

## **BRILLIANT DISCOVERIES WITH ALZET PUMPS.**

When it comes to new discoveries, ALZET osmotic pumps work to your advantage. By allowing you to deliver drugs continuously, administer agents with short half-lives, and target specific tissues, these miniature implantable pumps make possible experiments that cannot be done using conventional delivery methods. So you can observe effects that might otherwise go unnoticed—and uncover breakthroughs that might otherwise be missed.

Discover the advantage of ALZET osmotic pumps. For references and information pertaining to your area of interest, call ALZET Technical Services at (800) 692-2990. Or visit our web site at [www.alza.com/alzet](http://www.alza.com/alzet).

**alzet**<sup>®</sup>  
OSMOTIC PUMPS

[www.alza.com/alzet](http://www.alza.com/alzet)

Circle No. 19 on Readers' Service Card

# PRODUCTS & MATERIALS

## Liquid Handling DNA Workstation

The MultiPROBE DNA workstation is designed to meet the automation requirements of high throughput molecular biology applications. It automates the liquid handling requirements of a large number of different



genomics applications. Sequencing reactions, including dye primer and dye terminator assays, are automated using dispense volumes as small as 1 µl in order to conserve reagent volume and expense. High throughput DNA

quantitation and dilutions are completed by dispensing unique volumes of template and diluent in a multichannel mode. The unit can import data from Excel worksheets that define the dilution volumes for each template. **Packard Instrument.** For information call 800-323-1891 or circle 141 on the reader service card.

## DNA Binding Protein Purification

DNA binding proteins and other positively charged proteins can be separated from crude mixtures rapidly and simply using PhosphoMagnaCel in a one-step, one-tube purification protocol. This derivatized, magnetizable ion exchanger consists of negatively charged phosphate groups attached to sugar residues on a paramagnetic support. The magnetic separation technique allows for easy, gentle manipulation of protein solu-

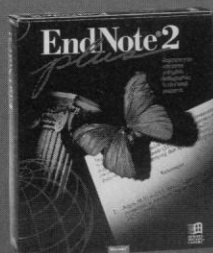
tions ensuring high yields of active protein. Unlike lengthy column chromatography procedures, minimal preparation time is required. **Vector Laboratories.** For information call 415-697-3600 or circle 142 on the reader service card.

## Molecular Weight Markers for PCR

A range of molecular weight markers designed to size polymerase chain reaction (PCR) products on agarose gels offers uniform band distribution and equal band intensity. The three-marker kits cover molecular weight ranges of 50 to 1000 bp, 50 to 2000 bp, and 1000 to 2000 bp. **Amersham International.** For information call 847-593-6300 or circle 143 on the reader service card.

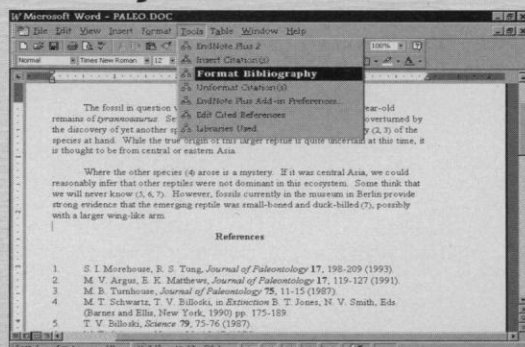
## Portable UV Darkroom

The Spectroline CM-26 ultraviolet (UV) viewing cabinet acts as a portable darkroom so researchers can view even the dimmest UV fluorescence in the brightest room light. The cabinet can provide both long-wave and short-wave UV irradiance with the push of a button. Its lamp produces a typical peak long-



## Attention WordPerfect for Windows and Microsoft Word 97 Users:

Now you too can create bibliographies in one step!



To create a bibliography, simply select **Format Bibliography** from Word's or WordPerfect's **Tools** menu.

- **EndNote** formats your references and in-text citations in **one step**.
- Works with WordPerfect for Windows (6.1 and 7) and with Microsoft Word 97. **NEW!**
- As in the past, works with Word 6 & 7 (Windows); 5 & 6 (Macintosh)
- Access **EndNote** from the Tools menu in Word or WordPerfect.
- Enjoy the simplicity of working with only one document.
- Revise the same document as many times as you need.
- Includes bibliographic styles for more than 300 journals.
- EndLink (now included with **EndNote**) imports from more than 100 online databases (e.g. Medline).
- 32-bit processing. Works under Windows 3.1, Windows 95, Windows NT and Macintosh
- More than 100,000 copies sold



Niles & Associates, Inc.

800 Jones Street Berkeley California 94710 USA Phone 800.554.3049 or 510.559.8592 Fax 510.559.8683

E-mail: [info@niles.com](mailto:info@niles.com) World Wide Web: <http://www.niles.com>

Circle No. 14 on Readers' Service Card

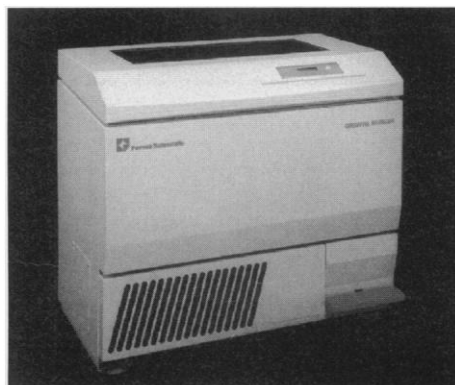
Australia (+61) 66.58.3674 France (+33) (0) 1.42.46.00.42 Germany (+49) (0) 69.970841.11 Japan (+81) 3.3384.8861 Scandinavia (+46) 481.511.23 UK (+44) (0) 1865.784800



wave UV (365 nm) intensity of 350  $\mu\text{W}/\text{cm}^2$  and a short-wave UV (254 nm) intensity of 390  $\mu\text{W}/\text{cm}^2$  at the cabinet floor. The lamp also detaches easily for handheld applications. A flexible, contoured viewing eyepiece is equipped with a UV-absorbing window to protect the user's eyes. A removable panel on the cabinet bottom enables the CM-26 to fit directly on any of the 13 models of Spectroline UV transilluminators, thereby providing bottom lighting and even higher UV intensity to the specimen. **Spectronics.** For information call 800-274-8888 or circle 144 on the reader service card.

### Console Incubator Shaker

Model 4535 Console Incubator Shaker features two patented innovations designed to provide an environment for optimum growth. The dynamically balanced orbital shaker mechanism ensures smooth orbital motion. The heavy duty eccentric drive mechanism is triple counterbalanced for optimum handling of full or unbalanced loads, regardless of flask placement, and completely eliminates "walking." The speed range is 25



to 525 rpm, with  $\pm 1$  rpm control. The horizontal high-efficiency particulate air filter system eliminates cross contamination and improves sample yields. The filter is rated at 0.3  $\mu\text{m}$  for entrapment of extraneous airborne particulates. The temperature can be adjusted from 5°C above ambient to 60°C. **Forma Scientific.** For information call 800-848-3080 or circle 145 on the reader service card.

### Two-Hybrid System

The Hybrid Hunter System is a two-hybrid system designed to simplify cloning and to function with any two-hybrid prey/library vector. The bait and the prey are now both

much smaller (4.8 and 5.8 kb, respectively) and have improved multiple cloning sites for easier cloning and improved transformation efficiency. **Invitrogen.** For information call 800-955-6288 or circle 146 on the reader service card.

### Molecular Medicine Database

*Focus On: Molecular Medicine* is a diskette database for Windows and Macintosh operating systems. The diskette provides researchers with current bibliographic information and author abstracts on research literature in the field. The database covers such areas as tumorigenesis, immunology, molecular pathogenesis, human genetics, molecular cardiology, molecular endocrinology, molecular parasitology, pharmacology, and molecular psychiatry. **Institute for Scientific Information.** For information call 800-336-4474 or circle 147 on the reader service card.

### Literature

*SoftGrip Precision Pipettes* describes an ergonomically designed pipette line that provides a fatigue-free, comfortable hand grip. Designed to lessen stress associated with disorders such as carpal tunnel syndrome, the pipettes are offered in fixed volume, adjustable volume, positive displacement, and multi-channel models. **Hamilton.** For information call 800-648-5950 or circle 148 on the reader service card.

*True-View 3D Head* is a brochure on a practical way to obtain research-quality three-dimensional (3D) images for fluorescence, transmitted, and reflected light applications. The True-View 3D Head reveals more information about the interrelationships between structures within specimens—simultaneously creating left-eye and right-eye views to provide a true color, direct-view 3D image of a sample through the microscope eyepieces. **Edge Scientific Instrument.** For information call 800-597-3343 or circle 149 on the reader service card.

