation.

Candidates should have a Ph.D. degree. Cell culture experience and a background in either inflammation or epithelial function, including electrophysiology, are highly desired.

For consideration, please send resume to: **Roy Proujansky, M.D., Alfred I. duPont Institute, Dept. #7440, P.O. Box 269, Wilmington, DE 19899. FAX: 302-651-5948.** Equal Oppty. Employer, M/F.



**Alfred I. duPont
Institute**
OF THE NEMOURS FOUNDATION
A CHILDREN'S HOSPITAL

POSTDOCTORAL POSITION IN EXPERIMENTAL ONCOLOGY

St. Jude Children's Research Hospital Memphis, Tennessee

Funding is immediately available for one postdoctoral fellow to join an ongoing research program involved in the regulation of intracellular calcium signaling, particularly as it relates to control of the cell cycle and cell proliferation. Successful applicants must have completed a Ph.D. or M.D. degree, and should have extensive experience with molecular biologic techniques. Please send curriculum vitae, a description of research experience, and the names, addresses, and telephone numbers of three references to: Richard Bram, M.D. Ph.D., Department of

Experimental Oncology,
St. Jude Children's
Research Hospital, 332 N.
Lauderdale, Memphis, TN
38105 (bram@stjude.org).
An Equal Opportunity/Affirmative Action Employer.



POSITIONS OPEN

TWO POSTDOCTORAL POSITIONS IN SYSTEMS NEUROSCIENCE

Opportunities available to conduct research into the physiological, anatomical and pharmacological bases of pain modulation. Individuals with predoctoral or up to three years of postdoctoral experience in electron microscopy, immunocytochemistry, *in vivo* electrophysiology, or behavioral pharmacology with a strong background in neuroscience are desired. Ph.D. in Neuroscience, Physiology, Pharmacology or Anatomy required. Mail curriculum vitae and the names, telephone and fax numbers of three references to: **Dr. Herbert K. Proudfoot, Department of Pharmacology MC 868, University of Illinois at Chicago, 835 South Wolcott, Chicago, IL 60612.** *Equal Opportunity Employer.*

TWO NEUROBIOLOGY LABS MOVING Ambitious Postdoctorals Wanted

Positions available in Program Project Grant to study molecular/cellular basis of taste transduction in new labs at University of Miami School of Medicine. Seeking experienced Ph.D.'s: molecular biologist, immunocytochemist, patch-clamp electrophysiologist. Applications (curriculum vitae, experience, three references) to: **Dr. Nirupa Chaudhari** or **Dr. Stephen Roper, Department of Physiology and Biophysics (R430), P.O. Box 016430, University of Miami School of Medicine, Miami, FL 33101.** Inquiries: nchaudhari@vines.colostate.edu; telephone: 303-491-7286; or roper@lamar.colostate.edu; telephone: 303-491-7808.

POSTDOCTORAL POSITION available to study the molecular and cellular role of opioid receptors in the function and differentiation of T-cells. Studies will include a molecular analysis of the receptor structure and processing. Experience in molecular and/or cellular biology required. Applicants must be United States citizens or have resident alien status. Please send curriculum vitae and at least three letters of reference to: **Dr. Thomas J. Rogers, Department of Microbiology and Immunology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, PA 19140.** FAX: 215-707-7788. *An Equal Opportunity/Affirmative Action Employer and applications from women and minorities are encouraged.*

POSTDOCTORAL POSITIONS available immediately in Biochemical Toxicology to study: (1) colon carcinogenesis in a chimeric mouse model using immunocytochemical and molecular techniques (**Daniel Rosenberg**), and (2) respiratory tract cellular disposition of inspired irritants and carcinogens using biochemical techniques and PBPK modeling (**John Morris**). Applicants should send a curriculum vitae and names of three references to either investigator at: **Department of Pharmaceutical Sciences, School of Pharmacy, Box U-92, University of Connecticut, Storrs, CT 06269-2092.** We encourage applications from underrepresented groups including people of color, women and people with disabilities. (Search No. 5A385)

POSTDOCTORAL POSITIONS to apply advanced Optical Mapping approaches to human genome analysis (see *Science*, 262:110-114, 1993; *Nature Genetics*, 9:432-438, 1995; *PNAS*, 92:165-169, 1995; *CGE News*, May 15, 1995). Develop new approaches to sequencing, applications of new genotyping methodologies, whole genome approaches to restriction mapping and gene hunting. Send curriculum vitae, summary of past research, and three letters of reference to: **Dr. David C. Schwartz, New York University, W. M. Keck Laboratory for Biomolecular Imaging, Department of Chemistry, New York, NY 10003.**

POSTDOCTORAL POSITION Tumor Suppressor Gene Research Duke University

Position available immediately in a NIH-funded study to investigate the role of the M6P/IGF2 receptor and TGF β in liver and breast carcinogenesis. Applicants with a Ph.D. or M.D. and a strong molecular biology background should submit their curriculum vitae to: **Dr. Randy L. Jirtle, Box 3433, Duke University Medical Center, Durham, NC 27710.** FAX: 919-684-5584; Email: jirtle@radonc.duke.edu. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS MUCOSAL IMMUNOLOGY

Two **POSTDOCTORAL POSITIONS** beginning September 1995 for new NIH projects on mucosal B cell biology. One position concerns the newly defined role of HIV gp120 as a B cell (VH3 gene family) superantigen (*Science*, 261:1588, 1993; *Ann. J. Pathol.*, 144:623, 1994; *J. AIDS*, 7:641, 1994), and the mechanism by which these antibodies confer resistance to HIV mucosal transmission and long-term survival. A second position concerns use of phage-display cloning strategies to isolate marker antibodies and candidate antigens in inflammatory bowel disease pathogenesis (*J. Clin. Invest.*, 92:1080, 1993; *J. Immunol.*, 153:3756, 1994). Successful applicants should have recently completed Ph.D. in cellular immunology, analytic biochemistry, and/or molecular biology. Send curriculum vitae, research interests, and names of three references to: **Jonathan Braun, Pathology CHS 13-186, UCLA, Los Angeles, CA 90095-1732.** FAX: 310-206-5178. *An Equal Opportunity Employer.*

CYANAMID REGULATORY TOXICOLOGY POSTDOCTORAL ASSIGNMENT

The Agriculture Research Center of American Cyanamid Company is seeking an individual for a **POSTDOCTORAL** assignment with our Regulatory Toxicology group. You will design, monitor and review the full range of toxicology studies and research performed in-house and on contract, and respond to regulatory questions involving EPA, FDA and international registrations of pesticides and animal drugs. The position requires a Ph.D. in toxicology or a related medical field.

American Cyanamid offers a competitive compensation and benefits package, including relocation. For prompt and confidential consideration, please forward your résumé to: **Department JK/JH, American Cyanamid Company, Agricultural Research Center, P.O. Box 400, Princeton, NJ 08543-0400.** *We are an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS

NIH-funded **POSTDOCTORAL POSITIONS** available in two related areas: 1) Protein oxidation and degradation of modified proteins by proteasome, and 2) Regulation of proteasome gene expression in response to oxidative stress. Both positions require strong training and background in modern methods of Biochemistry and Molecular Biology. You will join a laboratory group of some 16 researchers involved in the above areas, but will have your own project. Our College has great interdisciplinary strength in the areas of oxidative stress, protein degradation, and regulation of gene expression, and offers an excellent environment and facilities. Send curriculum vitae and the names of three references to: **Prof. Kelvin J. A. Davies, Chairman, Department of Biochemistry & Molecular Biology, The Albany Medical College, Albany, NY 12208.** FAX: 518-262-5689.

POSTDOCTORAL POSITION available immediately to study molecular regulation of extracellular matrix synthesis and degradation in human glomerular mesangial cells. Well-funded lab group emphasizes open interaction and sharing of ideas. Training in cell and molecular biology is essential (less than four years from Ph.D.); experience with mechanisms of cell activation or regulation of gene expression desirable. Send curriculum vitae and names of three references to: **William Schnaper, M.D., Northwestern University Medical School, PEDS W-140, 303 East Chicago Avenue, Chicago, IL 60611-3008.** Telephone: 312-503-1180; FAX: 312-503-1181; Email: hws124@nwu.edu. *Northwestern University is an Equal Opportunity/Affirmative Action Employer.*

CRYPTOSPORIDIUM CELL BIOLOGY

POSTDOCTORAL POSITION available September 1995, NIH-funded, to study host alterations during infection. We study pathogens such as *C. parvum*, *Shigella*, and *E. coli* O157:H7, and are comprised of D.V.M., M.D., and Ph.D. scientists at the Tufts University School of Veterinary Medicine in Grafton, west of Boston. Doctorate and U.S. citizenship or employment eligibility required. Send curriculum vitae with three references to: **Dr. Jeffrey Griffiths, Department of Comparative Medicine, TUSVM, 200 Westboro Road, Grafton, MA 01536.** FAX: 508-839-7977; Email: jgriff2@opal.tufts.edu.

POSITIONS OPEN

POSTDOCTORAL POSITIONS Mayo Clinic and Graduate School

Applications are invited for study of structure and function of molecules related to mechanisms of neurodegeneration. Three positions available immediately: 1) NMR/molecular modeling of trinucleotide repeat DNA (**Gacy et al., Cell**, 81:533, 1995); 2) Nitric Oxide biochemist/molecular biologist; and 3) Molecular biologist interested in either DNA replication, expansion or neurodegeneration.

The focus of the research is understanding the mechanism of neurodegeneration in disease related to trinucleotide expansion and/or oxidative damage. We are using a variety of biochemical, biophysical, cellular and molecular approaches to identify mechanism. General interest in neurobiology is essential. Mayo Foundation is a world-class research institute with medical school and graduate school. Excellent basic research and facilities. Excellent salaries and benefits for qualified individuals. Interested parties should send curriculum vitae and three letters of recommendation to: **Dr. Cynthia T. McMurray, Department of Pharmacology, Mayo Foundation, Rochester, MN 55905.** Email: mcmurray@mayo.edu.

Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Employer.

POSTDOCTORAL POSITION—Postdoctoral position available immediately to study the regulation of DNA repair and recombination genes in response to DNA damage and during competence development in *Bacillus subtilis*. Experience in protein biochemistry and molecular biology preferred. Candidates should send curriculum vitae and three references to: **Dr. Charles M. Lovett, Department of Chemistry, Williams College, Williamstown, MA 01267.** Email: clovett@williams.edu. *Williams College is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to investigate mechanisms regulating cellular proliferation. Specific areas of study include 1) signaling through the transforming growth factor beta receptors; and 2) cell cycle control of AIDS-related eukaryotic pathogens. Send curriculum vitae and names of three references to: **Edward B. Leof, Ph.D., Guggenheim 642C, Mayo Clinic, Rochester, MN 55905.** Telephone: 507-284-5717; FAX: 507-284-4521; Email: leof@mayo.edu. *Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Employer.*

POSTDOCTORAL POSITION available to study function and mechanism of transformation of the *lbc* oncogene which is a multidomain regulator of the small GTP binding protein Rho. The position requires cell/molecular biology or biochemistry experience. Candidates should send curriculum vitae to: **Dr. D. Toksoz, Department of Physiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.** Telephone: 617-636-6719; Email: DToksoz@infonet.tufts.edu. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH position available immediately to study the molecular basis for HIV infection of monocyte-macrophage cells and/or HIV-macrophage-neural cell interactions. Strong background in molecular biology including PCR and/or retrovirus biology is preferred. Submit letter, curriculum vitae and three references to: **Dr. Ronald Collman, 522 Johnson Pavilion, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6060.** FAX: 215-662-2947; Email: collmanr@mail.med.upenn.edu.

Cell and Molecular Biologist and Cardiovascular Physiologist: **PRE- and POSTDOCTORAL** positions available. Positions are on an NIH training grant. U.S. citizenship or proof of permanent residency required. Send curriculum vitae, references, and correspondence to: **Tadashi Inagami, Ph.D., Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, TN 37232-0146.** *Vanderbilt is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION: Available immediately, to work on physiology and anatomy of dorsal horn cells, in studies of somatopy, plasticity, and sensory processing. Send curriculum vitae, description of research interests and plans, and list of three references to: **Paul Brown, Physiology Department, Health Sciences Center, West Virginia University, Morgantown, WV 26506.** *Equal Opportunity Employer.*

Geneticist-In-Chief

DEPARTMENT OF GENETICS

The Hospital for Sick Children, affiliated with the University of Toronto, is Canada's largest paediatric medical centre, with 17,000 admissions and 300,000 ambulatory visits per year. Guided by a strategic plan committed to the advancement of education and research, the Hospital's clinical activities are increasingly focused on tertiary and quaternary care. The Hospital for Sick Children is seeking a Geneticist-In-Chief to head an internationally recognized Department of Genetics. We seek a physician or scientist with a proven leadership record. The successful candidate will provide leadership to a diverse department which includes research laboratories, diagnostic laboratories and clinical genetics responsibilities. The candidate must be eligible for an Appointment as Associate or Full Professor in the Department of Medical Genetics, University of Toronto. We seek a dynamic innovator of senior academic stature to lead the Department into the 21st century. As one of the leading academic paediatric institutions in the world, The Hospital for Sick Children and the Research Institute are committed to the advancement of knowledge through research and education, and to the provision of excellent clinical care.

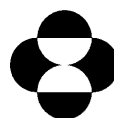
Interested candidates should forward their curriculum vitae, by October 13, 1995, to: **Ms. Christine Welland, Director of Medical Affairs, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8. Fax: (416) 813-7369.** In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada.



THE HOSPITAL
FOR SICK
CHILDREN



University of Toronto.



Merck

Your Success is Here.

Innovative management style, social responsibility, workforce diversity, and environmental concern are the hallmarks of our company and the reasons that we have become the world leader in health care. Those who choose a career with us, will join the best, most creative minds in the pharmaceutical industry. Together they will strive to realize Merck's corporate mission which is to provide society with superior, innovative products that improve and protect human and animal health.

At Merck, you will find many routes to success and many helping hands along the way. If you would like to join our very special company, please write to: Manager, Human Resources, Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey 07065. RY80-A3

We are an Equal Opportunity Employer Hiring on the basis of talent.

ENGINEERING - Biochemical (BS/MS/PhD). Chemical (BS/MS/PhD). Civil (BS/MS/PhD). Electrical (BS/MS/PhD). Environmental (BS/MS/PhD). Industrial (BS/MS/PhD). Mechanical (BS/MS/PhD). **SCIENCE** - Biological Sciences (BS/MS/PhD). Biochemistry (BS/MS/PhD). Chemistry (BS/MS/PhD). Information Systems (BS/MS/PhD). Medicine (MD/MD/MBA). Pharmacology (BS/MS/PhD). Veterinary Medicine (DVM).