*How to Evaluate Your Quality Control Serum* is a wall chart providing advice based on a study of characteristics of commercially available control sera. **Accurate Chemical & Scientific.** For information call 516-333-2221 or circle 150 on the reader service card.

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.

ADVANCED BIOCONCEPT

biologically  
active

Fluo  
peptides™

a visible advantage

Non-radioactive  
fluorescent peptide  
probes for G-protein  
coupled receptors:

- Receptor binding
- Cellular imaging
- Flow cytometry
- Cell sorting

High affinity Fluo-peptides™  
available include:

- |                        |                      |
|------------------------|----------------------|
| • Fluo-angiotensin II™ | • Fluo-NPY™          |
| • Fluo-deltorphin™     | • Fluo-PACAP™        |
| • Fluo-dermorphin™     | • Fluo-PYY™          |
| • Fluo-galanin™        | • Fluo-somatostatin™ |
| • Fluo-neurokinin A™   | • Fluo-substance P™  |
| • Fluo-neurotensin™    | • Fluo-VIP™          |

Orders: 888.FLUOTAG

Tel: 514.874.5434 Fax: 514.874.9077

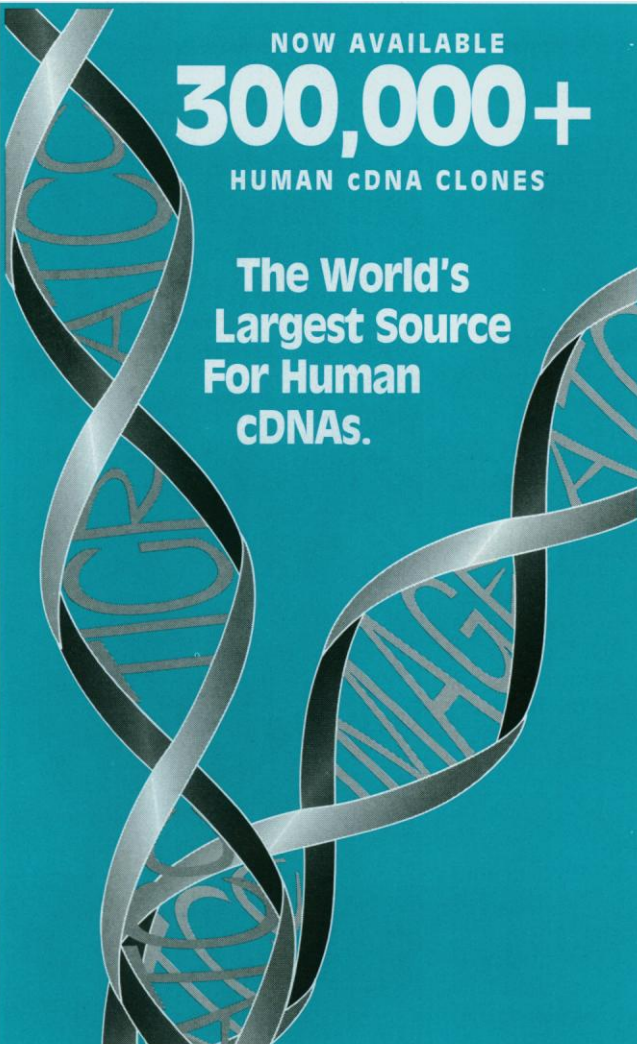
mail@bioconcept.com www.bioconcept.com

Circle No. 17 on Readers' Service Card



NOW AVAILABLE  
**300,000+**  
 HUMAN cDNA CLONES

**The World's  
 Largest Source  
 For Human  
 cDNAs.**



**The TIGR/ATCC Special Collection  
 cDNA clones from I.M.A.G.E. \*,  
 TIGR and J. Sikela**

All clones are available from ATCC with two levels of characterization:

- Directly from plate arrays
- Re-sequenced to verify the reported Expressed Sequence Tag (EST)

For more information, contact ATCC:

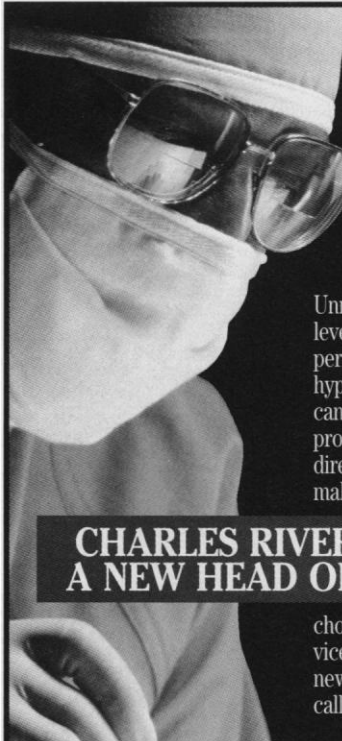
WWW: <http://www.atcc.org>  
 Gopher: <gopher.culture.atcc.org>  
 E-Mail: [sales@atcc.org](mailto:sales@atcc.org)  
 Phone: 1-800-638-6597 (U.S. & Canada)  
 Fax: 1-301-816-4361



12301 Parklawn Dr., Rockville, MD 20852

\* Lennon, G., Auffray, C., Polymeropoulos, M., Soares, M.B. 1996. The I.M.A.G.E. Consortium: An Integrated Molecular Analysis of Genomes and their Expression. Genomics 33, 151-152.

Circle No. 25 on Readers' Service Card



**The industry's  
 leading surgical  
 services team  
 adds a full-time  
 D.V.M. and M.D.**

Unmatched commitment, doctoral level personnel and the ability to perform everything from routine hypophysectomies to complex cannulations and stereotaxic procedures (all performed under direct veterinary supervision) make Charles River the logical

**CHARLES RIVER ANNOUNCES  
 A NEW HEAD OF OPERATIONS**

choice to meet your surgical services needs. Put Charles River's new head of operations in charge, call 1-800-LAB-RATS today.

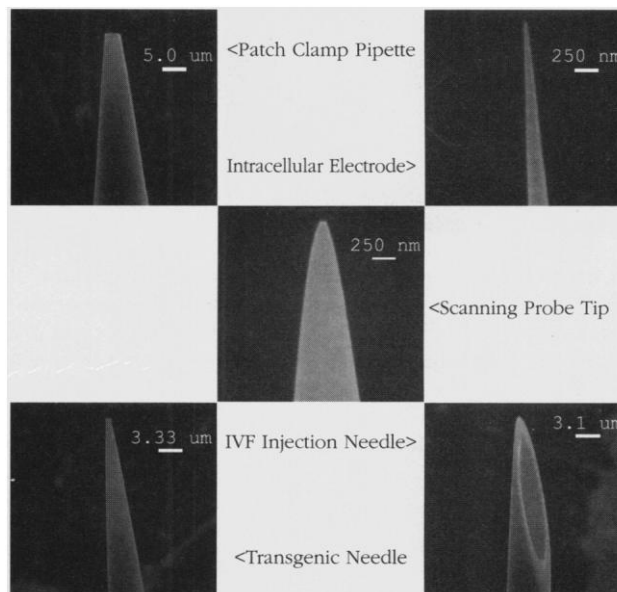
**Charles River**  
 LABORATORIES

Contributing to the Search for Healthier Lives™

1-800-LAB-RATS • <http://www.criver.com>

© Charles River Laboratories, 1997

Circle No. 39 on Readers' Service Card



Produced by  
 Micropipette Fabrication Instrumentation  
 from



**SUTTER INSTRUMENT COMPANY**

40 LEVERONI CT., NOVATO, CA 94949

PHONE: 415-883-0128 FAX: 415-883-0572

EMAIL: [info@sutter.com](mailto:info@sutter.com) WEB: [www.sutter.com](http://www.sutter.com)

Circle No. 11 on Readers' Service Card

## DISPLAY CLASSIFIED ADVERTISEMENTS

Call for rate and deadline information on display classified advertisements.

Email: science\_displayads@aaas.org

Bren Peters-Minnis  
Recruitment Display Advertising  
Telephone: (202) 326-6541  
FAX: (202) 289-6742  
Email: science\_displayads@aaas.org

Gabrielle Boguslawski  
Recruitment Sales Manager  
Telephone: (718) 491-1607  
FAX: (202) 289-6742

Debbie Cummings  
European Recruitment Advertising  
Telephone: +44 (0) 1223 302067  
FAX: +44 (0) 1223 576208

For **MEETINGS AND ANNOUNCEMENTS** display advertisements, see page 1289.

## LINE CLASSIFIED ADVERTISEMENTS

### How to Submit a Line Classified Ad:

Submit 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, Services. SCIENCE cannot provide proofs of typeset line 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.