Positions Available

POSTDOCTORAL FELLOWS COLUMBIA UNIVERSITY INSTITUTE OF HUMAN NUTRITION

Applications for Postdoctoral Fellowships in the Institute of Human Nutrition of Columbia University are available immediately. Specific areas of research are:

Blaner, William S., Ph.D.,
Retinoids and vitamin A metabolism.

Basch, Charles E., Ph.D.,
Public health intervention

Brandt-Rauf, Paul, M.D., Ph.D.,
Molecular carcinogenesis

Deckelbaum, Richard J., M.D.,
Lipoprotein-receptor-cell interaction;
lipid emulsion metabolism; molecular
genetics of lipid metabolism.

Erlanger, Bernard F., Ph.D.,
Biologically significant receptors.

Field, Michael, M.D.,
Intestinal ion transport mechanisms.

Gershon, Michael D., M.D.,
Enteric nervous system.

Ginsberg, Henry N., M.D.,
Regulation of plasma lipoprotein
metabolism; regulation of apoprotein B
secretion.

Goldberg, Ira J., M.D.,
Lipoprotein metabolism, lipolytic enzymes.

Gottesman, Maxwell E., M.D.,
Gene regulation; cancer; thyroid
physiology.

Graziano, Joseph H., Ph.D.,
Mineral metabolism and toxicology.

Heysmsfeld, Steven B., M.D.,

Body composition and energy
expenditures.

Kissileff, Harry R., Ph.D.,
Psychology of eating disorders.

Perera, Frederica, Dr.P.H.,
Molecular epidemiology.

Pt-Sunyer, F. Xavier, M.D.,
Obesity, diabetes mellitus, food intake
regulation.

Schachter, David, M.D.,
Calcium metabolism.

Shea, Steven, M.D.,
Nutritional epidemiology.

Stern, David M., M.D.,
Vascular cell biology.

Tabas, Ira, M.D., Ph.D.,
Intracellular cholesterol esterification and
lipoprotein endocytic pathways in
macrophages.

Tall, Alan R., M.D.,
Plasma lipoprotein metabolism; regulation
of gene expression; molecular nutrition.

Talmage, David A., Ph.D.,
Retinoids and their role in regulating signal
transduction pathways.

Weinstein, I. Bernard, M.D.,
Molecular mechanisms of carcinogenesis.

U.S. citizens or permanent residents who wish to receive advanced training in any of these areas of nutrition are encouraged to apply. Minority and women applicants are especially encouraged to apply. Applicants should send curriculum vitae to: Dr. David Talmage, Institute of Human Nutrition, Columbia University, 630 West 168th Street, PH 1512, New York, NY 10032. (212) 305-4808, Fax: (212) 305-3079.

Columbia University is an affirmative action/equal opportunity employer.



STONY BROOK
STATE UNIVERSITY OF NEW YORK

Faculty Position Infectious Diseases/Microbial Pathogenesis

The Department of Molecular Genetics and Microbiology in the School of Medicine at SUNY at Stony Brook invites applications for a tenure track FACULTY position at the ASSISTANT or ASSOCIATE level in the field of Infectious Diseases/Microbial Pathogenesis. Applicants must hold a Ph.D. or an MD/Ph.D. degree(s) and have at least two years of postdoctoral experience or primary research focus in basic biomedical research using molecular biology techniques. The successful candidate will be expected to establish an extramurally funded independent research program, direct graduate students, and participate in department teaching responsibilities. The department provides a highly interactive scientific community, well-supported by core facilities and training programs. Collaborative interactions with School of Medicine faculty will be encouraged. Competitive salary and start-up package are available. Applicants should submit a curriculum vitae, brief description of research interests and names and FAX numbers of three references to: Chair of Search Committee, Dr. Carol Carter, Department of Molecular Genetics and Microbiology, University at Stony Brook, Stony Brook, NY 11794-5222. Women and members of under-represented minorities are encouraged to apply.

SUNY at Stony Brook is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

GEORGIA INSTITUTE OF TECHNOLOGY Institute of Bioengineering and Bioscience

A **POSTDOCTORAL POSITION** is available for studies in genetic engineering cells for cardiovascular and secretory bioartificial tissue constructs. Research will focus on generating continuous cell lines with desirable growth, morphological, and response, including secretory, characteristics. Candidates should have an excellent background in molecular biology, interest in tissue engineering, and be willing to work in an interdisciplinary environment and interact with both engineers and life scientists. Please send curriculum vitae and names, addresses, and telephone numbers of three references to: **Professor R. M. Nerem, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0405.** *The Georgia Institute of Technology is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION TO STUDY MOLECULAR BIOLOGY OF p53

Applications are invited from persons with keen interest in understanding the molecular biology of the tumor suppressor p53. Current focus in the laboratory is understanding the involvement of p53 in transcription and oncogenesis. Individuals with expertise in recombinant DNA technology and protein purification are especially encouraged to apply; send complete curriculum vitae and names of three references to: **Sumitra Deb, Ph.D., Department of Microbiology, University of Texas Health Science Center, 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 available immediately for NIH-funded study of growth factor regulation of intestinal epithelial cell growth and function. Current research focuses upon regulation of oxidant metabolism, cytokine secretion and antigen presentation, and how these processes are altered in chronic inflammatory diseases. Applicants should have a strong background in cellular and molecular biology. Send curriculum vitae, names of three references and a brief summary of research experience to: **Dr. Paul Finch, Derald H. Ruttenberg Cancer Center, Box 1130, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** FAX: 212-987-2240. *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOW. Protein Crystallography. Two positions available immediately to study (1) protein inhibitors of serine proteases, and (2) structural biology and chemistry of zinc metalloenzymes relevant to the design of metal ion biosensors. Background in biochemistry and molecular biology useful for the first position, background in chemistry and biochemistry useful for the second position. Interested individuals should send curriculum vitae plus the names of three references to: **Professor David W. Christianson, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available to study genes that determine the yeast replicative life span, their human homologs and age-responsive promoter elements (*Genetica*, 91:35, 1993; *J. Biol. Chem.*, 269:15451, 1994; *J. Biol. Chem.*, 269:18638, 1994). Experience in molecular techniques essential and in yeast genetics helpful. Send curriculum vitae with bibliography and names, telephone and fax numbers of three references to: **Dr. S. Michal Jazwinski, Department of Biochemistry and Molecular Biology, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, LA 70112.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH—Molecular Pharmacologist. Three-year position available August 1, 1995, for an individual to carry out molecular studies in the field of immunoneuropharmacology. Candidates must have a Ph.D. or equivalent, and expertise in molecular cloning, DNA sequencing, and *in situ* hybridization. Knowledge of neuronal-glia interactions a plus. Competitive salary and benefits package. Send résumé to: **Dr. Chun C. Chao, Minneapolis Medical Research Foundation (MMRF) by FAX: 612-337-7372, or mail: 914 South 8th Street, D-3, Minneapolis, MN 55404.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS MOLECULAR GENETICS OF FOLATE TRANSPORT

Albert Einstein College of Medicine Cancer Center

Folates are critical to the synthesis of nucleic acids and proteins and to methylation reactions. Folate deficiency is associated with birth defects and is now implicated in carcinogenic events. New antineoplastic agents are currently being developed and tested that achieve their pharmacologic action by the direct inhibition of folate utilization.

Training is focused on mechanisms of regulation of transport and metabolism of folates and antifolates at the molecular level. Genes for the major folate transporters have been cloned and selectively expressed in this laboratory. Training is within the context of a collaborating group of faculty at the Albert Einstein College of Medicine (AECOM) Cancer Center. Trainees are introduced to concepts in structure-based drug design in the center's NMR, X-ray crystallography and molecular modeling facilities and can develop expertise in a full range of other cancer center-based technologies that include among others, gene knock out, transgenics, ultrastructural and other advanced microscopy facilities.

AECOM is located in a residential area adjacent to Westchester County and the Long Island Sound. Starting stipends are commensurate with living costs in the New York area. Contact: **Dr. I. David Goldman, Office of the Director, AECOM Cancer Center, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** *AECOM is an Equal Opportunity Employer.*

PRE- AND POSTDOCTORAL TRAINING Baylor College of Medicine Houston, Texas

The Department of Molecular Physiology and Biophysics program at Baylor College of Medicine offers both **PRE- and POSTDOCTORAL TRAINING**, in the areas of DNA structure, ion channel and membrane transporter structure and function, intracellular signaling mechanisms, and pulmonary pharmacology to the study of problems of physiological importance. The Department utilizes a multidisciplinary approach including techniques of electrophysiology, NMR, cryoelectron microscopy, protein biochemistry, fluorescence microscopy and molecular biology. To apply for a position in this highly interactive environment please send curriculum vitae and names of three references to: **Susan L. Hamilton, Ph.D., Training Program Director, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030.** FAX: 713-798-3475.

BLAUSTEIN POSTDOCTORAL FELLOWSHIP The Jacob Blaustein International Center for Desert Studies

A **TWO-YEAR FELLOWSHIP**, to be taken up on October 1, 1996, is available for basic or applied research in physical, life or social sciences in arid zones. Deadline for application is December 31, 1995. A decision will be announced by February 15, 1996. Please send curriculum vitae, letter describing research interests, and have three letters of reference forwarded to: **Prof. Joseph Gale, The Jacob Blaustein Institute for Desert Research, Ben Gurion University of the Negev, Sede Boker Campus, 84990 Israel.** FAX: 972 (7) 555-058.

POSTDOCTORAL POSITION in Gene Therapy. A position is available for a molecular virologist to develop a herpes simplex type 1 vector for gene therapy approaches to treatment of spinal cord injury. Candidate should have experience in molecular virology, tissue culture and molecular cloning and gene expression. Background in neuroscience would be advantageous. To apply send curriculum vitae, selected publications and names of three references to: **Dr. Gregory Dekaban and Dr. Lynne Weaver, Gene Therapy and Molecular Virology Group, The John P. Roberts Research Institute, 100 Perth Drive, P.O. Box 5015, London, Ontario N6A 5K8 Canada.** FAX: 519-663-3789.

POSTDOCTORAL FELLOWSHIP position available immediately to investigate the expression and function of S100 proteins as tumor suppressors in epithelial cancers. Applicants should have Ph.D. and/or M.D. degree with experience in molecular and/or cell biology. Send curriculum vitae and references to: **James T. Elder, M.D., Ph.D., Department of Dermatology and Comprehensive Cancer Center, C560A MSRBII, University of Michigan, Ann Arbor, MI 48109-0672.** *The University of Michigan is an Equal Opportunity Employer.*

POSITIONS OPEN

PREDOCTORAL AND POSTDOCTORAL TRAINEES Biological Basis of Aging and Alzheimer's Disease University of Washington

Applications are invited for participation in genetic, cellular and molecular research supported by an NIH Training Grant, an Alzheimer's Disease Research Center, a program-project on proliferative homeostasis and genetic research projects utilizing various organisms. Graduate sponsorship via an interdisciplinary cellular molecular biology program or individual departments. Apply to: **Dr. George M. Martin, 1959 NE Pacific Avenue, HSB K-543, Pathology 357470, University of Washington, Seattle, WA 98195-7470.**

Equal Opportunity/Affirmative Action Employer.

MULTIDIMENSIONAL NMR SPECTROSCOPY Human Development and Disease

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOWSHIP in NMR Spectroscopy of proteins and nucleic acids available to study biochemical mechanisms of mammalian gene regulation related to human development and cancer. A Ph.D. in chemistry, biophysics, molecular biology or related field is required. This position offers opportunity for interactions with cell and developmental biologists. Experience with multidimensional NMR preferred. Send curriculum vitae, letter of interest, and names of three references to: **Michael A. Weiss, M.D., Ph.D., Center for Molecular Oncology, The University of Chicago, 924 East 57th Street, Room R310, Chicago, IL 60637-5419.** *Affirmative Action/Equal Opportunity Employer.*

DEPARTMENT OF PALEOBIOLOGY NATIONAL MUSEUM OF NATURAL HISTORY SMITHSONIAN INSTITUTION

The Department of Paleobiology invites applications for the position of **RESEARCH PALEONTOLOGIST**. Applicants must have a Ph.D. or equivalent experience with a background in geology, zoology, or both. Seeking candidates with a research specialty in either vertebrate or macro-invertebrate fossils. Preference will be given to those showing evidence of a continuing commitment to a strong and innovative program or independent and collaborative research that uses data from fossil specimens to approach questions of broad paleobiologic significance. In addition to research, duties will include oversight of the expansion and improvement of collections, participation in museum activities such as exhibits and education, and involvement with professional associations and other organizations within the scientific community. This is a Federal Civil Service position; U.S. citizenship is required. Starting salary: \$41,104 to \$57,760 per annum depending on qualifications.

For a complete application package, call: 202-287-3715; request Announcement Number 95-1129R. Applications must be postmarked by October 16, 1995. *Equal Employment Opportunity/Affirmative Action.*

POSTDOCTORAL FELLOWSHIP. Pharmacological modulation of growth-regulatory proteins (oncogene and tumor suppressor gene products) associated with growth arrest and cell death in breast cancer cells. A strong background in molecular biological methods is required. Applicants must be U.S. citizens or permanent residents. Available immediately. Send curriculum vitae to: **Dr. David A. Gewirtz, Department of Medicine, Medical College of Virginia, P.O. Box 980230, Richmond, VA 23298-0230.** FAX: 804-828-8079; Email: gewirtz@gems.vcu.edu.

Electrophysiologist: Position available at Yale University for **POSTDOCTORAL FELLOW** or **RESEARCH ASSOCIATE**, for Ph.D. with experience in electrophysiology, to join multidisciplinary group studying CNS and PNS axons myelinated by transplanted cells, and to examine calcium-mediated axonal injury. Send curriculum vitae and three letters of reference to: **J. D. Kocsis, Ph.D. or Stephen G. Waxman, M.D., Ph.D., Department of Neurology, P.O. Box 208018, New Haven, CT 06520-8018.** *Yale University is an Affirmative Action/Equal Opportunity Employer.*

Tenure-Track And Postdoctoral Opportunities.

The following research training opportunities are currently available at the National Institutes of Health.