For line advertising deadlines, call Eric Banks. Telephone: (202) 326-6555; FAX: (202) 289-6742. Email: science\_classifieds@aaas.org

**Credit Cards:** SCIENCE accepts American Express, MasterCard and VISA. Discount does not apply to credit cards.

**Cancellations:** Deadline for cancellation is Tuesday, 10 days prior to issue date.

**Discounts:** A 3% cash discount is granted to all prepaid ads.

**Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Debbie Cummings. Telephone: +44(0) 1223 302067; FAX: +44(0) 1223 576208.

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

www.sciencemag.org

### Mail, FAX or Email materials to:

SCIENCE Classified Advertising  
1200 New York Avenue, N.W., Room 911  
Washington, DC 20005  
FAX: 202-289-6742

Email: science\_classifieds@aaas.org (please include your telephone number in Email)

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

## POSITIONS OPEN

### MEHARRY MEDICAL COLLEGE SCHOOL OF MEDICINE RESEARCH CENTERS IN MINORITY INSTITUTIONS (RCMI) AND THE DEPARTMENT OF BIOCHEMISTRY

**FACULTY POSITIONS** are available in 1997 and 1998 at the assistant professor, associate professor or professor levels in the area of cell signaling, which has been targeted for expansion at the college. Initial funding for these positions is provided by an NIH-funded RCMI program at the college and support from the School of Medicine.

Recruitment of four individuals is expected in an effort to develop a critical mass of investigators studying cell signaling at the institution. We are seeking scientists who merit primary appointment in the department of biochemistry. Joint appointments in clinical or other basic sciences departments are expected. Preference will be given to applicants who have an interest that complements one of our clinical science departments. Selected individuals must have potential or demonstrated competence in the use of molecular biological or biophysical approaches to conducting research in cellular signaling, and must also be capable of and committed to making significant contributions to the teaching and administrative functions of the appointing department(s). Successful applicants will be expected to develop/maintain a funded research program of high quality and to substantially participate in the graduate and professional (medical, dental, and applied health) school teaching programs of the department of biochemistry or other appointing department(s). They will also be required to participate in the further development of molecular neuroscience at the college. Applicants should send curriculum vitae, a statement on teaching interests, names of four individuals who may be contacted for reference, and a summary (not exceeding four pages) of potential research project(s) to either: **Fred Jones, Ph.D., RCMI Program Director and Vice President for Research, or John E. Arradondo, M.D., M.P.H., Dean School of Medicine, both at Meharry Medical College, 1005 D.B. Todd Boulevard, Nashville, TN 37208.** Applications will be evaluated by the search committee appropriate for the targeted area of cell signaling as well as by the appointing department(s). *Meharry Medical College is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITIONS IN CANCER IMMUNOLOGY

Cardinal Bernardin Cancer Center  
Loyola University Medical Center

Associate and Assistant Professor faculty positions are available for applicants with interest in diverse areas of cancer immunology, including immunotherapy of cancer, cancer vaccines, and cancer immune escape mechanisms. Expertise is especially sought in molecular approaches (gene therapy), antigen presentation, mechanisms of cell death, pre-clinical models, and translational research in the above-mentioned field.

The successful applicants will be provided with laboratory and office facilities within the new 125,000 square foot Cardinal Bernardin Cancer Center Building and a competitive compensation and start-up funds package. Opportunities for teaching at the graduate level are available within four graduate programs at the Medical Center.

Interested applicants with an M.D. and/or Ph.D. degree should submit a curriculum vitae, a description of current and future research interests, and grant history by August 15, 1997 to: **W. Martin Kast, Ph.D., Program Director, Cancer Immunology, Cardinal Bernardin Cancer Center, Loyola University Medical Center, 2160 South First Avenue, Maywood, IL 60153-5385.** *An Equal Opportunity Employer/Educator.*

**Wetlands Ecologist/Plant Ecologist.** The Department of Biological and Environmental Sciences welcomes applications for a tenure-track position in wetlands ecology/plant ecology at the **ASSISTANT PROFESSOR** level beginning August, 1997. In addition, the Department is seeking applications for two full-time, one-year appointments: **Mammalogist/Behavioral Ecologist and Soil Scientist/Plant Physiologist.** Contact: **Dr. C. Allan Miller, Search Committee Chair, Department of Biological and Environmental Sciences, California University of Pennsylvania, California, PA 15419.** For additional information, see: [www.cup.edu/dephmpgs/bio/bio.htm](http://www.cup.edu/dephmpgs/bio/bio.htm). May 30, 1997 deadline. *California University is an Equal Opportunity Employer. Minorities and women are strongly encouraged to apply.*

## POSITIONS OPEN

### THE UNIVERSITY OF IOWA ASSISTANT, ASSOCIATE PROFESSOR, OR PROFESSOR OF MICROBIOLOGY

The Department of Microbiology at The University of Iowa invites applications for a faculty position at the rank of Assistant, Associate Professor, or Professor. This is a tenure-track, twelve-month appointment with highly competitive start-up funds, laboratory space, salary, and benefits. Applicants should have a strong background in prokaryotic biology and use of molecular or biochemical approaches to study fundamental properties of bacteria. Areas of interest include but are not limited to: genetic regulation, bacterial photosynthesis, bacterial development and differentiation, stress responses, extremophiles, and other aspects of microbial diversity or metabolism. The appointee will be expected to maintain a vigorous research program and participate in graduate and undergraduate teaching activities of the department. Inquiries are invited from all qualified applicants. Applicant should possess a Ph.D. in microbiology or a related area, and have postdoctoral research experience and demonstrated research ability. Applicants should send a curriculum vitae, list of publications, and statement of research goals and should arrange to have three letters of recommendation sent to the Chairman of the Search Committee: **Faculty Search Committee, ATTN: Dr. Caroline S. Harwood, Department of Microbiology, The University of Iowa, Iowa City, IA 52242.** Email: [caroline-harwood@uiowa.edu](mailto:caroline-harwood@uiowa.edu); FAX: 319-335-9006. *The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are strongly encouraged to apply.*

### FACULTY POSITION IN APPLIED MATHEMATICS/FISHERIES AND RESOURCE MANAGEMENT

Applications are invited from applied mathematicians and/or statisticians for a tenure-track position in the Department of Mathematics. Responsibilities include 25% teaching (one course per semester) and 75% research at the University's Center for Marine Science and Technology (CMST). Applicants should have research experience/interest in marine fisheries and resource management.

Qualifications include an earned doctorate, potential for excellence in teaching, and potential for success in obtaining grants/contracts. Send letter of application, curriculum vitae, and names of three references to:

Chair, Search Committee

c/o Brian J. Rothschild, Director

Center for Marine Science and Technology (CMST)  
University of Massachusetts at Dartmouth  
North Dartmouth, MA 02747

*The University of Massachusetts at Dartmouth is an Equal Opportunity/Affirmative Action Employer.*

The Department of Pathology at Loyola University Chicago Stritch School of Medicine, located at Loyola University Medical Center, is currently seeking a **DIRECTOR** of the HLA/Tissue Typing Laboratory. Responsibilities will include support to the current transplant program handling approximately 120 cases (heart, lung, kidney) with expected inclusion of liver transplantation. Our laboratory has been identified as the transplant center for the National Marrow Donor Registry Program. Applicants need to be highly skilled, qualified professionals, M.D. and/or Ph.D. with ASHI certification, as well as possess established clinical and research experience as evidenced by publications and grant funding. Appointments will be made at a rank justified by experience and expertise. Interested individuals should submit a current curriculum vitae and letters of reference to: **Kenneth McClatchey, D.D.S., M.D., Chairman and Director of Laboratories, Department of Pathology, Loyola University Medical Center, 2160 South First Avenue, Maywood, IL 60153.** *Loyola is an Equal Opportunity Employer/Educator.*

The University of New Mexico School of Medicine seeks outstanding applicants to fill six new tenure-track positions at the rank of **ASSISTANT PROFESSOR**. For more detailed information, please see the advertisement which appeared in the April 18 and May 2 issues of *Science*. Additional information is also available at: <http://medlab1.unm.edu/index.html/Hughes>. The date for receipt of applications for best consideration has been extended to July 14, 1997. **Dr. Cheryl Willman, PI, Office of Research and Graduate Programs, University of New Mexico School of Medicine, BMSB, Box 520, Albuquerque, NM 87131-5196.** *UNM is an Equal Opportunity/Affirmative Action Employer and Educator.*



# THE CUTTING EDGE OF DRUG DISCOVERY

*Arris Pharmaceutical Corporation is an innovative biopharmaceutical company using an integrated, team-oriented approach to drug discovery. Our focus is on the discovery & development of diverse small molecule therapeutics for existing markets where present therapies have significant limitations. With so many promising collaborations & pre-clinical drug candidates coming to fruition, we have an outstanding opportunity for a select group of hands-on researchers to join our progressive interdisciplinary research team at the cutting edge of drug discovery.*

*We offer extremely competitive salaries, full benefits, attractive equity participation and career advancement opportunities within a progressive, growing company. Please forward your resume to:*  
**Arris Pharmaceutical Corporation, HR Dept., (Attn: Job#), 385 Oyster Point Blvd., Suite 3, South San Francisco, CA 94080. E-mail: [human\\_resources@arris.com](mailto:human_resources@arris.com).**

**[www.arris.com](http://www.arris.com)**

**Arris**  
**Pharmaceutical**

## **Group Leader**

### **Combinatorial Synthesis**

You will manage an R&D team of 6 Ph.D. scientists and 7 RAs focused on the initiation & tracking of solid/liquid-phase synthetic method development projects for the production of large libraries of discrete compounds. You will also prepare/deliver status reports to senior management, and organize & initiate the creation of a chemical scaleup facility that will produce bulk library intermediates and drug substance for clinical trials. The position requires a Ph.D. in organic chemistry; 3-7 years of relevant pharma industry process development experience (a successful record of project completion with full scale processes in a GMP manufacturing environment is preferred); and excellent organizational, presentation, supervisory and written/verbal communication skills. The demonstrated ability to lead, develop and empower a collaborative team of researchers is essential. (Job# SM5/97-330GL)

## **Scientist/ Senior Scientist**

### **Cell Biology**

Working closely with a team of medicinal chemists, enzymologists and molecular biologists, you will apply state-of-the-art technologies to elucidate the disease correlation of novel molecular targets and help bring suitable drug candidates to the clinical development stage. You will also help evaluate the company's lead compounds in various models of cancer, inflammation and immune-mediated diseases; expand/develop cell-based models & assays for drug absorption; and help develop oral protease inhibitors for various therapeutic areas. The positions require a Ph.D.; 2-5 years of relevant post-doctoral and/or pharmaceutical drug discovery experience; and a strong molecular biology background. Some pharma experience desired. Experience with peptide transport systems & bioanalytical support helpful. (Job# SM5/97-CBS)

## **Research Associate**

### **Crystallography**

You will prepare proteins & protein complexes for crystallization & X-ray analysis; conduct crystallization screening trials & evaluate results; and produce diffraction-quality crystals. You will also perform preliminary X-ray diffraction analysis, and collaborate with chemists & the protein purification group to move projects forward. The position requires a BS in biochemistry or chemistry; solid lab experience in the area of protein biochemistry; proven experience with purification & characterization of proteins and activity assays; and excellent organizational, observational and analytical skills. (Job# SCI5/97-RAC)

## **Scientist/ Senior Scientist**

### **Pharmacology**

Working closely with a team of medicinal chemists, enzymologists and molecular biologists, you will help evaluate the company's lead compounds in various models of cancer, inflammation and immune-mediated diseases. You will also apply state-of-the-art technologies to elucidate the disease correlation of novel molecular targets and help bring suitable drug candidates to the clinical development stage. The position requires a Ph.D.; 2-5 years of relevant post-doctoral and/or pharmaceutical drug discovery experience; and a broad background in cell biological disciplines. Experience with proteases a plus. (Job# SM5/97-PHS)

## **Scientist/ Senior Scientist**

### **Cell Biology**

Working closely with a team of medicinal chemists, enzymologists and molecular biologists, you will help evaluate the company's lead compounds in various models of cancer, inflammation and immune-mediated diseases. You will also apply state-of-the-art technologies to elucidate the disease correlation of novel molecular targets and help bring suitable drug candidates to the clinical development stage. The positions require a Ph.D.; 2-5 years of post-doctoral experience in cell-based assays of cancer & inflammation; and a broad background in cell biological disciplines. Knowledge of molecular biological techniques helpful. Experience with proteases a plus. (Job# SM5/97-211S)

## **Research Associate**

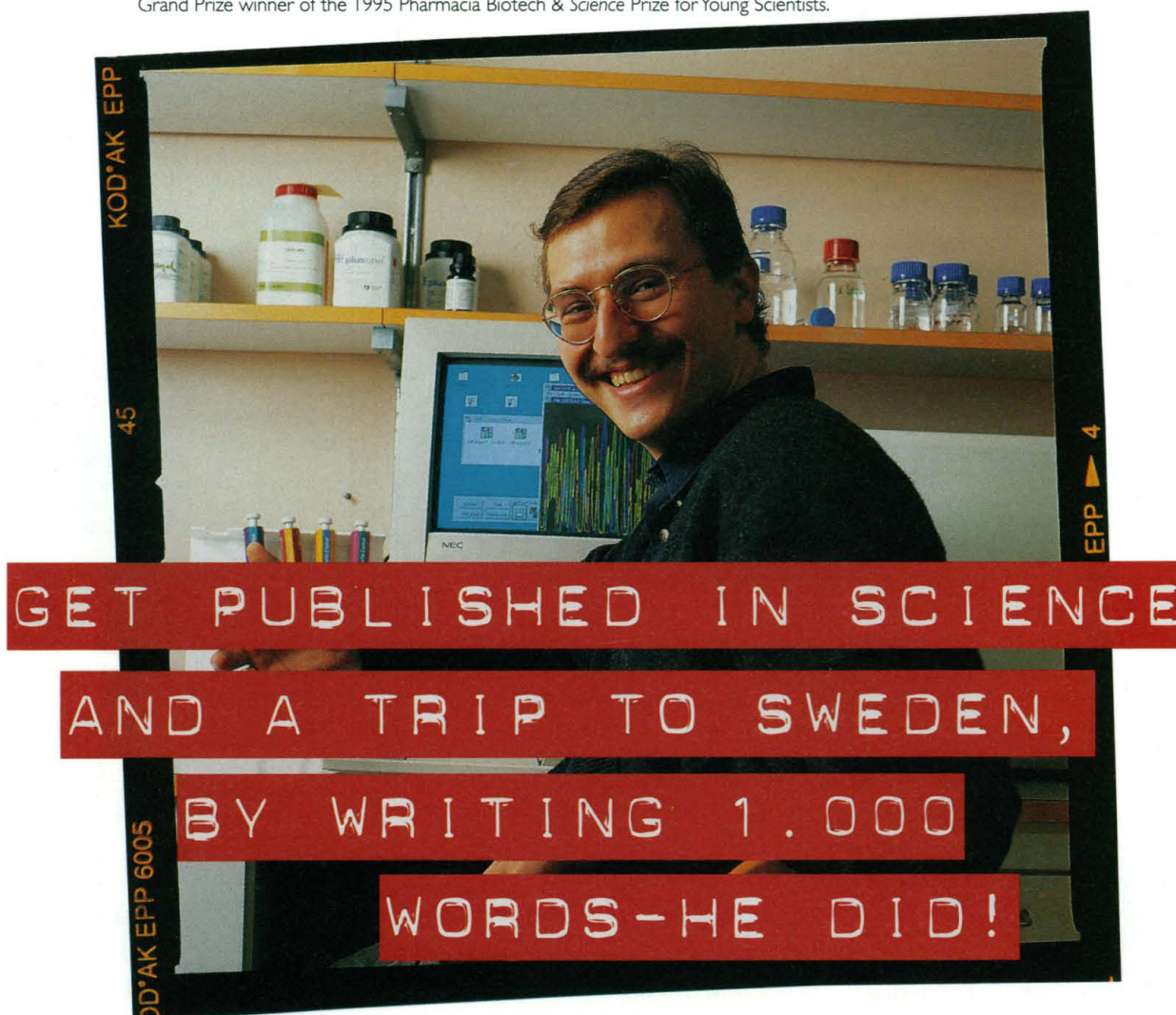
### **Enzymology**

You will perform experiments to characterize the lead Arris inhibitors of proteases & other enzymes, to include measurement of inhibition constants & defining mechanisms of action. You will also conduct quantitative experiments to measure biochemical constants for the interactions of small molecules with enzymes & other proteins; develop/validate new enzyme assays; and maintain & communicate accurate records/data. The position requires a BS/MS in biochemistry or allied discipline; 3-5 years of relevant academic/industry lab experience; knowledge of spectrophotometric, fluorometric and radioisotopic methods; proficiency with MS Excel & Word; and excellent analytical, quantitative and written/verbal communication skills. Experience with protein purification & familiarity with proteases would be helpful. (Job# SM05/97-ERA)

*Arris Pharmaceutical is an Equal Opportunity Employer.*

Dr. Michael Hengartner, a staff member at Cold Spring Harbor Laboratory in New York, was the first Grand Prize winner of the 1995 Pharmacia Biotech & Science Prize for Young Scientists.