Tenure-Track Position Assistant Professor Equivalent

Molecular Mechanisms of Respiratory Diseases Paul Nettesheim, MD

A position is available to develop an independent research program, supported by intramural funds, in cellular and molecular mechanisms of respiratory biology and diseases. Extensive postdoctoral experience in molecular biology, developmental biology, signal transduction or biochemical mechanisms of inflammation is required. A two-page statement of research interests and goals should be submitted in addition to three letters of recommendation. Laboratory of Pulmonary Pathobiology (OE-92), NIEHS, P.O. Box 12233, MD D2-01, Research Triangle Park, NC 27709.

Postdoctoral Positions

Basic Aspects of Gene Therapy Jeff L. Miller, MD

A position is available to join a laboratory investigating molecular, biochemical and biophysical aspects of transferring functional genes into cells. Current studies involve the regulated expression of globin genes and glycosylphosphatidylinositol (GPI) anchored cellular receptors using adeno-associated virus (AAV) vectors. A strong background in molecular genetics, membrane biochemistry, or immunology is required. Laboratory of Chemical Biology (OE-92), NIDDK, Building 10, Room 9N307, 10 CENTER DR MSC 1822, BETHESDA MD 20892-1822.

GTPases and the Actin Cytoskeleton Julie G. Donaldson, PhD

A position is available to study the role of the ARF6 GTP binding protein in regulating cell morphology and the actin cytoskeleton. Combined biochemical, molecular and cellular approaches will be used to identify regulators of and effector functions for the ARF6 protein in mammalian cells. Candidates should have less than five years of postdoctoral experience. Laboratory of Cell Biology (OE-92), NHLBI, Building 3, Room B1-22, CENTER DRIVE MSC 0301, BETHESDA MD 20892-0301.

Ion Channel Physiology and Modulation Jerrel L. Yakel, PhD

Ligand-gated (serotonin 5-HT₃ and glutamate) and voltage gated calcium channels are studied in neurons and cell lines, as well as channels expressed in mammalian cells or *Xenopus oocytes*. Structure-function aspects of these channels are investigated, as well as how intracellular signal transduction pathways modulate the physiological properties of these channels. Applicants must have electrophysiological (preferably patch-clamp) experience and less than five years postdoctoral training. Molecular biological techniques would be a great asset. Laboratory of Cellular and Molecular Pharmacology (OE-92), NIEHS, 19-04, P.O. Box 12233, Research Triangle Park, NC 27709.

Insulin Signal Transduction and Hypertension Michael J. Quon, MD, PhD

Relationships between insulin action, insulin resistance and hypertension are being studied at a molecular level. Differential display and other subtraction cloning methods are being used to identify novel insulin-regulated genes in vascular endothelium that may link insulin signal transduction

pathways to the pathogenesis of hypertension. Strong background in molecular biology and/or cell biology preferred. Applicants must have less than five years of postdoctoral experience. Hypertension Endocrine Branch (OE-92), NHLBI, Building 10, Room 8C-103, 10 CENTER DR MSC 1754, BETHESDA MD 20892-1754.

Neuronal Development Elaine A. Neale, PhD

The role of electrical activity in the development of axon outgrowth, dendrite branching, and synapse formation is under study. Electrically active and quiescent neurons in cell culture are examined using immunohistochemistry, image analysis and electron microscopy. Applicants should have a background in neuronal morphology and cell biology and must have less than five years of postdoctoral experience. Laboratory of Developmental Neurobiology (OE-92), NICHD, Building 49, Room 5A38, 40 CONVENT DR MS 4480, BETHESDA MD 20892-4480.

Regulation and Function of Unconventional Myosins Edward D. Korn, PhD

A position is available to study the molecular mechanisms for regulation of unconventional myosins by covalent modifications and the biological roles of unconventional myosins, with particular emphasis at this time on the myosin I and myosin II families and myosin-specific kinases. Approaches used include molecular biology, biochemistry and enzymology, cell biology and immunochemistry. Applicants with less than five years of postdoctoral experience are preferred. Laboratory of Cell Biology (OE-92), NHLBI, Building 3, Room B1-22, 3 CENTER DR MSC 0301, BETHESDA MD 20892-0301.

Additional Opportunities

The NIHEDNET Bulletin Board **POSTDOC** (fellowship positions) and **TENURE** (tenure track positions) conferences are accessed via a modem (301-402-2221 or 800-358-2221 with parameters set at 7,Even,1) or the Internet using Telnet (wylbur.cu.nih.gov) or the World Wide Web (URL: <telnet://wylbur.cu.nih.gov>). When connected to NIH, key in, **vt100** for terminal emulation, **F5E** for initials, and **AJL1** for account number. To view tenure track positions, **quit** the **POSTDOC** conference and **join** the **TENURE** conference.

An electronic version of the *Postdoctoral Research Fellowship Opportunities* catalog is accessed via the Internet using either the Gopher Information System (gopher.nih.gov) or the World Wide Web (URL: <http://www.nih.gov>). When connected with Gopher, select **Grants and Research Information** and then **NIH Office of Education**. When connected with WWW, select **Grants and Contracts** and then **NIH Office of Education**. If you have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, Phone 301-496-2427, Fax 301-402-0483.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (MD, DO, DDS, DMD 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

Office Of Education

The NIH is an Equal Opportunity Employer

PROGRAM OFFICER: MINE COUNTERMEASURES

The Office of Naval Research (ONR) is seeking a qualified individual to manage sponsored basic/applied research together with exploratory and advanced development programs and projects in the areas of mine countermeasures and associated environmental effects. The sponsored research is conducted principally at U.S. universities and industrial or Federal laboratories. This is a Civil Service position at the GS-14/15 level (\$57,760-\$88,326 plus a 5.45% locality adjustment), depending on individual qualifications.

As Program Officer in mine countermeasures, the incumbent plans, evaluates, directs, and coordinates broad science and technology projects essential to the Navy and Department of Defense. The incumbent will conceive, organize, and direct research and development programs in the broad areas of mine countermeasures and associated environmental effects pertaining to Navy problems and applications. Specific technical and programmatic fields or applications include, but are not limited to: underwater sensors, weapons, and vehicles; explosives and warheads; modeling and simulation; communications technologies; and ocean environmental sciences.

Applicants must have a degree in physics, chemistry, professional engineering, mathematics, or closely allied physical science area relating to mine countermeasures and associated environmental effects and 1 year of specialized experience directly relevant to the program areas described above. Qualifying experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade level in the Federal Service. A Ph.D. and demonstrated research and/or technology development experience is desired.

All applicants have a choice of submitting either a new Optional Application for Federal Employment (OF-612); a resume; or any other written format including the old SF-171 (application for Federal Employment). If you submit a resume or any other written format other than the OF-612 or SF-171, you must include: the announcement number; full name and mailing address; social security number; country of citizenship; veteran's preference; reinstatement eligibility; highest Federal civilian grade held; name and location of your high school, date of diploma or GED; name and location of your college or university, your major, and type and year of any degrees received. Only include work experience directly related to this position. For the work experience section, include the job title, duties and accomplishments, employers, names and addresses, supervisors' names and phone numbers, starting and ending dates, hours per week, salary, and whether we may contact your current supervisor. You should also include any job-related training courses, skills, certificates and licenses, and awards.

Applicants should submit their application and the supplemental forms by the closing date; however, applications postmarked by the closing date will be accepted. Applicants may lose consideration if information necessary to determine minimum qualifications is not submitted. Applicants will not be contacted to determine minimum qualifications. Interested persons should submit their application, supplemental forms, and a list of submitted or presented publications or papers to: **ONR**, Satellite Human Resources Office, Attn.: Announcement #95-36 (SCI), 800 North Quincy Street, Arlington, VA 22217-5660. Applications will be accepted through 17 August 1995 and should be received by that date. **Applicants are requested to complete the appropriate supplemental forms.** For information about this vacancy and to request a copy of the vacancy announcement and supplemental forms, applicants may contact Val Mouzon at 703-696-4163 or Angelica Ashby, 703-696-4449, or our TDD (Telecommunications Device for the Deaf) number, 703-696-2681. For technical information concerning this vacancy, call Doug Todoroff at 703-696-0518.

U.S. CITIZENSHIP REQUIRED AN EQUAL OPPORTUNITY EMPLOYER

Founding Director Cardiovascular Biology Center

The Mount Sinai School of Medicine is searching for a founding Director of its new Cardiovascular Biology Center, which will be housed in a new research building. The Center Director will be responsible for building on the existing research strengths in cardiovascular biology

by recruiting additional outstanding, multidisciplinary, interactive scientists committed to basic research on cardiovascular disease. The Cardiovascular Biology Center is complemented by the Cardiovascular Institute, a multidisciplinary program devoted to clinical care and investigation of cardiovascular disease. To optimize the integration of all of the basic

Mount
Sinai

and clinical cardiovascular research and clinical care throughout the Medical Center, Dr. Valentin Fuster, Chief of the Division of Cardiology and Director of the Cardiovascular Institute, will serve as Associate Director of the Cardiovascular Biology Center. The Mount Sinai Medical Center is located on the Upper East Side of Manhattan, adjacent to Central Park. Please forward C.V. and three references to: **Barry S. Coller, M.D., Chair, Dept. of Medicine, The Mount Sinai Medical Center, One Gustave L. Levy Place, Box 1118 (SCI), New York, NY 10029-6574.** An equal opportunity employer.

The Mount Sinai Medical Center of New York

BE PART OF THE NEW VA ASSOCIATE CHIEF MEDICAL DIRECTOR FOR RESEARCH AND DEVELOPMENT

The Department of Veterans Affairs (VA) invites applications for the position of Associate Chief Medical Director for Research and Development. The Office of Research and Development currently has an appropriated budget of approximately \$250 million and supports biomedical, health services, and rehabilitation research of more than 2,500 VA scientists, more than 70 percent of whom are physicians. In addition, VA scientists receive more than \$274 million in research support from extra-VA sources, such as the National Institutes of Health.

VA's research program is strongly committed to support of patient-oriented research across the entire spectrum from basic science to clinical applications of new knowledge. The incumbent is responsible for policy development, management of peer review of all investigator-initiated research studies and budget formulation and distribution. He/she will have overall responsibility for the managerial and scientific aspects for a program of medical care, prosthetic, rehabilitation and health services research of approximately \$900 million. The individual selected will have a critical role in the organizational restructuring of this program. To qualify, you must have both strong scientific and managerial backgrounds, and hold an M.D. or earned Ph.D. Salary is \$108,000 for non-clinicians, and \$122,759 to \$173,259 for physicians and dentists.

If you are qualified, you are invited to send a curriculum vitae by September 8, 1995 to: Management Support Office (163), 810 Vermont Avenue, N.W., Washington, DC 20420. For further information, call (202) 565-7616. *The Department of Veterans Affairs is an Equal Opportunity Employer.*

HERPES VIROLOGIST

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, is seeking an investigator for our Molecular Virology and Host Defense Department. This department works on projects which encompass basic and applied research on many aspects of virology and immunology of infectious diseases including immunomodulators, hemoregulatory cytokines, stromal cell biology, viral pathogenesis and the discovery of novel anti-viral compounds.

In conjunction with other scientists, the selected candidate will plan, implement and supervise research aimed at the discovery, evaluation and development of novel therapeutic anti-viral agents for herpes viruses. The candidate will apply virological, molecular, biochemical skills to identify viral molecular targets, explore mechanisms of anti-viral drug action and select lead compounds as the virologist of a multi-discipline team. Results of this work will be presented at scientific meetings.

Qualified candidates will have a Ph.D. in Virology, a minimum of 3 to 5 years' postdoctoral experience in herpes virology and an excellent record of scientific achievement as evident from publications, patents, symposia and presentations. Supervisory experience, excellent communication skills, and the ability to work effectively with individuals of varied backgrounds and disciplines are required.

Based in our modern research facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation/benefits/relocation package, as well as a stimulating work environment. For confidential consideration, please send CV with salary requirements to: SmithKline Beecham Pharmaceuticals, Job # L0233, PO Box 2646, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

ASSISTANT PROFESSOR CELL OR MOLECULAR BIOLOGY



**Division of Plastic Surgery
Northwestern University Medical School**

Northwestern University Medical School seeks a full-time, non-tenure eligible faculty member to join a laboratory actively investigating wound healing. The appointment will be at the rank of Assistant Professor in the Department of Surgery with a joint appointment in the Department of Cell, Molecular and Structural Biology, and the desired start date is the fall of 1995. Applicants should have research interests in the basic cellular and molecular mechanisms of wound formation and wound repair. The laboratory is particularly interested in the signal transduction pathways which may be altered in aged and/or hypoxic cells. Applicants must hold a Ph.Ds and have research experience in a related area. The successful applicant would be expected to integrate work with the wound healing group and subsequently develop an independent research program. Funding will be available for a period of three years. Hiring is contingent upon eligibility to work in the United States.

Candidates should submit a curriculum vitae a brief statement of research interests and future plans, copies of three recent publications, and three professional references to:

Thomas A. Mustoe, M.D.
Professor of Surgery
Division of Plastic and Reconstructive Surgery
707 N. Fairbanks Court, Suite 811
Chicago, IL 60611

*Northwestern University is an Affirmative Action /
Equal Opportunity employer.*

Director, Cooperative Extension Service and Associate Dean, College of Agriculture University of Wyoming

Director's responsibilities include program development, evaluation, prioritization and implementation; budget development; commitment to excellence in outreach. Substantial experience in strategic planning, budget development and management and personnel administration is necessary.

A master's degree in a relevant subject matter area is required; a doctorate is preferred. We are seeking an individual who is committed to the CES mission and innovative in implementing a university-wide cooperative approach to outreach education.

Complete applications must be postmarked by October 1, 1995. Contact Associate Provost Judy Powell, P. O. Box 3302, University of Wyoming, Laramie, WY 82071-3302 for complete position announcement and additional information. Phone: 307-766-3006, Fax: 307-766-2606, E-mail: jpowell@uwyo.edu

*The University of Wyoming is an
equal opportunity/affirmative action in-
stitution.*

Procter & Gamble

CELL BIOLOGIST

The Procter & Gamble Company has an immediate opening for a Ph.D. scientist to work at our Miami Valley Laboratories in Cincinnati, Ohio.

- The successful candidate will use cell and tissue culture techniques to investigate cell-cell signaling events, determine the mechanism of action of drugs, and develop screening assays. Experience with stem cell isolation and culture, and immunological and molecular methods is highly desirable. Applicants should have a Ph.D. in cell biology or related discipline and 2-4 years of postdoctoral experience.