PHC HANNO



(OH YEAH, AND \$20.000)

If you're a recent Ph.D. graduate whose thesis work was in molecular biology, we'd like to congratulate you. We'd also like to give you a little recognition for a job well done. All you have to do is enter an essay based on your graduate thesis to the 1997 Pharmacia Biotech & Science Prize for Young Scientists.

Your essay will be reviewed by a panel of distinguished scientists—who will then select one Grand Prize winner and up to seven other winners. The Grand Prize winner will receive the rewards mentioned above; all other winners will receive \$5,000 each and a free trip to Sweden to attend the award ceremony.

#### CALL FOR ENTRIES

To be eligible, you must have received your Ph.D. between 1 January and 31 December 1996. Your thesis work must have

been in the field of molecular biology. To enter, you must submit a 1,000 word essay that describes your thesis work and places it in perspective with regard to the field of molecular biology. The essay may be submitted in either English, French, German, Spanish, Japanese, or Chinese (Mandarin).

The closing date for entries is 30 June 1997. All prizes will be presented in Sweden in December 1997. Full details and the required entry form can be obtained from:

- the administrator of the Award Committee at the address below
- within the *Science* homepage at <http://www.aaas.org/science/prize.htm>
- within the Pharmacia Biotech homepage at <http://www.biotech.pharmacia.se>

Pharmacia  
Biotech & SCIENCE  
Prize for  
Young Scientists  
IN MOLECULAR BIOLOGY 1997

The Award Committee  
Pharmacia Biotech & Science Prize for Young Scientists

Enquiries from Europe – Science International, 14 George IV Street, Cambridge, CB2 1HH, UK. Tel: +44 1223 302067, Fax: +44 1223 302068

Enquiries from USA and other regions – Science, 1200 New York Avenue, NW, Washington, DC 20005 USA. Tel: 202-326-6504, Fax: 202-289-7562

# Genentech, Inc.

*incredible people*  
**extraordinary science**

*What does your work mean to you? At Genentech, our work represents a commitment to progress, a quest for discovery. What matters to us? Something incredibly simple - bettering human health. Whether researching with a next-generation medicine, or producing one of our five marketed products in manufacturing, you'll play a critical part in making our vision a reality. Each day, we make it more real. If you share that passion for life, imagine what we could do with your help. It's incredible, and extraordinary.*

## Scientist/Protein Chemistry

In this key position, you will pursue a research program for the separation and analysis of proteins that display changes in expression level or modification, correlating with disease state development stage or drug treatment. Initial work will involve two-dimensional gel electrophoresis, with protein identification by mass spectrometry. These tools will be applied to a number of new and ongoing projects. Improvements in sample throughput and detection limits will be examined through alternative separation methods, automation of sample handling, and improvements in data analysis tools and database structures.

The qualified candidate will have a Ph.D. in chemistry, biochemistry, or a related field with 2-5+ years' experience. Must have demonstrated skills in electrophoretic separations, preferably 2-D electrophoresis, microscale separations, and protein characterization by mass spectrometry. Experience in the application of these techniques to specific biological problems at high sensitivity is required. The candidate will also have a strong background in instrument development, as well as experience in the use of computers for data analysis and database searching. Demonstrated creativity and excellent communication skills necessary; knowledge of microfluidics a plus. Job Code SCI384

## Research Bioassay Scientist

You will work in the development and implementation of cell and nucleic based assays to support new drug discovery. The successful candidate will be a bench scientist with a keen interest in assay technology development and the ability to work effectively in a collaborative environment. Requirements include a Ph.D. or equivalent and post-doctoral experience in either endocrinology or physiology research. Expertise in histology and in situ hybridization techniques would be advantageous. Job Code SCI274

## Research Assistant/Protein Chemistry

You will participate in an active research program that involves the separation and analysis of proteins that display changes in expression level or modification which correlate with disease state, development stage, or drug treatment. This includes two-dimensional gel electrophoresis, HPLC, picomole-level protein analysis, gel staining, and image analysis, protein digestions, peptide analysis by mass spectrometry, and computer-based data analysis.

To qualify for this position, you must have a BS or MS degree in Chemistry, Biochemistry, or related field with 3-5+ year' experience. Experience in electrophoresis, preferably 2-D and picomole-level protein analysis is essential; experience with mass spectrometry an asset. Must have excellent communication and computer skills. Job Code SCI383

Join us and enjoy our exciting success and progressive benefit package that includes fully paid medical/dental/vision coverage, 3 weeks paid vacation, 6 weeks sabbatical after every 6 years, stock purchase opportunities for full time employees, and free health club membership. For consideration, send your resume, indicating Job Code of interest, to Genentech, Inc., Human Resources, 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. Please avoid bold, underline or italic type faces. You may also e-mail your resume indicating Job Code to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

**www.gene.com**

## UNIVERSITY OF MICHIGAN

A unique tenure-track opportunity exists at the University of Michigan for someone with the ability to bridge basic research in the Department of Biological Chemistry with research interests, of the Department of Obstetrics and Gynecology. The primary appointment will be in the Department of Obstetrics and Gynecology with an additional appointment in Biological Chemistry. Colleagues within both departments will provide stimulating opportunities for collaboration. Outstanding individuals with strong track records in cutting edge research relevant to reproductive biology are encouraged to apply. The selected individual will have a new laboratory adjacent to the Department of Biological Chemistry and will be expected to develop a strong, externally funded, and independent research program. They will also participate in graduate training, teach medical students, and interact with faculty throughout the medical school. Applicants should send curriculum vitae, bibliography, and a brief description of current and future research directions, and request three letters of reference to be sent to:

**Chair, Biological Chemistry and  
OB/Gyn Search Committee  
University of Michigan Medical School  
6428 Medical Science I Building  
1301 Catherine Street  
Ann Arbor, MI 48109-0617**

Deadline for applications is July 7, 1997.

*The University of Michigan is an Affirmative/  
Equal Opportunity Employer. Applications from  
qualified women, minorities, and/or disabled  
individuals are encouraged.*



## PROJECT LEADERS

DEKALB Genetics Corporation is the fastest growing agricultural seed company in the U. S. We seek scientists for the Quality Traits Group to conduct research targeted towards the development of corn hybrids with value-enhanced grains.

Candidates will have a Ph.D. in an area of the life sciences and at least two years additional laboratory experience. Expertise in recombinant DNA technology and protein processing/transport, inositol metabolism, manipulation of biosynthetic pathways, or protein engineering is required; experience with yeast expression systems or analysis of seed storage proteins is desirable.

Successful candidates will be located at DEKALB's biotechnology research facility in Mystic, CT, a scenic shoreline community located on Long Island Sound, halfway between New York and Boston. DEKALB offers competitive compensation, an attractive benefits package, and an outstanding working environment.

Send resume and the names, addresses and phone numbers of three professional references to DEKALB Genetics Corporation, Quality Traits Group, 62 Maritime Drive, Mystic, CT 06355-1958, Fax (860) 572-5240.





## AMERICAN ASSOCIATION FOR CANCER RESEARCH SCIENTIFIC CONFERENCES

---

**JUNE 7-11, 1997**

***Cancer of the Central Nervous System***

Conference with Neurosurgery Joint Section on Tumors

Chairpersons: Peter McL. Black, Boston, MA;  
Webster K. Cavenee, La Jolla, CA  
Loew's Coronado Bay Resort, San Diego, CA

**SEPTEMBER 9-13, 1997**

***Molecular Genetics of Cancer***

Conference with the European Association for Cancer Research

Chairpersons: Eric J. Stanbridge, Irvine, CA;  
Walter Bodmer, Oxford, England  
Hertford College, Oxford, England

**SEPTEMBER 26-30, 1997**

***Tumor Suppressor Genes***

Co-Sponsored by the National Cancer Institute of Canada

Chairpersons: Stephen H. Friend, Seattle, WA;  
Philip Branton, Montreal, Quebec, Canada  
Victoria Conference Centre, Victoria, BC, Canada

**OCTOBER 17-21, 1997**

***Transcriptional Control of Proliferation, Differentiation, and Development***

Chairpersons: Robert N. Eisenman, Seattle, WA;  
Elaine V. Fuchs, Chicago, IL  
The Sagamore Resort, Bolton Landing (Lake George), NY

**DECEMBER 12-16, 1997**

***DNA Methylation, Imprinting, and the Epigenetics of Cancer***

Chairpersons: Peter A. Jones, Los Angeles, CA;  
Stephen B. Baylin, Baltimore, MD; Timothy H. Bestor, New York, NY  
El Conquistador Resort and Country Club, Las Croabas, PR

**JANUARY 9-13, 1998**

***Mechanisms of Programmed Cell Death***

Chairpersons: John C. Reed, La Jolla, CA;  
Vishva M. Dixit, Ann Arbor, MI  
Renaissance Esmeralda Resort, Indian Wells (Palm Springs), CA

**JANUARY 24-28, 1998**

***Angiogenesis and Cancer***

Chairpersons: Judah Folkman, Boston, MA;  
Michael Klagsbrun, Boston, MA  
Hyatt Orlando, Orlando, FL

**FEBRUARY 16-21, 1998**

***Innovative Molecular Biology Approaches to the Prevention, Diagnosis, and Therapy of Cancer***

Joint Meeting with the Japanese Cancer Association

Chairpersons: Edward Bresnick, Worcester, MA;  
Kaoru Abe, Tokyo, Japan  
Maui Marriott Resort, Maui, HI

**MARCH 28-APRIL 1, 1998**

***89th Annual Meeting***

Chairperson: Frank J. Rauscher III, Philadelphia, PA  
Morial Convention Center, New Orleans, LA  
*Abstract Deadline: October 28, 1997*

---

AACR members will receive brochures on the above conferences as soon as they are available. Nonmembers should call or write:

American Association for Cancer Research  
Public Ledger Building, Suite 826  
150 South Independence Mall West  
Philadelphia, PA 19106-3483  
215-440-9300 • 215-440-9313 (FAX)  
E-Mail: [aacr@aacr.org](mailto:aacr@aacr.org)

For regular updates to this list visit the AACR's Website, <http://www.aacr.org>

## POSITIONS OPEN

### IMMUNOLOGY FACULTY APPOINTMENTS DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY The University of Texas Medical Branch

The Department of Microbiology and Immunology at the University of Texas Medical Branch invites applications for two tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level. The successful applicants are expected to develop or have previously established innovative independent research programs in immunology. We are particularly interested in, but not limited to, individuals pursuing research into molecular mechanisms that regulate immune responses to infectious agents, signal transduction in leukocyte activation, and related processes. We offer competitive start-up packages, modern laboratory space, and an interactive environment with excellent opportunities for productive collaborations with colleagues in the basic science and clinical departments, the Sealy Centers for Molecular Science, Structural Biology and Aging, the NIEHS Center for Environmental Health Sciences, the NIAID Hepatitis C Research Center, and the WHO Collaborating Center for Tropical Diseases. Please send applications, including a summary of past accomplishments, future research plans, and the names, addresses, and telephone numbers of three references to: **Immunology Search Committee, Department of Microbiology and Immunology, The University of Texas Medical Branch, 301 University Boulevard, Galveston, TX 77555-1019. UTMB hires only persons authorized to work in the United States.**

UTMB is an Affirmative Action/Equal Opportunity Employer. Minorities/Females/Disabled/Veterans.

### PHYSIOLOGIST/TOXICOLOGIST FOR ONE-YEAR TEMPORARY POSITION

The Department of Biological Sciences at Western Michigan University seeks applications for a temporary, one academic year appointment at the rank of **ASSISTANT PROFESSOR** for a physiologist/toxicologist beginning August 20, 1997. Primary responsibilities will be teaching three courses fall and winter semesters including Human Physiology for non-majors (fall and winter), Introduction to Toxicology for upper level undergraduate and graduate students (fall), and additional graduate courses in their area of expertise (one fall, two winter). A Ph.D. in physiology, toxicology or a related field is required. Preference will be given to individuals with previous teaching and postdoctoral experience. Opportunities for collaborative research in vascular physiology/pharmacology, developmental neurobiology and cell biology involving undergraduate and graduate students are available. Send letter of application, curriculum vitae, statement of teaching philosophy, brief statement summarizing short- and long-term career goals, and three letters of recommendation to: **William F. Jackson, Ph.D., Search Committee Chair, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI 49008-3899. FAX: 616-387-2849, Email: william.jackson@wmich.edu.** Review of applications will begin June 15, 1997 and will continue until the position is filled. *Western Michigan University, a Carnegie Classification Doctoral I Institution and Equal Opportunity Employer, has an affirmative action program that encourages applications from underrepresented groups.*

The Nephrology Division, Department of Pediatrics, University of Washington School of Medicine has a full-time position available for a **RESEARCH ASSISTANT PROFESSOR (Ph.D.)** to join a kidney disease research program that focuses on the cellular and molecular basis of renal fibrosis. At least one year of experience in molecular biology and protein work is required. The successful candidate will be expected to work both as a member of a team, with responsibilities for supervising and teaching postdoctoral research fellows (mainly M.D.'s), and also for developing an aspect of independent research that integrates with the overall research theme. It is expected that the applicant will be successful in obtaining extramural grant funding within two years. Candidates should send a cover letter including career goals, Email address, and curriculum vitae, and request three letters of reference be forwarded to: **F. Bruder Stapleton, M.D., Pediatrics CH-65, Children's Hospital & Medical Center, 4800 Sand Point Way NE, Seattle, WA 98105** by July 15, 1997. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

The USDA, Agricultural Research Service (ARS) Center for Medical, Agricultural, and Veterinary Entomology, Imported Fire Ant and Household Insects Research Unit, Gainesville, Florida is seeking a **RESEARCH ENTOMOLOGIST**, GS-0414-11/12. Salary is commensurate with experience (GS-11: \$37,507-\$48,761 per annum; GS-12: \$44,953-\$58,442 per annum). *Candidates must be U.S. citizens.* The position involves planning and conducting experiments, evaluating and interpreting data, and reporting the findings of research as part of a highly technical team research program designed to develop new, effective, environmentally acceptable technologies and strategies for proactively managing household insects and their attendant health implications. In addition to the basic educational requirements, applicants must demonstrate: 1) Ability to conduct research and report research findings; 2) Ability to conduct analysis of genomic and recombinant DNA and resultant recombinant proteins; 3) Skill in preparation of insect tissues for quantitative metabolic assays of enzyme systems as pertaining to insect toxicology; 4) Skill in the application of immunology principles used in immunological assays for quantitative and qualitative characterizations of insect or environmental extracts. For more information on the research program contact: **Dr. Richard J. Brenner, Telephone: 352-374-5903.** For information on application procedures/forms and a copy of the vacancy announcement, contact **Carroll Godfrey, Telephone: 352-374-5861.** Applications submitted in response to this advertisement must include announcement number **ARS-D7S-0102**, must be postmarked by June 30, 1997, and be mailed to: **USDA, ARS, HRD, Southern Operations Branch, 6305 Ivy Lane, Room 348, Greenbelt, MD 20770-1435. USDA/ARS is an Equal Opportunity Employer.**

### FOREST PRODUCTIVITY—TWO POSITIONS: MOLECULAR GENETICS/GENOMICS AND PHYSIOLOGY

The Daniel B. Warnell School of Forest Resources at the University of Georgia invites applications for two tenure-track research faculty positions at the level of **ASSISTANT PROFESSOR**. The molecular genetics/genomics position will focus on identification of genes in southern forest trees that speed growth and reduce pest and pathogen damage. Candidates for this position must have a Ph.D. and postdoctoral experience. Experience with forest trees is desirable. The forest productivity/physiology position will conduct research on the physical and biochemical processes that affect forest stand productivity. Applicants for this position must have a Ph.D. and experience in both tree physiology and mathematical modelling. Postdoctoral experience is desirable. Applications should include curriculum vitae, statement of research interests, letters of evaluation from three references, transcripts of all college-level work, and reprints of selected publications. Complete application packages received by July 1, 1997 are assured consideration. Send applications to: **Scott A. Merkle, Daniel B. Warnell School of Forest Resources, University of Georgia, Athens, GA 30602. Telephone: 706-542-6112; Email: smerkle@uga.cc.uga.edu.** *The University of Georgia is a unit of the University System of Georgia. The University of Georgia is an Equal Employment Opportunity/Affirmative Action Institution.*

### UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

The Department of Molecular Genetics and Biochemistry has openings for appointments at the rank of **ASSISTANT/ASSOCIATE/FULL PROFESSOR**. We are seeking applicants with a promising or established research record in the areas of cell cycle control, signal transduction, or the biochemistry of kinases and phosphatases. The selected candidates will be expected to maintain an externally funded and independent research program, as well as participate in the graduate and medical student educational and research training programs. Research space, start-up funds, and salary will be commensurate with qualifications and experience. Applicants should submit a curriculum vitae, research plan, and the names of three references to:

**Dr. Joseph Glorioso  
Chair, Department of Molecular Genetics  
and Biochemistry  
University of Pittsburgh School of Medicine  
E1240 Biomedical Science Tower  
Pittsburgh, PA 15261**