Procter & Gamble is a world leader in the research, development, manufacture, and marketing of a wide variety of consumer products in health and beauty care, cosmetics and fragrances, pharmaceuticals, food and beverage, laundry and cleaning, and paper products. Annual worldwide sales exceed \$30 billion and our annual R&D investment is over \$1 billion. P&G offers a competitive salary and benefits package, placing us among the top 5% of U.S. firms.

To apply for this opening or to be considered for future opportunities, send your resume suitable for scanning into our database (i.e., clean/clear, no graphics, and preferably unfolded) along with a letter of introduction and list of publications to:

**Dr. J.I. Shulman • The Procter & Gamble Company
R&PD Technical Recruiting • Dept. MEB2
P.O. Box 538707 • Cincinnati, Ohio 45253-8707**

*No agency referrals, please.
An Equal Opportunity Employer*



**Faculty Positions in Immunology
University of Pennsylvania School of Medicine
Institute for Human Gene Therapy**

We invite applications for Assistant Professor level tenure-track faculty positions at the University of Pennsylvania School of Medicine. The successful applicant will be a member of the Institute for Human Gene Therapy which emphasizes several primary research areas such as immunology, stem cell biology, cancer biology, genetics, and ion transport. This individual will be appointed to a faculty position in either a basic science or clinical department, and should have the ability to develop an independent research initiative within our immunology program, a major basic science focus of the Institute. Areas of particular interest include lymphoid development and activation, tolerance induction, programmed cell death, and cytokine gene regulation.

Applicants must have either a Ph.D. or M.D. degree and show exceptional promise of establishing a vigorous, independent research program in an academic setting. A letter, C.V. and a statement of research interests should be addressed to:

**James M. Wilson, M.D., Ph.D.
Director, Institute for Human Gene Therapy
University of Pennsylvania Medical Center
3400 Spruce Street (M6. 40 Maloney)
Philadelphia, PA 19104-4283**

Equal Opportunity/Affirmative Action Employer.
We encourage minority and women candidates.

DEAN

Tufts University School of Veterinary Medicine

Tufts University seeks a dynamic Dean for its School of Veterinary Medicine. Just sixteen years old, the School has already distinguished itself with innovative programs in biotechnology, wildlife medicine, equine sports medicine, international veterinary medicine, ethics and values, oncology, infectious disease, animal behavior, and medical imaging. Tufts has emerged as one of the most selective veterinary schools in the U.S., with the highest number of applicants per space for the most recent year's entering class.

The next Dean must have the D.V.M. or equivalent, an entrepreneurial bent, significant administrative experience, fundraising achievement or potential, and a broad understanding of the social setting of modern veterinary medicine. Also among his or her achievements will be knowledge of current issues in veterinary education, a distinguished record of scholarly work, and an understanding of biotechnology and the biotechnology industry.

Tufts University, established in 1852, also operates distinguished schools of medicine and dental medicine, a graduate school of nutrition, and a nutrition research center, as well as a school of law and diplomacy and the colleges of arts and sciences, in greater Boston. The veterinary school's programs are based on a 640-acre campus in a pristine New England setting in North Grafton, Massachusetts, thirty miles west of Boston, and also on the Health Sciences Campus in Boston.

An extremely attractive compensation package, and the possibility of an endowed chair, accompany this position.

Applications and nominations should be sent to:

**Provost/Senior Vice President Sol Gittleman
c/o TUSVM
200 Westboro Road
N. Grafton, MA 01536**

The position will be filled when the appropriate individual is identified.

Tufts University is an AA/EO employer. Applications from women and minority candidates are especially encouraged.



Center for Structural Biology

FACULTY POSITIONS: NUCLEAR MAGNETIC RESONANCE

The Center for Structural Biology of the College of Medicine, University of Florida currently has an opening for a faculty member conducting innovative research emphasizing nuclear magnetic resonance. The Center is associated with the National High Magnetic Field Laboratory (NHMFL), which is jointly run by Florida State University, the University of Florida, and the Los Alamos National Lab. The Center is an interdisciplinary program with emphasis on understanding of biological function by determining high-resolution structures of large biological molecules and assemblies, studying cell structure and function, and the morphology and physiology of the whole organism. Within the Center, advanced spectroscopic, diffraction, and imaging techniques (nuclear magnetic resonance, optical microscopy, and electron microscopy; X-ray crystallography is being planned) are used to derive molecular-based information related to cellular, tissue, and organism-level structure and function. The Center houses NMR spectrometers (Varian Unity 300 and Unity 600) used for macromolecular structure determination and microscopy. In addition, Center faculty use prototype magnets and spectrometers located at the NHMFL Tallahassee site, including a wide-bore 600 MHz and a 720 MHz high-resolution spectrometer, with additional magnet systems under development for operation at higher fields.

The Center wishes to recruit a macromolecular high-resolution NMR spectroscopist. Interested persons are invited to apply for this tenure-track faculty position, at any level, with direct association to the National High Magnetic Field Laboratory. Applicants at the assistant professor level need extensive experience with NMR at the post-doctoral or more advanced level with interest in developing and expanding experimental techniques. In addition, applicants at the associate or full professor level need to have an established program with extramural funding. Successful candidates will conduct innovative research emphasizing NMR and will use the facilities of the Center for Structural Biology, with additional support provided through the facilities of the NHMFL. Opportunities exist for collaborative research in areas such as biochemistry, cell biology, pharmacology, or physiology.

Applicants must have a Ph.D. Degree and a minimum 1 year postdoctoral experience. Submit a C.V. with statement of research interests and three letters of reference by September 15, 1995. Anticipated starting date January 1, 1996. Salary commensurate with experience. All correspondence should be sent to Thomas H. Mareci, Ph.D., Director, Center for Structural Biology, College of Medicine, University of Florida, Box 100245, Gainesville, FL 32610-0245. *The University of Florida is an Affirmative Action-Equal Opportunity employer, and applications from minorities and women are strongly encouraged. Gainesville is an attractive University community in North-central Florida with good low-cost housing, quality public schools, and many outdoor activities.*

GLOBAL CAREER OPPORTUNITIES

**Research Professor Position
Hallym University**

Institute of Environment & Life Science, Hallym Academy of Sciences, Hallym University has several research professor positions (assistant professor level) available to conduct biomedical research in an academic environment from October 1995. Candidates should have a Ph.D., M.D., or M.D./Ph.D. with at least 2 years of postdoctoral experience.

Applicants with expertise in Biochemistry (Enzymology), Virology, Cellular Immunology, or Molecular Neurobiology are preferred. In order to apply, applicants should submit a curriculum vitae, a brief description of research experience and plan, official transcripts of undergraduate and graduate school, and two letters of recommendation to; Dr. Woo-Tack Kim, Managing Director, Hallym Academy of Sciences, Hallym University, 1 Okchon-dong, Chunchon, Kangwon-do, 200-702, Korea. Applications should be submitted by August 26, 1995.

국제적인 생명과학연구센터를 지향 하는 한림대학교 한림과학원 부설 환경·생명과학연구소는 응모서류에 의거해서 공정하게 평가, 선발하므로 교수요원 모집에 많이 참가하시기 바랍니다. 교수요원은 계약제로 임용하게 됩니다. (기타문의는 Tel: 82-361-58-1950, Fax: 82-361-241-3422)

THE UNIVERSITY OF THE WEST INDIES

St. Augustine, Trinidad

PROFESSOR/SENIOR
LECTURER IN
BIOCHEMISTRY

Faculty of Medical Sciences

Applications are invited for the above vacancy in Biochemistry for Veterinary, Medical and Dental Schools and Natural Sciences Degree courses.

ANNUAL SALARY RANGES FROM 1995/96:
(MEDICAL) Professor TT\$152,532 - TT\$171,132;
Senior Lecturer - TT\$119,592 - TT\$128,424
TT\$140,124. Plus an Institutional Allowance ranging from 10% to 30% of basic salary depending on post. (£1 = TT\$9.0721; US\$1 = TT\$6.00 approx. All Posts: Regional Allowance 30% of basic salary. Passages, Pension, Housing Allowance, Study, Travel and Book Grants. Applications naming three referees and detailing qualifications and experience should be sent to the Registrar, The University of the West Indies, St Augustine, Trinidad as soon as possible. Further particulars will be sent to all applicants and are also available from the Appointments (44177), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, UK (tel. 0171 387 8572 ext. 206; fax 0171 813 3055; email appts.acu@ucl.ac.uk).



The successful candidate will be given the freedom to develop professionally and individually and to attain mutually agreed goals

Clinical Research Inflammation
Bone & Allergy

Your main task will be the planning and managing of the clinical research component of Intern, Development Projects for new drugs in the IBA area. As a member of Clinical Teams you will contribute substantially to the development of overall strategy and objectives within a project; at the same time you will be responsible for the preparation of Clinical Research documents and manuscripts for publication.

We expect you to have a life science degree and at least two years of experience in the Clinical Research Department of a multinational pharmaceutical company ideally in the field of asthma therapy and/or immunology. Your English should be excellent and you should be familiar with computer software generally used in the office.

Send your application to
Ciba-Geigy Ltd., Att. Mr. S. Jäggi,
Ref. 14540, P.O. Box, CH-4002
Basel

中央研究所 化学部門 研究員募集

ドイツ・バイエル社は海外の研究拠点として、アメリカに次いで今春日本に中央研究所を設立しました。この研究所では、アレルギー及び自己免疫疾患分野を担当。ドイツ・アメリカ等との学術交流が頻繁なため、国際感覚豊かでリーダーシップのとれる優秀な研究者を募集します。

職務内容 1. コンピュータによる薬物デザイン (Molecular Modeling) の研究
2. 医薬品探索のための有機合成化学分野の研究 (プロジェクトリーダー)

応募資格 上記関連分野の研究者で Ph.D 又は同等の知識・経験のある方。
製薬研究所・海外ポスドク経験者歓迎。
日本語・英語必須。30〜35才位迄。

化学・アレルギー・免疫系新卒1996年以降、継続して募集します。
問合せ歓迎。日本語・英語必須。

勤務地 バイエル薬品中央研究所
(関西文化学術研究都市木津南地区/近鉄奈良駅より車10分)

待遇 弊社規定により優遇。借上社宅制度有。入社・面談日応談。

応募書類 履歴書 (日・英)、研究概要 (日・英各 A4 1枚程度) 及び主要論文のコピーを下記宛にお送り下さい。

選考 1次/書類審査 2次/面接他

連絡先 大阪市淀川区宮原3-5-36 新大阪第2森ビル 〒532
バイエル薬品(株)リクルーティング⑤係
担当/野本・藤本 TEL 06-398-1145 (コレクトコールをご利用下さい)



バイエル薬品株式会社

◆弊社は全ての社員及び応募者に公平に対応致します。

SIBIA is expanding its interdisciplinary research and development on therapeutics for diseases of the central nervous system. We have established an impressive record in the development of innovative technologies important to the field of neuroscience and the biopharmaceutical industry. We are now seeking experienced Scientists to increase our drug discovery efforts for the neuropharmaceuticals of the future!

HEAD, MOLECULAR NEUROBIOLOGY LABORATORY

This position requires an established molecular neuroscientist with broad-based experience in the molecular biology of voltage- and/or ligand-gated ion channels. Experience in the use of recombinant DNA techniques to isolate, characterize, and express genes encoding ion channels in mammalian cells is essential. The candidate will be expected to manage and direct an established research laboratory, and must have exceptional oral and written communication skills. Requirements include a Ph.D. in Molecular Biology or Molecular Neuroscience with a minimum of 5-8 years of post-doctoral experience.

SYNTHETIC CHEMISTRY

We are seeking a Ph.D.-level Chemist to join our drug discovery team. Candidates possessing experience in the design of enzyme inhibitors and specifically protease inhibitors, in addition to a strong synthetic chemistry background are preferred. Additional experience in combinatorial chemistry and/or molecular modeling would be desirable. Candidates with 0-5 post-doctoral experience and a strong publication record are encouraged to apply.

BIOCHEMICAL PHARMACOLOGY

The Ph.D. we seek will have 0-5 years of post-doctoral experience in in vivo biochemical/pharmacological analysis of central nervous system-acting drugs. A strong neuroanatomical background is required along with experience in the study of in vivo effects of enzyme inhibitors.

BIOCHEMISTRY/PROTEIN CHEMISTRY

We invite Ph.D.s with 0-5 years of post-doctoral experience in the development of mammalian cell-based immunoassays and their adaptation to high throughput screening to respond. In addition to a strong immunochemical background, experience in mammalian cell culture and protein/peptide analytical techniques would be highly desirable.

Located on San Diego's beautiful La Jolla coastline, SIBIA offers not only a challenging environment in an aesthetic setting, but also a competitive salary and benefits package. Send your C.V. with names of three references to: Lynn Alba, SIBIA, 505 Coast Blvd., South, Suite 300, La Jolla, CA 92037, fax to: (619) 452-9279. EOE.

SIBIA

MICHIGAN STATE UNIVERSITY DEAN, COLLEGE OF NATURAL SCIENCE

Michigan State University invites applications and nominations for the position of Dean of the College of Natural Science. Michigan State University, a premier land grant institution and a member of the Association of American Universities, has a student enrollment of approximately 40,000 and is located in an urban-rural setting adjacent to Lansing, the State capital. The University has 14 colleges plus two academic administrative programs in international studies and urban affairs led by deans.

The College of Natural Science consists of 19 academic units and programs in the physical, biological and mathematical sciences, as well as the MSU/DOE Plant Research Laboratory, Kellogg Biological Laboratory, Center for Fundamental Materials Research, Center for Microbial Ecology, Pesticide Research Center, Center for Electron Optics, and the Center for Integrative Studies. The College provides instruction in the natural sciences for all University undergraduates and offers programs of study leading to the B.A., B.S., M.A., M.S., M.A.T., and Ph.D. degrees. Currently, the college consists of about 350 tenure stream faculty and 5,300 majors, about 80 percent at the undergraduate level and about 20 percent at the graduate level. The Dean is the chief academic officer of the college and reports directly to the Provost.

QUALIFICATIONS

MSU is seeking individuals who have demonstrated strong accomplishment in scientific research, strong leadership in administration and education, effective interpersonal skills and a commitment to excellence in natural science teaching, research and service programs. An earned doctorate in a field related to programs of the college is required. Candidates must meet standards for appointment at the rank of professor (with tenure) in an academic department in the college.

SALARY

Salary is competitive and commensurate with experience and qualifications.