## POSITIONS OPEN

### PLANT VIROLOGY

Applications are invited for a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position in Plant Pathology. Review of applications will begin August 1 and the position is available November 1, 1997. Applicants must have a Ph.D. in plant pathology or a related area and postdoctoral experience in plant virology is recommended. The successful applicant should have demonstrated achievement in the area(s) of plant virology, host-virus interactions, virus detection, and/or host resistance to plant viruses. The incumbent will be expected to develop a competitive research program that addresses questions in the area of plant virology. In addition, the incumbent will be expected to work collaboratively with scientists in the application of current techniques in plant virology to address virus disease problems in Oklahoma. Teaching responsibility includes a graduate lecture and lab course in plant virology, participation in a professionalism course, and participation in seminars and student development. The salary is commensurate with background and experience. Applicants should submit a current curriculum vitae, a statement of research objectives and teaching philosophy (not to exceed four pages), transcripts of academic records, and three letters of recommendation to: **Dr. Carol Bender, Virology Search Committee Chair, Department of Plant Pathology, 110 Noble Research Center, Oklahoma State University, Stillwater, OK 74078-3032. Email: cbender@okway.okstate.edu.** For more information, see website: [http://bubba.ucc.okstate.edu/OSU\\_Ag/asnr/plpath](http://bubba.ucc.okstate.edu/OSU_Ag/asnr/plpath). *Oklahoma State University is an Affirmative Action/Equal Opportunity Employer. Applicants will be considered without discrimination for any non-merit reasons such as race, color, religion, sex, national origin, age, or disability.*

### TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY ASSISTANT/ASSOCIATE PROFESSOR

The Department of Biology invites applications for a tenure-track position at the rank of Assistant or Associate Professor, with demonstrated research accomplishments in the areas of molecular and/or cellular biology.

Start-up funds and excellent research facilities are available. The successful applicant will be expected to lead an independent research program, teach courses in the graduate and undergraduate programs, and participate in faculty duties and activities.

Full knowledge of Hebrew is required. Curriculum vitae, a brief description of research interests, and names of three referees should be submitted to: **Professor Shimon Gepstein, Dean of the Department of Biology, Technion-Israel Institute of Technology, Technion City, Haifa 32000, ISRAEL. FAX: 972-4-8221106.**

### SCIENTIFIC PROGRAMMER

Computer programmer with a background in computational biology to develop software for analysis of DNA and protein sequences. Requires at least three years of programming experience and a background in science or engineering. Proven skills in C are required, and experience with Java is preferred. Send résumé and three references to: **LifeSpan, 700 Blanchard Street, Seattle, WA 98121** or FAX to 206-447-0775.

### DIRECTOR OF BIOINFORMATICS

Develop and manage information systems. Requires strong analytical and computer skills, including database management, at least three years of experience in scientific research and development, and expertise in DNA and protein sequence analysis. Send résumé and three references to: **LifeSpan, 700 Blanchard Street, Seattle, WA 98121** or FAX to 206-447-0775.

### TENURE-TRACK RESEARCH FELLOW POSITIONS INSTITUTE OF ATOMIC AND MOLECULAR SCIENCES Academia Sinica

Institute of Atomic and Molecular Sciences plans on making **FACULTY** appointments in the areas of high resolution laser spectroscopy, ultrafast time-resolved spectroscopy and *ab initio* calculations. Interested persons should submit a résumé and names of three references to: **Professor S. H. Lin, Chair, Search Committee, Institute of Atomic and Molecular Sciences, Academia Sinica, P.O. Box 23-166, Taipei, Taiwan.**



# Procter & Gamble

## RESEARCH ASSOCIATES

Consider a career with a leading consumer products company committed to research and development.

We have several immediate openings in our Cardiac Research for bioengineers and biological scientists.

These positions are at the BS or MS level for research associates and are located in our Health Care facilities in Cincinnati, Ohio.

Candidates should possess experience in sonomicrometry, microsphere blood flow, chronic large models, in vivo pressure measures, and advanced acute/chronic cardiovascular techniques.

Successful candidates will be part of a four-person laboratory team dedicated to the discovery, screening and study of novel drugs which are targeted to the heart and cardiovascular system.

**P&G**

No agency referrals, please.

### • Physiology/Bioengineering

Selected candidates should have formal training in bioengineering or extensive work-related experience in biomedical recording equipment, instrumentation, & biological experimentation. Essential skills required include knowledge and use of biomedical recording devices and preamplifiers, implantable recording sensors and transducers, wiring and configuration of A/D converters, computerized data collection software and hardware, and application of these systems to in vivo data recording. Additional experience required is the ability and desire to work with various cardiac models within a medical/veterinary setting.

### • Physiology/Pharmacology

The selected candidate should have formal training in the biological sciences such as medical or veterinary physiology/pharmacology or extensive work-related experience in biomedical research, instrumentation and experimentation. Essential skills required for the position include knowledge and experience with veterinary-type health/handling and the ability and desire to work with acute and chronic instrumentation and experimentation.

Procter & Gamble is a world leader in the research, development, manufacture, and marketing of a wide variety of consumer products in the health and beauty care, food and beverage, laundry and cleaning and paper products areas. Annual sales exceed \$35 billion, and our annual R&D investment is over \$1 billion. P&G is one of the leading OTC product marketing companies in the U.S., and has a growing prescription drug business.

Candidates must be U.S. Citizens, permanent residents or refugees/asylees authorized to work full-time in the United States.

For confidential consideration, please send a letter of introduction and resume to:

Procter & Gamble  
U.S. Recruiting - R&D JSC732  
P.O. Box 599 TN-4  
Cincinnati, OH 45201-0599

Equal Opportunity Employer

# RESEARCH IMMUNOLOGIST OPPORTUNITIES

100 Years "Young"



Since our inception in 1897 Pasteur Mérieux Connaught has been at the forefront in the development and manufacturing of human biological products and vaccines. From producing smallpox vaccine for U.S. troops during the Spanish-American War to exploring the future of immuno-potential, we are dedicated to excellence in every phase of our operation. We are seeking outstanding scientists to conduct biomedical research in our Immunology Division.

## RESEARCH ASSOCIATE:

The successful candidate will have responsibility for the development and use of technologies related to analyzing immunological responses to antigens, vaccine formulations and pathogens. Expertise is needed in *in vitro* and *in vivo* assays, for cellular responses as detected by cytokine production and expression, proliferation, and the expression of cell surface molecules as analyzed by flow cytometry. Strong communication skills are essential, and the ability to function in a dynamic, interactive, interdisciplinary team environment is critical. To qualify, you must have a Ph.D. in immunology with research in cellular immunology (no post-doctoral experience required), or M.S. in immunology or cell biology with 5+ years experience. A strong background in tissue culture, ELISA analyses of cytokines, proliferation assays, flow cytometry as well as RT-PCR analyses of cytokine expression, animal handling for parenteral and mucosal immunogenicity studies is desired. (Respond to job code JP-01)

## SR. RESEARCH ASSISTANT:

We are seeking an individual with a M.S. degree in immunology or biochemistry, or a B.S. degree in immunology or biochemistry with 5+ years experience in the field. The successful candidate will have expertise in immunochemistry as well as experience in the development of monoclonal antibodies. Responsibilities include testing vaccine formulations and antigen preparations for immunological potency, and the development, documentation and qualification of immunochemical analyses using ELISA and BIACORE® technologies. (Respond to job code JP-02)

Pasteur Mérieux Connaught's R&D facility is located in a campus-like setting in a beautiful area of Northeastern Pennsylvania. As a member of the Rhône-Poulenc Group, we offer an attractive salary/benefits packages, ongoing opportunities for continuing education and professional development, and the satisfaction of working for a leading edge company with an exceptional record of success in the global marketplace.

For an opportunity to contribute to our innovative programs, please send your curriculum vitae to: Pasteur Mérieux Connaught, Job Code— P.O. Box 187, Route 611, Swiftwater, PA 18370. We are an equal opportunity employer M/F/D/V.

Committed to Protecting Life.