APPLICATIONS/NOMINATIONS

Applications/nominations should be submitted as soon as possible and preferably by October 1, 1995. Applications/nominations submitted later will be given all possible consideration, depending on the status of the search process. Women and minority applications/nominations are encouraged. Handicappers have the right to request and receive reasonable accommodation. Nominations or letter of application with curriculum vitae should be sent to:

Dr. William Deal, Chairperson, Search and Rating Committee
Dean, College of Natural Science
Office of the Provost
Michigan State University
312 Administration Bldg.
East Lansing, MI 48824-1046
Telephone Inquiry : (517) 353-8949
FAX: (517) 353-9334; Email: dealw@pilot.msu.edu

Michigan State University is an Affirmative Action/Equal Opportunity Institution

Principal Scientist Metabolic Diseases

Wyeth-Ayerst Research, a major division of Fortune 130 American Home Products Corporation, has an immediate opportunity for a Principal Scientist in Metabolic Diseases at its pharmaceutical research and development facility in Princeton, New Jersey.

You will focus on the identification of new molecular and cellular targets for pharmacologic intervention in obesity. This will involve interaction and collaboration with other investigators in the Metabolic Diseases group in the development of novel targets and drugs.

Requirements include a strong fundamental knowledge of molecular and cell biology and research experience in obesity, or a closely related and relevant research area. A doctoral degree and post-doctoral research experience in a relevant research area are expected. Knowledge and research experience in diabetes and insulin resistance are pluses.

Wyeth-Ayerst offers competitive salaries and excellent benefits. Please forward resume with cover and salary requirements to: **Wyeth-Ayerst Research, Human Resources, Position #1349, CN 8000, Princeton, NJ 08543-8000.** Or you may fax your resume directly into our centralized Research resume database at (610) 989-4854. Principals only. Equal Opportunity Employer, M/F/D/V.



Leading The Way for a Healthier World



OREGON HEALTH SCIENCES UNIVERSITY
BIOCHEMISTRY & MOLECULAR BIOLOGY

MEMBRANE PROTEINS

The Department of Biochemistry and Molecular Biology at OHSU, School of Medicine, is committed to a period of significant expansion. We are recruiting tenure track faculty at all levels, although our emphasis is on junior colleagues. We wish to recruit scientists whose primary interest is in the characterization of structure-function relations in membrane proteins, using modern techniques of biochemistry and molecular biophysics.

We will offer attractive start-up packages, competitive salaries, and the opportunity to participate in the growth and development of a dynamic and interactive department in a highly desirable location. Faculty will be expected to establish competitive research programs and assist in graduate and medical school teaching. Applicants at the Assistant Professor level should have a Ph.D. with several years of postdoctoral experience. Applications for our first series of appointments should be received by September 30, 1995.

Interested applicants should send a copy of their curriculum vitae, a description of their research plans and interests, and the names of three references to:

Professor Jack H. Kaplan, F.R.S.
Faculty Search (MP)
Department of Biochemistry and Molecular Biology
Oregon Health Sciences University
3181 S.W. Sam Jackson Park Road, L224
Portland, OR 97201-3098

OHSU is an Affirmative Action/Equal Opportunity Employer

Naval Surface Warfare Center Carderock Division

Distinguished Research Physicist (ST-1310-00)

The selectee will set the standard for mature research in the area of advanced polymer materials with specific application to special acoustic coatings, working in the Weapons Materials Department of the Survivability, Structures and Materials Directorate. He/she must have achieved an internationally recognized level of excellence in the area of polymer science. Scientific contributions must include solving significant Navy problems.

Except under extraordinary circumstances, the selectee must have earned a Ph.D.

Salary: \$97,991 to \$113,180

Duty Station: White Oak, Maryland and Carderock, Maryland sites.

For further job information:

Call (301) 227-2880, or send resumes to Code 3210, Carderock Division, Naval Surface Warfare Center, Bethesda, MD 20084-5000.

Applications must be received or postmarked by 11/15/95.



DEAN

School of Natural Resources and Environment The University of Michigan

The University of Michigan invites applications and nominations for the position of Dean of the School of Natural Resources and Environment. This position will be available on July 1, 1996. The Dean is the chief academic and administrative officer of the School and reports directly to the Provost and Executive Vice President for Academic Affairs. The School of Natural Resources and Environment is an interdisciplinary professional school focusing on research, teaching, service and the development of policies and management programs leading to the conservation, protection, and sustainable use of natural resources. The School's activities include instruction at the undergraduate, masters, and doctoral levels, and an active research program. Diverse faculty concentrations include Resource Ecology and Management, Resource Policy and Behavior, and Landscape Architecture. The School is committed to an integrative interdisciplinary approach to problem-solving in active collaboration with related disciplinary departments and professional schools.

The Dean provides leadership in academic program planning, development and evaluation. Qualifications should include an earned doctorate, a distinguished record appropriate for a tenured appointment in the School. The Dean must provide leadership for the School both within and external to the University community as well as for seeking and securing funds from a variety of sources.

Applications and nominations should include a detailed curriculum vita and the names, addresses, and telephone numbers of three references. While applications will be considered until the position is filled, the Committee will begin reviewing applications on October 15, 1995. The University's dedication to excellence is complemented by its commitment to building a culturally diverse academic community. Individuals from underrepresented groups are encouraged to apply.

Nominations and applications should be directed to **Jonathan W. Bulkley, Chair, School of Natural Resources and Environment Dean Search Advisory Committee, The University of Michigan, 3068 Fleming Administration Building, Ann Arbor, MI 48109-1340, Telephone, 313 449-2955, FAX, 313 764-4546.**

A non-discriminatory, affirmative action employer.



OREGON HEALTH SCIENCES UNIVERSITY
BIOCHEMISTRY & MOLECULAR BIOLOGY

MOLECULAR ENZYMOLOGY

The Department of Biochemistry and Molecular Biology at OHSU, School of Medicine, is committed to a period of significant expansion. We are recruiting tenure track faculty at all levels, although our emphasis is on junior colleagues. We wish to recruit biochemists whose primary interest is in investigating the mechanisms of enzyme catalysis employing modern molecular techniques.

We will offer attractive start-up packages, competitive salaries, and the opportunity to participate in the growth and development of a dynamic and interactive department in a highly desirable location. Faculty will be expected to establish competitive research programs and assist in graduate and medical school teaching. Applicants at the Assistant Professor level should have a Ph.D. with several years of postdoctoral experience. Applications for our first series of appointments should be received by September 30, 1995.

Interested applicants should send a copy of their curriculum vitae, a description of their research plans and interests, and the names of three references to:

Professor Jack H. Kaplan, F.R.S.
Faculty Search (ME)
Department of Biochemistry and Molecular Biology
Oregon Health Sciences University
3181 S.W. Sam Jackson Park Road, L224
Portland, OR 97201-3098

OHSU is an Affirmative Action/Equal Opportunity Employer

Emerging Infectious Diseases (EID) Laboratory Training and Research Fellowships CDC - ASTPHLD

Administered by the National Centers for Infectious Disease, NCID/CDC, and the Association of State and Territorial Public Health Laboratory Directors, ASTPHLD. This two-track program (Training and Research) will train qualified candidates to support public health initiatives, and provide opportunities for doctoral level scientists to conduct high priority infectious disease research in local, state or federal (CDC) public health laboratories. Applicants must be U.S. citizens and able to start appointments by January 5, 1996.

Training Fellowship: A one-year program designed for bachelors or masters level scientists, with emphasis on the practical application of technologies, methodologies and practices related to emerging infectious diseases. The training will be customized for each Fellow based upon infectious disease areas of interest, high priority laboratory personnel needs, and host laboratory capabilities. Training will focus on one/two areas such as: vaccine preventable diseases, drug-resistant pathogens, molecular methods, vector-borne or zoonotic diseases, foodborne/waterborne illnesses, sexually transmitted diseases, computer and systems support, and diagnostic testing methods. The annual stipend is \$10,008 (plus health benefits) which may be augmented by the host public health laboratory. **Post-Doctoral Research Fellowship:** A two-year program designed for doctoral level (Ph.D., M.D., D.V.M.) scientists with an emphasis on research or development in infectious diseases. Fellowships will be awarded to conduct applied research or development in areas relevant to public health including: development and evaluation of diagnostic techniques, antimicrobial sensitivity and assessment of mechanisms of resistance, principles and practices of vector or animal control, improved methodologies for environment sampling, testing and evaluation. The annual stipend is \$19,608 to \$32,000 (plus health - benefits). Application Deadline: October 5, 1995.

For further information and application materials contact: EID Laboratory Fellowship Program, ASTPHLD, 1211 Connecticut Avenue, N.W., Suite 608, Washington, D.C. 20036, Phone: 202-822-5227, Fax: 202-887-5098



Department of Dermatology Harvard Medical School

The Department of Dermatology, Harvard Medical School is accepting applications for **clinical and research post-doctoral fellowship positions**, and for **entry level faculty** positions. Basic research fellowship opportunities exist within the Wellman Laboratories of Photomedicine and the Harvard/MGH Cutaneous Biology Research Center at the Massachusetts General Hospital, as well as at our Dermatology Research Laboratories at the Brigham and Women's Hospital.

The Department is a recipient of an NIH Training Grant which provides partial salary support for one, preferably two, years of directed laboratory research. Candidates must identify a mentor within the department. Funds are currently available for July 1, 1996. We will aid interested candidates in identifying mentors for their projects. A letter of inquiry specifying research interests and CV must be received by November 15, 1995.

We also offer **fellowship programs in laser, dermatologic-surgery, and clinical trials**. These programs begin on July 1st of each year, and some require that the applicant has completed training in dermatology.

We are also currently accepting applications for our **Residency Training Program** beginning July 1, 1997. The application deadline for this program is February 15, 1996.

The Department of Dermatology, Harvard Medical School is a joint multi-institutional teaching and training program with cooperative clinical and research activities at the Beth Israel Hospital, Brigham and Women's Hospital, Children's Hospital Medical Ctr., Cambridge Hospital, New England Deaconess Hospital, Massachusetts General Hospital, Dana Farber Cancer Institute, Harvard Community Health Plan, Lahey Clinic, and Brockton/W. Roxbury VA Medical Ctrs.

We are an Equal Opportunity/Affirmative Action Employer. Minorities, women, handicapped, and veterans are encouraged to apply. We are especially interested in receiving applications from underrepresented minorities.

Interested candidates should send a letter of inquiry and CV to: **Howard P. Baden, M.D., Department of Dermatology, Warren 501, Massachusetts General Hospital, 32 Fruit Street, Boston, MA 02114, (617-726-5254).**

FACULTY POSITIONS IN THE CENTER FOR GENE THERAPY TENURE TRACK

The Center for Gene Therapy at Baylor College of Medicine is seeking qualified candidates with Ph.D. or M.D. degrees interested in basic and clinical studies of Gene Therapy. Established scientists and new investigators are invited to apply. Appointments will be made at an academic grade appropriate to the experience of the candidate. The Center wishes to identify scientists capable of pursuing independent study of basic gene transfer technology and vector biology, as well as clinical investigators interested in patient studies of gene therapy efficacy and safety. All areas of Human Gene Therapy will be considered including but not limited to inherited disease, cancer, cardiovascular disorders, neurological disorders, infectious diseases and gene vaccines.

Interested candidates should submit their curriculum vitae and bibliography, a statement of research goals, 1-3 representative publications, and the names of three references to:

John W. Belmont, M.D., Ph.D.
Chair, Faculty Search Committee
Center for Human Gene Therapy
Baylor College of Medicine
Room T826, One Baylor Plaza
Houston, TX 77030
Tel: (713) 798-4634
Fax: (713) 798-5386
belmont@bcm.tmc.edu

Baylor of Medicine is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.

Choosing A Future: Career Opportunities and Academic Options for BS & MS Scientists

Announcing the 3rd Annual BS & MS Scientists Special Advertising Supplement.

For the third consecutive year *Science* will publish a special advertising supplement devoted to BS and MS level scientists. In this year's issue, we will examine this topic in two parts: career opportunities and academic programs.

Full Page Advertisements Receive:

Special Reprint Distributions. Full page ads in the BS/MS section will be included in a special reprint of the advertising section and receive bonus distribution to students at over 70 of the top biology and chemistry programs at U.S. colleges and universities. ♦

Minority Distribution. Your full page ad in the special section reprint will also be distributed to colleges and universities with historically high minority enrollment.

Prime Positioning. Full page advertisements will be placed throughout the career-related special supplement making your ad highly visible to *Science* readers.

Bonus Distribution. Copies of the 25 August BS/MS issue will be distributed at 2 Biotech/Pharmaceutical Job Fairs:

- 22-23 September, La Jolla, CA and
- 29-30 September, Cambridge, MA.

Advertise on the Internet.

All recruitment advertisements in *Science* receive placement on Science JOBNET, *Science* classified advertising on-line. The Science JOBNET address is now listed on the World Wide Web sites of career placement centers at dozens of U.S. colleges and universities. That means students across the U.S. will have access to your on-line recruitment advertisement on Science JOBNET!

To access Science JOBNET:
WWW: <http://WWW.aaas.org>
Gopher: <gopher.aaas.org>

For advertising information, please call Janis Crowley at (212) 496-7704 or fax to (202) 682-0816.

SCIENCE

List of colleges and universities scheduled to participate in the 1995 bonus distribution of the *Science* BS/MS reprint:

Alabama A&M University*
Boston University
Brandeis University
Brigham Young University
Brown University
Caltech
Carnegie Mellon University
Case Western Reserve
Colorado State University
Columbia University
Cornell University
Dartmouth College
Delaware State University*
Duke University
Emory University
Fisk University*
Florida A&M University*
Georgetown University
Grambling College*
Harvard University

Howard University*
Indiana University
Johns Hopkins University
Lehigh University
Mayo Medical School
MIT
Michigan State University*
Morehouse College*
New Mexico State University
New York University
Northeastern University
North Carolina A&T State University
North Carolina Central University
Ohio State University
Penn State University
Princeton University
Purdue University
Rice University
Spelman College*
Stanford University

SUNY, Buffalo
Syracuse University
Texas Tech University
Tufts University
Tuskegee University*
University of Alabama
University of Arkansas*
UC - Berkeley
UC - Davis
UC - Los Angeles
UC - Riverside
UC - San Diego
UC - Santa Barbara
UC - Santa Cruz
University of Chicago
University of Colorado
University of Delaware
University of Houston
University of Illinois
University of Massachusetts

University of Miami
University of Minnesota
University of North Carolina
University of Notre Dame
University of Oregon
University of Pennsylvania
University of Pittsburgh
University of South Carolina
University of Texas at Austin
University of Utah
University of Washington
University of Wisconsin
Vanderbilt University
Washington University
Winston-Salem State University*
Yale University
Yeshiva University

**Advertising Space Reservation
Deadline: August 8, 1995.**

♦ The Nation's top schools for Biological Sciences, various Chemistry disciplines and Clinical Medicine ranked by the Institute for Scientific Information's *Science Watch*, as well as the top 20 schools from *U.S. News & World Report's* Annual America's Best Colleges issue. *Denotes institution with historically high minority enrollment



GENOMETRIX

Bridging Microelectronics and Molecular Biology

Genometrix is a pioneering leader in the development of electronic DNA microchips and associated molecular imaging instrumentation for DNA-based research and diagnostics. Nestled in a forested, affordable master-planned community north of Houston, Genometrix is seeking highly qualified innovative candidates to fill the following positions:

VP/Manufacturing and Engineering

This position requires extensive bioanalytical instrument manufacturing experience for life science and clinical markets; demonstrated proficiency in planning, designing (DFMA), system integration, assembly, testing and certification (ISO and FDA); preferred technological expertise in optical detection and imaging with CCDs, data acquisition, and ink-jet dispensing of reagents. Additional requirements include:

- B.S. or higher in Engineering
- 10+ years experience with proven efficiency in product time-to-market

Senior Electro-Optical Engineer

This position requires demonstrated proficiency in designing and building PC-based optical detection and imaging systems employing CCDs for UV, visible, IR and X-ray imaging. Additional requirements include:

- M.S. or higher degree in Electrical Engineering or Physics
- 10+ years experience with proven innovative contributions

Electronic Technician

This position requires extensive experience in designing, fabricating, testing and troubleshooting PC-driven CCD imaging systems. The candidate must have demonstrated proficiency with data acquisition electronics to include A/Ds, conditioning, timing, multiplexing, and DSP. Additional requirements include:

- 10+ years experience with demonstrated product achievements

Biochemist/Senior Biochemist

These positions required demonstrated proficiency in DNA-based research and diagnostics including sample preparation, oligonucleotide synthesis, fluorescent and chemiluminescent labeling, attachment chemistries, hybridization, probe-based clinical assays, detection systems, and various blotting protocols. Additional requirements include:

- B. S. or higher degree in Biochemistry or equivalent educational background
- 5/10+ years lab experience with demonstrated innovative contributions

Send letter of application and resume to:

GENOMETRIX
3608 Research Forest Dr., Suite B7
The Woodlands, TX 77381

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

ASSISTANT PROFESSORSHIP IN INORGANIC CHEMISTRY

Applicants are invited to apply for an assistant professorship in inorganic chemistry. Applicants should arrange to have three letters of recommendation sent independently and should provide a curriculum vitae, a list of publications and outlines of two future research projects. Applications and supporting materials should be sent no later than 1 November 1995 to Professor Charles M. Lieber, Chairman of the Faculty Search Committee, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138-2902. *Harvard University is an Affirmative Action, Equal Opportunity Employer and welcomes applications from women and minority group members.*

GLOBAL CAREER OPPORTUNITIES



Group leader position at the Biotechnology Centre of Oslo

The Biotechnology Centre of Oslo (BiO) is an institution under the University of Oslo devoted to basic research, teaching and promotion of biotechnology. BiO is located in The Oslo Research Park adjacent to the University campus. BiO normally houses five research groups and core facilities for protein and DNA sequencing as well as oligonucleotide and peptide synthesis, and the Norwegian EMBnet node for bioinformatics. A total population of 80-95 consists of about 30 M.Sc. students, 20-30 Ph.D. students, 5-10 postdoctoral fellows, 5 group leaders and about 10 technical staff.

The University of Oslo now invites applications for a group leader position at BiO for an initial period of 5 years. The salary is in the professorial scale and an adjunct professorship is available pending evaluation by a University committee. Along with the group leader position are available salaries for a post-doctoral fellow, a Ph.D. student and a technician and an allowance for consumables and minor equipment.

The successful candidate will be about 35-40 years old and have an extensive postgraduate research experience in molecular biology/molecular genetics. A preference will be given to candidates with experience/interest in protein chemistry and whose project proposal involves such aspects. Quality of research is the most important concern. An international committee (The Scientific Advisory Group of BiO) will assist in the selection process.

Applications should be submitted in two copies, including a complete curriculum vitae, a list of publications and a project proposal, to Professor Hans Prydz, The Biotechnology Centre of Oslo, Gaustadalléen 21, 0371 Oslo, Norway, before October 16, 1995. Further information is available from Professor Prydz (e-mail: hans.prydz@biotek.uio.no., fax: 47 22694130, phone: 47 22958754)

New from SCIENCE:

JOBNET

Classified Advertising On-line!

JOBNET: A new on-line service listing the best scientific career opportunities and more...Only from SCIENCE! JOBNET offers you an on-line connection to the same comprehensive listing of positions open, meetings and courses that appears in SCIENCE every week. The JOBNET service delivers the most up-to-date science job directory because new listings appear each week.

To Access JOBNET

Gopher: gopher.aaas.org

WWW: <http://www.aaas.org>

Once you enter the AAAS databank, select SCIENCE magazine and then choose JOBNET from the menu.

SCIENCE

If you need help getting to our Gopher, your computer department at your company or institution is the best source for help. Send Internet inquiries regarding JOBNET or accessing the AAAS gopher to: JOBNET@aaas.org

Senior Scientist/ Spectroscopist

Structural characterization of a wide variety of molecules including organic and biological molecules and drug metabolites; responsible for the use, operation and maintenance of analytical equipment including Fisons HPLC-API-mass spectrometer (MS), HP GC-MS, 300 MHz NMR instruments; works on problems of diverse scope and uses expert knowledge of scientific principles and concepts.

Must have Ph.D. degree in Analytical Chemistry in the area of mass spectrometry.

Two years' experience in the development of analytical methodologies, analytical instrumentations, structural characterization of a wide variety of molecules including organic and biological molecules, and spectroscopic techniques including MS, NMR, UV and chromatographic methods required.

Familiarity in operation and maintenance of Fisons HPLC-API-MS, HP GC-MS, 300 MHz NMR. Strong background in organic chemistry.

Hours: 40 Work Hours: 8:30 a.m. - 5:00 p.m.

Salary: \$50,000.00 per year

Reply by submitting two (2) copies of resume to: Case Number #50053, P.O. Box #8968, Boston, MA 02114.

In just over 20 years, we have grown to be the largest Canadian-owned pharmaceutical company with a strong commitment to create an integrated industry in Canada. We are seeking a proven Bioreactor Cell Culture Specialist capable of functioning effectively as a member of a biotechnology research team in Ottawa, and of supporting our vision and global growth.

Research Scientist

The scope of this one-year contract ranges from supervising, designing and conducting bioreactor cell culture studies - including summarizing and interpreting results - to developing technologies related to the growth and evaluation of mammalian cells in culture. This will involve, among other duties, evaluating bioreactor configurations and designing components to ensure cellular growth and viability.

A Ph.D. in a relevant discipline such as Microbiology, Biochemical Engineering, Biochemistry, Immunology or Molecular Biology is assumed, followed by one to five years of industrial application. Your mammalian cell culture experience using various bioreactor configurations is backed by a working knowledge of culture medium component development, scale-up of bench-top, laboratory methods to pilot scale procedures, and the establishment/maintenance of mammalian cell banks. Familiarity with the establishment of SOPs and process specifications and analytical methods required for GMP manufacturing would be invaluable in this position.

We offer a competitive salary and an excellent benefits package. Please forward your resume to: Employment Specialist, Apotex Inc., 150 Signet Drive, Weston, Ontario, M9L 1T9. Fax: (416) 749-5590. No phone calls, please.

Principals only, please.

While we appreciate all the responses we receive, only those candidates under consideration will be contacted.

We are an equal opportunity employer and offer a smoke-free environment.

A APOTEX INC.
CANADA'S PHARMACEUTICAL COMPANY

RECRUITMENT ADVERTISERS

SAVE 25%

Running your recruitment ad once may not be enough. Place the same ad again within the next eight issues and get 25% off your second insertion.

- Get more attention
- Get more value
- Get more applicants

Reach the global scientific community you need to maximize your recruitment efforts. **SCIENCE** does it bigger, better and at greater savings for you.

In the U.S., call
Janis Crowley (212) 496-7704
or fax (202) 682-0816

In Europe, call
Gordon Clark
+44 01223 302 067
or fax +44 1223 576 208

INEX Scientific/Research Opportunities

Inex Pharmaceuticals Corp. is an innovative leader in the development of systems for the targeted delivery of biologically active agents in vivo. This includes the intracellular delivery of antisense oligonucleotides and DNA vectors. Gene therapy is the central focus of the Company. We are seeking highly-motivated research staff at all levels, preferably with industrial experience.

• Director - Gene Therapy

A senior position requiring an accomplished scientific leader to develop gene therapy programs from discovery through completion of preclinical testing. Ph.D. and at least 10 years of research/industrial experience of which at least 5 years must be involved in the field of molecular biology/gene therapy. A strong publication record, excellent communication skills and proven project management abilities are essential. This position will focus on the development of DNA vectors and tissue specific expression of genes. Candidates with experience in vector construction, gene transfer and tissue specific regulation of gene expression are particularly encouraged to apply.

• Research Scientists: In Vivo Models Biopharmaceuticals/Gene Therapy/Intracellular Delivery

As part of our expansion we seek individuals responsible for developing and implementing use of in vivo models capable of evaluating therapeutic potential of delivery systems and their payloads. Scientists appointed will be required to design/recommend programs of experimentation capable of evaluating the company's innovative strategies for treatment of a wide variety of diseases using proprietary transmembrane carrier systems. The successful candidates will have at least 5 years of post-doctoral experience in pre-clinical evaluation of therapeutic agents using in vivo models, preferably in industry, and a background in molecular biology and immunology. Excellent management, interpersonal and communication skills are essential.

Please forward your resume to the: **Manager, Human Resources, Inex Pharmaceuticals Corporation, 1779 West 75th Avenue, Vancouver, B.C. Canada V6P 6P2 or email: yaroshev@inexpharm.com**

First Annual Conference on Recruitment and Retention of Minority Scientists

***Unlocking Opportunities:
Fostering Diversity in the Scientific Workforce
in the Pharmaceutical and Biomedical Industries***

26 - 27 October 1995

This is a unique opportunity to be part of an exciting forum where professionals from industry, government, universities and associations will discuss and share strategies related to the recruitment, retention and professional development of minority scientists.

Sponsored By: The American Association for the Advancement of Science

Location: Washington D.C. (Crystal City Marriott, Arlington, Virginia)

Cost:

- \$395 per person registration fee
- \$340 per person registration for organizations that have more than one person attending.

Price includes full conference, opening cocktail reception, continental breakfast and lunch. (Does not include hotel accommodations*)

Scheduled Speakers: John H. Gibbons, Neal Lane, Ruth L. Kirschstein, Manuel Gomez, Marcellus Grace, Norbert Hill, Jean Jackson-Swopes, Joyce Justus, Shirley Malcom, Clifton A. Poodry, Clay E. Simpson, Jr., Thomas E. Smith, David Wheadon, Luther S. Williams.

For information call: Janis Crowley (212) 496-7704

* A limited number of hotel rooms are available at the conference site. Room reservations should be made directly with the Crystal City Marriott: call (703) 413-5500. Reference the AAAS Conference for the group discount.

An activity of Science Linkages in the Community (SLIC) and supported by a grant from the DeWitt Wallace-Reader's Digest Fund.

SCIENTISTS



Genentech is a pace-setting international biotechnology company that discovers, manufactures, and markets human pharmaceuticals for significant unmet medical needs. We currently have the following opportunities available at our South San Francisco headquarters.

Molecular Biologist

We seek an individual with broad based molecular and biochemical skills. You will join a team developing technology based approaches including DNA database analysis to discover novel protein therapeutics.

This opportunity requires a PhD or MD with at least 3 years' postgraduate experience. To succeed, you will have demonstrated extensive skills in gene cloning and expression, technology development, as well as analysis of growth factors and receptors. Job #LTPG

Immunohistochemistry

Genentech's Department of Pathobiology and Toxicology is seeking a Scientist with a Ph.D or equivalent and an interest in both the basic science and preclinical application of immunohistochemical techniques. The successful candidate will be expected to provide scientific and technical expertise in the discipline of immunohistochemistry to other scientists in both the Research and Development divisions.

You will be responsible for evaluation and utilization of commercially available antibodies and novel monoclonal and polyclonal antibodies developed against newly characterized proteins, complete immunohistochemistry method development and method optimization studies, transference of these methods to relevant labs and providing technical advice to investigators. Candidates should have extensive experience and in-depth theoretical and applied knowledge of immunohistochemistry as well as technical skills in microtomy and cryotomy. Expertise in image analysis and/or morphometry would be a definite plus; excellent communication, organization and problem solving skills are essential. Job #CSND

Genentech offers an excellent salary and benefits package to full time employees that includes fully paid medical/dental/vision coverage, free health club membership, and Company stock purchase opportunities. For immediate consideration, please send your resume indicating appropriate job number to Genentech, Inc., Human Resources Dept., 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

Genentech, Inc.

ASSISTANT PROFESSOR

The Department of Anatomy and Cell Biology, University of Kansas School of Medicine, invites applications from neuroscientists to fill a new **TENURE TRACK** faculty position as an assistant professor. The position includes a competitive package of salary, benefits, laboratory space, and startup funds. The earliest beginning date for the position is June, 1996. Applicants should have a Ph.D. or equivalent degree and 2-5 years of postdoctoral experience in neuroscience. The successful candidate will participate in teaching medical neuroscience and graduate level courses, and will develop an externally-funded, innovative research program in neurobiology. Applications should include a curriculum vitae, a summary of present and future research interests, and the names and addresses of three references. Send applications to **Ronal R. MacGregor, Ph.D., Search Committee Chairman, Department of Anatomy and Cell Biology, University of Kansas Medical Center, 39th Street and Rainbow Boulevard, Kansas City, KS 66160-7400.** *KUMC is an Equal Opportunity Employer.*

ENVIRONMENTAL MICROBIOLOGIST

Tenure track position available beginning August, 1996, for a broadly trained microbiologist. Faculty rank negotiable.

Responsibilities will include teaching non-major courses in Medical Microbiology and Environmental Biology, developing a course in Microbial Ecology, and establishing a research program involving undergraduates.

Ph. D. with a specialization in microbiology and teaching experience required. Candidate must provide evidence of teaching and research effectiveness. Preference will be given to candidates with a research interest in microbial ecology. Slippery Rock University is building a diverse academic community and encourages minorities, women, veterans, and persons with disabilities to apply.

Send letter of application, curriculum vitae, transcripts, a statement of long-term goals, and three (3) letters of recommendation to:

Dr. William R. Sigmund
Search Chairperson
Department of Biology
Slippery Rock University
Slippery Rock, PA 16057

The deadline for receipt of application is **October 1, 1995.**

SLIPPERY ROCK UNIVERSITY IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

SLIPPERY ROCK UNIVERSITY OF PENNSYLVANIA IS A MEMBER OF THE PENNSYLVANIA STATE SYSTEM OF HIGHER EDUCATION.

EH & S Specialists II/III

Starting Salary Between \$42,800-\$58,800/Year

The University of California, Irvine is seeking two EH & S Specialists to develop and implement comprehensive laboratory safety policies and procedures. One position will serve the **College of Medicine (Job #CU220)** and the other, the **School of Physical Sciences (Job #CU221).**

Responsibilities include assisting laboratory personnel with implementing safe operating and hazardous waste minimization procedures, training lab workers, inspecting laboratories, and assisting faculty and staff in implementing school-wide laboratory safety policies and procedures. Requires strong work experience applying the principles of occupational health, safety and environmental protection in an academic laboratory environment, as well as experience with developing and implementing policies and procedures, training/information and record-keeping programs. Effective written and oral communication skills are needed. Advanced degree in a scientific discipline is desirable.

Please request **REQUIRED** application materials for the appropriate Job # by calling (714) 824-4117. Submit completed application materials and resume by 8/11/95 to: **UCI Campus, Human Resources, Irvine, CA 92717-4600. AA/EOE.**

UCI
University of California, Irvine

POSITION FOR A NEUROBIOLOGIST

The Division of Neurology at Hôpital Notre-Dame (affiliated to the Université de Montréal's Faculty of Medicine) has a busy practice in adult neurology, with a strong commitment in graduate and undergraduate teaching, and a growing research program in epilepsy, neuropsychology, multiple sclerosis, dementia, extrapyramidal disorders, stroke and ALS. We are looking for an independent researcher in inflammatory and degenerative disorders of the nervous system.

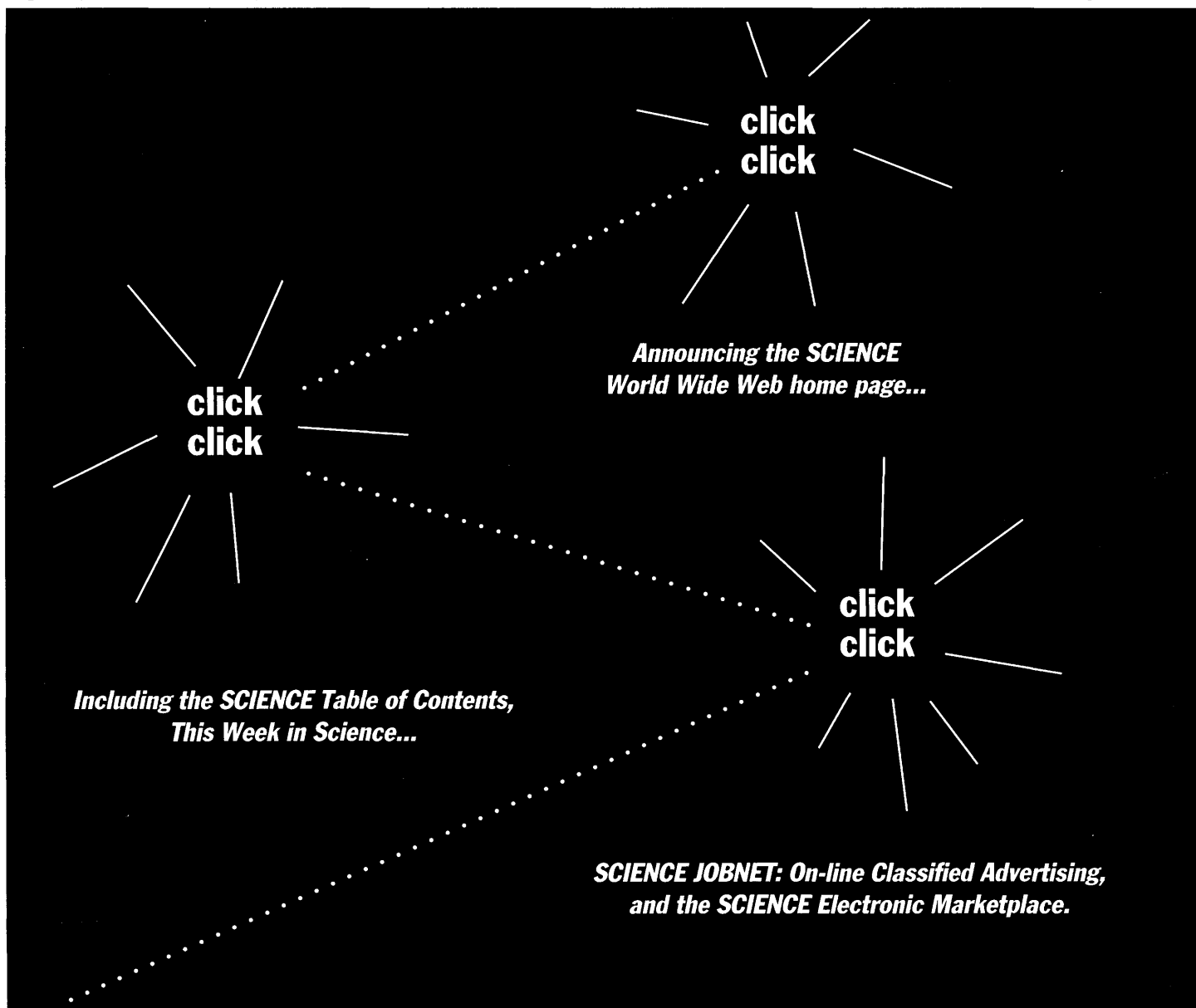
A Ph. D. degree is required. An M.D. degree is optional. Knowledge of the French language is an asset.

Please send a detailed curriculum vitae and two letters of reference to Dr. Pierre Duquette, Division of Neurology, Hôpital Notre-Dame, Centre de Recherche Louis-Charles Simard, 1560 Sherbrooke East, Montréal, Québec, Canada H2L 4M1

POSITION FOR A NEUROLOGIST AND CLINICAL NEUROPHYSIOLOGIST

The Division of Neurology at Hôpital Notre-Dame (affiliated to the Université de Montréal's Faculty of Medicine) has a well established and active research group in epilepsy with a long tradition of epilepsy surgery. We are recruiting a neurologist and clinical neurophysiologist with experience in the investigation for epilepsy surgery including depth-electrodes studies, and particular knowledge in neuro-imaging in epilepsy. (functional MRI, SPECT and P.E.T.). Send curriculum vitae to Dr. Jean Marc Saint-Hilaire, Director, Clinical neurophysiology Service, Hôpital Notre-Dame, Centre de Recherche Louis-Charles Simard, 1560 Sherbrooke East, Montréal, Québec, Canada H2L 4M1

SCIENCE ENTERS CYBERSPACE!



The world of SCIENCE...Now on-line: Now you can access SCIENCE and these exclusive features on the SCIENCE World Wide Web home page with just a click of your mouse:

- **SCIENCE On-line:** Read the SCIENCE Table of Contents, the SCIENCE Editorial and This Week in SCIENCE the same day that the printed version is published!
- **Beyond the Printed Page:** This exclusive on-line feature includes special interactive projects such as, *Conduct in Science*, important data and a constantly evolving collection of electronic information that pioneers new territory beyond the printed pages of SCIENCE.
- **SCIENCE JOBNET:** With SCIENCE JOBNET: On-line classified advertising, you can survey the latest in career opportunities from around the world each week. You'll also find additional on-line career related articles and information.

Whether you want to take part in interactive discussions, look for a new job or review the latest product information, look to the SCIENCE World Wide Web page first. Take advantage of these exclusive on-line features from the journal revolutionizing the world of scientific publishing: SCIENCE.

SCIENCE WWW Address: <http://www.aaas.org>

SCIENCE
COVERS THE WORLD

POSITIONS OPEN



Agricultural
Research
Service
United States
Department of
Agriculture

The USDA -Agricultural Research Service announces a **RESEARCH MICROBIOLOGIST** permanent position at Albany, California. The incumbent will be located at the Western Regional Research Center and will be responsible for conducting research on the attachment of pathogenic bacteria to the surface of poultry. The individual will be a part of a team studying the microbiological and chemical safety of poultry chiller water. In addition, the incumbent will serve as expert in microbiology to the Center's research staff. Salary range is \$44,450 to \$68,711 per annum based on qualifications and experience. U.S. citizenship is required. For program information contact: **Dr. William F. Haddon**; telephone: 510-559-5803; Email: haddon@pw.usda.gov. For application procedures and a copy of vacancy announcement, contact: 301-344-0156. Incomplete applications will not be considered. *ARS is an Equal Opportunity Employer.*

RESEARCH FACULTY INSECT DEVELOPMENTAL BIOLOGIST

The Center for Conservation Research and Training at the University of Hawaii is seeking a full-time **ASSISTANT RESEARCHER** (Position No. 086172T; non-tenured) to apply developmental biology approaches to the understanding of sexual behavior and the evolution of morphological diversity in Hawaiian *Drosophila*. The successful candidate will be expected to design, perform and evaluate various experiments in collaboration with a team of researchers investigating behavioral genes to elucidate the molecular basis of sexual selection. Applicants must have a doctorate in the field of developmental biology with background in internal morphology of *Drosophila*. A letter of application, including statement of research interests, curriculum vitae, and three letters of recommendation should be sent to: **Dr. Kenneth Y. Kaneshiro, Director, Center for Conservation Research and Training, University of Hawaii, 3050 Maile Way, Honolulu, HI 96822** by September 8, 1995. Telephone: 808-956-6739; FAX: 808-956-9608. Approximate start date is October 1, 1995. *Affirmative Action/Equal Opportunity Employer.*

TROPICAL ECOLOGY AND FORESTRY

The Institute of Pacific Islands Forestry, Pacific Southwest (PSW) Research Station, USDA Forest Service, with headquarters on Honolulu, Hawaii, has openings for three permanent full-time **SCIENTISTS**. Vacancy announcements which include qualification requirements and application procedures may be requested from the PSW Research Station Personnel Office, 510-559-6365. Inquiries about the position should be directed to **Dr. John J. Ewel**, 808-522-8230. Apply by 15 September 1995.

Insect Ecologist. To lead team addressing invasions of non-indigenous plants, with emphasis on biological control. Based in Hilo. GS-0414/0408-13. Salary: \$56,210 to \$73,070.

Forester/Ecologist. To work on forested wetlands and restoration of upland forests. Emphasis on silviculture, tree regeneration, and growth. Based in Honolulu. GS-0460/0408-12. Minimum salary: \$50,352.

Hydrologist. To work on forested wetlands and restoration of upland forests. Emphasis on hydrology of wetlands, interactions between wetlands and adjacent upland and aquatic environments, and the relationships between tropical vegetation and water yield. Based in Honolulu. GS-1315-12. Minimum salary \$50,352.

USDA is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE

RESEARCH ASSOCIATE for projects involving laboratory simulations of planetary and prebiological organic chemistry. Ph.D. in Chemistry or other physical science with experience in one or more of the following areas: atmospheric organic chemistry, radiation chemistry, bio-organic chemistry, organic geochemistry, cosmochemistry. Expertise in one or more of the following: GC/MS, HPLC, quantitative UV/VIS/IR spectroscopy, vacuum systems. Interest in planetary science, exobiology, origin of life. Send curriculum vitae and three reference letters to: **Prof. Carl Sagan, Laboratory for Planetary Studies, Cornell University, Ithaca, NY 14853-6801.** *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN



Agricultural
Research
Service
United States
Department of
Agriculture

SUPERVISORY RANGE SCIENTIST RESEARCH GENETICIST OR RESEARCH ANIMAL SCIENTIST (Interdisciplinary)

The U.S. Department of Agriculture, Agricultural Research Service (ARS), Sheep Experiment Station located in Dubois, Idaho, invites applications for the position of **RESEARCH LEADER**, GS-14/15 (\$59,920 to \$91,629, salary commensurate with experience). The Research Leader conducts a personal research program in ovine genetics, nutrition, physiology, grazing management, or sustainable agriculture systems. In addition, the Research Leader provides administrative support and leadership for ongoing research programs in all of these areas. Responsibilities include management decisions for a range sheep production system; management of extensive research facilities, living quarters, and animal facilities; and representing the ARS to both the grazing livestock industry and environmental groups. A Ph.D. or equivalent in Animal Science, Range Science, Animal Genetics, or a closely related field is desired. This is a competitive, permanent appointment and U.S. citizenship is required. For information concerning the position please contact: **Dr. Robert Reginato, Pacific West Area Director, at telephone: 510-559-6060.** For application information and procedures please call 208-374-5306 or 301-344-3960, or FAX: 301-344-2962, or write to: USDA, ARS, DDES, 6305 Ivy Lane, Room 116, Greenbelt, MD 20770-1435. Applications must be postmarked no later than September 5, 1995. *ARS is an Equal Opportunity Employer.*

SENIOR ENVIRONMENTAL SCIENTIST

The Council of Energy Resource Tribes (CERT) is seeking a creative, energetic and entrepreneurial person with broad experience in environmental protection to manage CERT's environmental remediation and environmental protection programs. The successful candidate will have graduate degree or five years of related experience; demonstrated scientific accomplishment and scholarship; knowledge of regulatory requirements; experience working with Indian Tribes or indigenous peoples; excellent writing, administrative, leadership and teamworking skills. Competitive salary. Excellent benefits. To apply submit a letter of interest, curriculum vitae, salary requirements and references to: **Personnel, Council of Energy Resource Tribes, 1999 Broadway, Suite 2600, Denver, CO 80202.**

NATURAL RESOURCES WETLAND SCIENCE

3D/Environmental, a multidisciplinary environmental consulting firm is seeking an individual with expertise in wetland science, endangered species conservation, or environmental policy to provide technical leadership in the Natural Resources Program (NRP). NRP collaborates with NEPA, Cultural Resources, and RCRA/CERCLA programs. Expertise and experience should include project management, multidisciplinary project interaction, environmental permitting, or habitat creation/restoration. Ph.D. or M.S. required. Strong written and oral communication skills essential; consulting expertise preferred. Send application materials to: **Patricia Bruckner, 3D/Environmental, 781 Neeb Road, Cincinnati, OH 45233.** *Equal Opportunity Employer.*

SYMPOSIUM

SYMPOSIUM: Translation & Stability of mRNA. October 8 to 10, 1995, Cathedral Hill Hotel, San Francisco, California. Speakers: **E. Baker, H. Blau, R. Braun, A. Geballe, P. Green, J. Harford, J. Hershey, A. Hinnebusch, M. Katze, R. Lehmann, M. Mathews, D. Morris, R. Parker, S. Peltz, G. Read, T. Rouault, A. Sachs, P. Sarnow, R. Schneider, A. Shyu, R. Silverman, N. Sonenberg, O. Uhlenbeck, S. Warren, M. Wickens.** Organizers: **J. Harford, RiboGene; M. Katze, University of Washington; J. W. Larrick, PAIMM.** Abstracts due August 31, 1995. Sponsor: **Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043.** Telephone: 415-694-4996; FAX: 415-694-7717; Email: PAIMM@AOL.COM.

COMPUTER MARKETPLACE

SigmaStat for Windows

The ideal statistical software for the day-to-day data analysis needs of researchers. SigmaStat's unique Advisor recommends the correct test to run, checks the underlying assumptions, runs the test and interprets the results. The perfect statistical software for the nonstatistician!

1-800-4-JANDEL (1-800-452-6335)

415-453-7769 (fax)

sales@jandel.com

2591 Kerner Blvd

San Rafael, CA 94901



Circle No. 34 on Readers' Service Card

Oligonucleotide Design Software

☆ HYBsimulator™ ☆

Using the nearest neighbor model, **HYBsimulator** will simulate the hybridization of a large group of oligonucleotides with a large database (**GenBank**) (**Computer Hybridization Simulation**) to design optimal oligonucleotides with insight into the biological system. *Imagine the possibilities...*

AGCT (800) 494-AGCT (714) 833-9983

Circle No. 46 on Readers' Service Card

MARKETPLACE

SCIENCE LOGO T-SHIRTS BUY 2 & GET 10% OFF!

Blue type on grey 100% cotton shirt.

For details or an order form, call Corrine Harris at (202) 326-6527, or fax (202) 682-0816.



Custom Polyclonal Antibodies
BEST PRICES • BEST ANIMALS
ANIMAL PHARM SERVICES
(800) 808-0550

Circle No. 35 on Readers' Service Card

PARTICLE SIZE STANDARDS

NBS traceable calibration standards and controls. Large assortment of diameters from 0.02 to 2000 µm. microspheres of polystyrene, glass and fluorescent materials. Free catalog available. Toll Free 800-334-3883. In Calif. 415-424-1177. FAX 415-424-1158



P.O. BOX 50005
2463 FABER PLACE
PALO ALTO, CA 94303

Circle No. 8 on Readers' Service Card

Marketplace ads continue on page 602

MARKETPLACE

Custom Antibodies to Peptides & Proteins
 Conjugation, Purification and ELISA Titration Available.
 **BIO-PRODUCTS, INC.**
 TEL 1 (800) 481-9737 FAX 1 (619) 788-9694

Circle No. 20 on Readers' Service Card

Terrific Broth in a single powder formulation!
TB DRY™ bacterial growth media
 just mix and autoclave.
 no separate solutions! economical! fast! easy!
MO BIO Laboratories, Inc.
 800.606.6246, 619.944.7190, Fax 619.944.7134

Circle No. 48 on Readers' Service Card

GIBCO BRL
CUSTOM PRIMERS™
\$119
 PER BASE PLUS SETUP*
 ■ High quality
 ■ High capacity
 ■ Fast turnaround
 Internet Ordering on the World Wide Web:
<http://www.lifetech.com>
 Call for easy fax ordering form: (800) 828-6686
 * Setup Charge: \$5.00 for Deprotected or \$10.00 for Deprotected/Desalted primers.
LIFE TECHNOLOGIES.
 Producer of GIBCO BRL Products

Circle No. 13 on Readers' Service Card

The premium antibody for phosphotyrosine detection is available from the laboratory where it originated, for the low price of
PY20
 from **TRANSDUCTION LABORATORIES**
 1-800-227-4063
\$100/mg!
 Quality Antibodies for Signal Transduction Research

Circle No. 30 on Readers' Service Card

CUSTOM PEPTIDES
 High quality at unbeatable prices starting from \$195*
 Order with confidence knowing that you'll get the quantity and purity you require with no hidden extras.
 US: West Coast
 Tel: 800 644 1866
 Fax: 800 655 1866
 US: East Coast
 Tel: 800 633 8161
 Fax: 800 424 3970
 International:
 Tel: +61 3 9565 1111
 Fax: +61 3 9565 1199
 Europe:
 Tel: +33 72 41 7039
 Fax: +33 78 37 4062
 * 10-30 mg, 8-15 residues, unpurified with mass spec. CM 1011


Circle No. 10 on Readers' Service Card

MARKETPLACE

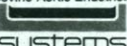
CUSTOM DNA SYNTHESIS
 PURE & SIMPLE
 • Superb Technical Support
 • Impeccable Quality
 • World's Fastest Service
 • Cap Gel & TOF Mass Spec
 * Some restrictions apply. Please call for details.
\$119*
 per base
 \$10 setup
 50 nmole scale
MIDLAND
 STILL THE UNDISPUTED #1 CUSTOM DNA SYNTHESIS SERVICE
THE MIDLAND CERTIFIED REAGENT COMPANY
 Phone 1-800-247-8766 FAX 915-694-2387
 email MCRC@WLN.COM

Circle No. 1 on Readers' Service Card

ONLY DNA
 No frills, Just good DNA at very low prices
\$1.60 per base
 • No set-up fee • 48 hour turnaround
 • 50 nanomole synthesis
 1-800-359-5794 email onlydna@wln.com
 Circle No. 9 on Readers' Service Card

QUALITY CUVETTES!!!
 Inexpensive Electroporation Cuvettes
 Each sterile package includes a free pipette for easy sample removal!
 **1-800-289-2465**
FAX: 619-597-9594

Circle No. 19 on Readers' Service Card

Human Microvascular Cells Complete Cell System
 NOW ONLY \$350
 NEW DEFINED ANIMAL ENDOTHELIAL CELL SYSTEMS:
 Porcine Aortic Endothelial Cell System
 Bovine Aortic Endothelial Cell System
 **800-697-1211**

Circle No. 28 on Readers' Service Card

Custom PEPTIDES
 Purity >70%, \$20/Res. (offer thro. May)
 1st order disc., no setup fee, free HPLC/A.A. analy.
PEPTIDE ANTIBODY: \$250 /Rabbit
 UNBEATABLE: NO CHARGE IF NO ANTIBODY PRODUCTION
PEPTIDE LIBRARY: from \$150 /library
TANA LAB., LC. 1-800-400-0070 (Tel)
 +1-713-663-7163 (Fax)

Circle No. 16 on Readers' Service Card

The Peptide Engineering Specialist
PeptidoGenic
 e mail: pkim@ccnet.com
 Fax: 510-371-1156
 Voice: 1-800-597-7873
 Custom Peptide: **\$20** /residue/crude/5days
 IonSpray MS Service: MS (\$30), LC/MS (\$250)
 No Setup Fee, Free HPLC, IonSpray Mass.

Circle No. 21 on Readers' Service Card

MARKETPLACE

World leader in Synthetic DNA and Peptides

Custom DNA E-Mail: Biosyn@aol.com
NO SETUP CHARGE
\$119* • 150 nmole (10 ODU)
 base • Synthesis Report
 • 24 hour SHIPPING
 Visit our Home Page on the Internet (WWW)
 * upto 30 bases <http://www.biosyn.com>
Custom PEPTIDES
! FREE MASS SPEC !
 • NO SETUP charge • Free HPLC Tracing
\$20 • 15 - 40 mgs
 residue • 8 - 30 residues
 * desalted • Shipped in 5 days
 ! Antipeptide Antibodies production services, & more !
 Since 1984, serving you with quality products
BIO-SYNTHESIS
 Tel: 800-227-0627 Fax: 214-420-0442

Circle No. 14 on Readers' Service Card

Concentrate 15 mL of Protein to 150 µL in Just One Spin!
 Call: 1-800-MILLIPORE
 Internet: <http://www.millipore.com/uf15>

Circle No. 36 on Readers' Service Card

FETAL BOVINE SERUM
 Triple 0.1µm filtered • Certified FMD & BSE Free • USDA Inspected
HIGH QUALITY ATLANTA biologicals LOW PRICES
 Call or Fax for Information, Pricing and a FREE Cell Culture Catalog.
 FREE Samples and Quantity Discounts are available.
 PH: (800) 780-7788 FAX: (800) 780-7374
 (404) 446-3336 (404) 446-1404

Circle No. 18 on Readers' Service Card

Custom MAb Production
 • Hybridoma Development
 • Ascites Production
 • In-Vitro Production
 • Purification Services
 • Labeling • Fragmentation
 (518) 537-8000 

Circle No. 36 on Readers' Service Card

Custom DNA
 Purified & Delivered in 48 hours
\$5.00 per base • Purified
Guaranteed minimum 100µg
Research Genetics, Inc.
1-800-533-4363

Circle No. 4 on Readers' Service Card

...WHY MIDLAND DNA?

One Fewer Unknown.

1. Custom DNA specialists with a twelve year track record of service and product quality.

Custom Oligonucleotide Synthesis, DNA and RNA
Sequencing Primers shipped in 6 hours*
Gene Construction and Sequence Verification
DNA and RNA Polynucleotides
Primers • Linkers • Enzymes
Molecular Biology Services

2. Record-time response to individual customer requests and needs.

Toll-free Technical Support
Overnight Delivery
FAX, Phone and Internet Ordering
Custom Packaging and Labeling

3. Exhaustive quality control standards.

Reagent Consumption Monitoring
Trityl Absorbance Measurement
Capillary Gel Electrophoresis*
NEW MW verified by TOF Mass Spectrometry*

4. Fair Price Policy.

\$ for \$ and Orange for Orange, your best value
Every oligonucleotide individually quality-controlled

5. At your service 24 hours a day on The World Wide Web.

<http://www.mcrc.com>
Current Prices for all Services
List of some 100 Modifications including
Biotin, Amino, Fluorescein and S-oligos
NEW List of Competitors with 800 numbers - Check **this** out!

* Optional service available. Call us for pricing.

*Call, FAX or e-mail **Midland** for our new catalog.
Better yet, visit our site on the web at <http://www.mcrc.com>
Tell us your thoughts at 800-247-8766
or e-mail to comments@oligos.com*

MIDLAND

One Fewer Unknown.

The Midland Certified Reagent Company

3112-A West Cuthbert Avenue
Midland, TX 79701

1-800-247-8766 • FAX 1-915-694-2387 • E-mail info@oligos.com

Circle No. 52 on Readers' Service Card

Maximum Performance for Scientific Imaging

Digital imaging of research results. Fast, Affordable, Kodak.

Kodak's new Scientific Digital Documentation System (SDDS) is the first digital camera system designed for documentation of research results in a wide range of scientific disciplines including Biology, Physical and Materials Science:

- ELISA and TLC plates
- Phenotypic variants
- Reaction flasks
- Fossils and geological samples

Its flexible "point and shoot" format and close-up accessory kit let you photograph samples as close as six inches either in the lab or the field.

Instant Access to Image Files. Obtain instant images without the waste and cost of photography since color images go straight to disk. You no longer wait for processing, reprints or scanning. View and manipulate images immediately. And transfer images to colleagues or documents in seconds.

Full Color Prints at Your Desk. Combine the Kodak SDDS with the Kodak 450GL color printer for instant, high-quality prints right at your desk. And save on print costs since you see images on-screen first, and print only the ones you want.

Put the SDDS to Work for You. Learn how the Kodak SDDS can help improve your scientific documentation and reporting. **Call (800) 225-5352 or (716) 722-5813** for complete product and ordering information.



Lenses and accessories

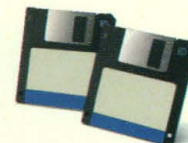


Photo Enhancer software included



Package with printer available



Mac OS



Mac and Windows compatibility

© 1995 EASTMAN KODAK COMPANY



Scientific Imaging Systems

EASTMAN KODAK COMPANY
Rochester, NY 14650

Australia/New Zealand Integrated Sciences Ltd (02) 417 7866 Belgium Sigma-Aldrich N.V./S.A. 0800 14747 / INTEGRA Biosciences AG (01) 830 22 77 Canada InterSciences Inc. (800) 661-6431 or (905) 940-1831
Denmark Struers KEBO Lab A/S (43) 86 87 88 Finland KEBO Lab OY (90) 804 4900 France Sigma-Aldrich Chimie S.a.r.l. 05 21 14 08 / INTEGRA Biosciences S.A. (1) 39 59 84 42 / Kodak-Pathe (film only) 64 61 21 77
Germany Sigma-Aldrich Chemie GmbH 0130 5155 / INTEGRA Biosciences GmbH (06404) 8090 India Biotech India (542) 311473 Israel TAMAR Ltd (02) 52 02 79 Italy Sigma-Aldrich S.r.l. 1678-27018 / M-Medical srl (055) 5001871
Japan Cosmo Bio (03) 5632-9610 / Kodak Japan (film only) 03-5488-2139 / Sigma-Aldrich Japan K.K. 03-5640-8850 Korea LRS Laboratories Inc (02) 924 86 97
Netherlands Sigma-Aldrich N.V./S.A. 06 0224748 / INTEGRA Biosciences AG (01) 830 22 77 Norway KEBO Lab AS (022) 90 00 00 Singapore Research Instruments, Pte. 65-7759228
Spain Quimigranel s.a. (91) 556 16 14 Sweden KEBO Lab AB (08) 621 34 00 Switzerland Sigma Chemie 155 00 20 / INTEGRA Biosciences AG (01) 830 22 77
Taiwan Long Chain Intl. Co. 886-2-5522605 United Kingdom IBI Limited 01223 24 28 13 / Sigma-Aldrich Co. Ltd. 0800 373731

Circle No. 42 on Readers' Service Card