**P PASTEUR MÉRIEUX CONNAUGHT**  
RHÔNE-POULENC GROUP

## POSITIONS OPEN

### BIOCHEMIST

GEO-CENTERS, INC., a high technology, growth-oriented research and development firm specializing in scientific and engineering services for the DOD, has an immediate opening for a biochemist at their northwestern New Jersey location. Qualified candidates will possess a Ph.D. in biochemistry or related field with emphasis or expertise in enzymology, bacteriology, environmental science or biotechnology. The preferred candidate will have a minimum of one year of postdoctoral experience with biodegradation or biosynthesis methodologies using enzymatic processes. Additionally, he/she will have demonstrated experience and a thorough knowledge of HPLC, LC/MS. Experience in the isolation, characterization and cultivation of bacterial and fungal strains is desirable. Experience in the bioremediation of contaminated soil is a plus; specific contaminants of interest include nitrate esters, nitramines, and aromatic nitro compounds. Good written and oral presentation skills are required. The successful candidate must be available immediately. GEO-CENTERS, INC. offers a competitive salary and comprehensive benefits package, including relocation assistance. To be considered for this position, please send a résumé including salary history to: **GEO-CENTERS, INC., Attn.: HR Code/BIO, 200 Valley Road, Suite 102, Mt. Arlington, NJ 07856. FAX: 201-770-4087. GEO-CENTERS, INC. is an Equal Opportunity/Affirmative Action Employer.**

**STATISTICAL GENETICIST.** The Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, invites applications for a tenure-track position for a statistical geneticist at the level of Assistant or Associate Professor. A Ph.D., M.D./Ph.D. or M.D. with graduate training in statistical genetics, biostatistics, statistics, or mathematics is required, along with genetics-related postdoctoral experience or equivalent, or an advanced degree in genetics or a closely related discipline. Criteria for appointment include an active research program in genetic statistics or epidemiology, a strong history of peer reviewed publications, demonstrated management leadership, initiative in successful grant applications and evidence of willingness to collaborate with other investigators. Send a letter of interest, curriculum vitae and three letters of reference by September 1, 1997 to: **William W. Chin, M.D., Chair, Statistical Geneticist Search Committee, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. The Brigham and Women's Hospital is an Equal Opportunity Employer, and encourages applications from female and minority candidates.**

### RESEARCH ASSOCIATES

Creative and highly motivated cellular immunologists are invited to apply for research associate/postdoctoral positions in the newly created Institute for Gene Therapy and Molecular Medicine at the Mount Sinai School of Medicine in New York City. A major target under intensive basic research and clinical development is immunomodulatory gene therapies for primary and metastatic tumors. Prospective candidates should send an updated curriculum vitae and bibliography, a two-page summary of past research accomplishments and future goals, plus three letters of recommendation to the following address:

**Dr. Savio L. C. Woo  
Professor and Director  
Institute for Gene Therapy and  
Molecular Medicine, Box 1496  
Mount Sinai School of Medicine  
New York, NY 10029-6574**

**STAFF RESEARCH ASSOCIATE III, Sup.** \$2,775.00-\$4,158.33/month. The employee is responsible for the smooth functioning of a large multinational laboratory where research and training of graduate students and foreign scientists are top priorities. Duties include: supervising technicians, training students and foreign scientists, conducting research in the fields of virology, immunology and molecular biology, preparing grants and journal articles, and teaching a virology laboratory for veterinary students. Experience required includes: utilizing viruses as expression vectors, DNA cloning and sequencing, handling laboratory animals, working with viruses infectious to humans and radioisotopes, writing and evaluating immune responses to vaccines. A Laboratory Skills sheet is required. Apply to: **University of California-Davis Employment Office, TB 122, Davis, CA 95616 for job #7-0703. For the required application materials call: 916-752-1760, TDD 916-752-7140. Equal Opportunity Employer.**

## POSITIONS OPEN



### APPLIED MICROBIOLOGIST

The Microbiology Department at Oregon State University invites applications for a tenure-track, full-time faculty position at the assistant or associate professor level. We seek a microbiologist with research and teaching interests in agricultural biotechnology, including but not limited to food, dairy, or fermentation microbiology, and food and water safety. Salary will be commensurate with experience and qualifications. For full consideration, apply by August 15, 1997. Screening will begin immediately and continue until the position is filled, for an anticipated starting date on or around January 1, 1998. To apply please submit a letter of application, curriculum vitae, four letters of reference, and graduate transcripts to: **Dr. Stephen Giovannoni, Department of Microbiology, 220 Nash Hall, Oregon State University, Corvallis, OR 97331-3804; Telephone: 541-737-1845/737-1845; FAX: 541-737-0496; Email: giovanns@bcc.orst.edu.**

**COORDINATOR** of Clinical Research. The University of Nebraska Medical Center College of Dentistry is seeking a Coordinator of Clinical Research to direct programs in the new Center for Dental Research. A clinical research addition will be completed in 1997 that will house four clinical laboratories, two clinical support laboratories, a data analysis center, reception area, and seminar and office space. In addition, nearly 9,000 square feet of renovated basic science laboratories will be available for clinical interactions. Applicants should be highly motivated, independent, and well-trained in research design, statistics, clinical trials and outcomes research, expanding patient data bases, teaching one basic statistics course, and developing industrial interest and support in the Center for Dental Research. D.D.S. and Ph.D. degrees would be desirable. The position is open immediately, and applications will be considered as they are received. Rank and salary will be commensurate with qualifications and experience. Please submit letter of interest and curriculum vitae to: **Dr. Richard Reinhardt, Director of Research, UNMC College of Dentistry, P.O. Box 830740, Lincoln, NE 68583-0740. Affirmative Action/Equal Opportunity Employer. Women, minorities and the disabled are encouraged to apply.**

### STAFF POSITION MR SPECTROSCOPY

The Massachusetts General Hospital-NMR Center is recruiting a staff level/junior faculty appointment for development of MRS at 3.0T. The applicant should have extensive experience in brain spectroscopy, hardware development and MR physics. In addition, extensive pulse programming experience in EPIC is also required. Please send curriculum vitae, a statement of research interests, and the names and addresses of three references to:

**MRS Appointment  
MGH-NMR Center  
Building 149 13th Street  
Charlottesville, MA 02129**

*The Massachusetts General Hospital and Harvard Medical School are Affirmative Action/Equal Opportunity Employers.*

### POSTDOCTORAL POSITIONS IN GROWTH FACTOR RESEARCH

Two positions are available immediately in the Department of Physiology to work in the area of insulin-like growth factor research. One position involves studies of IGF1 transgenic and knockout mice. The other involves purification and cloning of a novel protease involved in IGF1 activation. Applicants should have a Ph.D., M.D. or equivalent and experience in either molecular biology or protein purification. Suitable candidates should send their curriculum vitae to: **Dr. L. Murphy, Department of Physiology, Room 435, 730 William Avenue, Winnipeg, Manitoba R3E 3J7 Canada.**

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Lawrence Shattuck, M.Ed., The New England College of Optometry, The Office of Admissions, 424 Beacon Street, Boston, MA 02115.**

## POSITIONS OPEN



**Agricultural  
Research  
Service** **United States  
Department of  
Agriculture**

ARS is seeking a **RESEARCH ENTOMOLOGIST**, GS-414-11/12 in the Bee Research Laboratory, Plant Sciences Institute, Beltsville Agricultural Research Center, Beltsville, MD. Salary is commensurate with experience (GS-11: \$38,330-\$49,831 per annum; GS-12: \$45,939-\$59,725 per annum). The position involves planning and conducting independent and cooperative research on the biology and control of parasitic bee mites and other bee diseases. In addition to education requirements and/or experience, applicants must demonstrate the following basic knowledge, skills and abilities: (1) Knowledge of the principles, methods, techniques and procedures of entomology, insect taxonomy, physiology and ecology, and (2) Ability to design, plan, and conduct research and publish results. The following selective placement factors must be addressed: (1) Skill in apiculture, (2) Knowledge of parasites, pests, and pathogens of bees, including parasitic mites, and various methods of control, and (3) Ability to investigate the interaction of parasitic mites on bee development, vigor and survival. For information on the research program contact **Dr. H. Shimanuki, 301-504-8205**. To obtain application procedures/forms and a copy of the vacancy announcement, please call **301-344-4638**. Applicants should follow the instructions on the vacancy announcement. Applications in response to this advertisement should be marked **ARS-D7B-130/B-7-23**.

*The U.S. Department of Agriculture is an Equal Opportunity Employer.*

### RESEARCH POSITION

The Department of Obstetrics and Gynecology at Rush-Presbyterian-St. Luke's Medical Center invites applications for the position of **DIRECTOR** of the Gynecologic Oncology laboratory. Our laboratory current focuses on cell-cell interaction and signal transduction pathways in cervical carcinoma and intraepithelial neoplasia. We are seeking candidates who would translate this research into fundable clinical research projects. Qualifications: M.D. or M.D./Ph.D., board certification in gynecologic oncology, advanced laboratory research experience in cell-cell interaction and signal transduction pathways in cervical carcinoma and intraepithelial neoplasia, documented by publications in peer-reviewed journals, and expertise in clinical gynecologic oncology trials. Academic rank will be commensurate with experience. Applicants should send a curriculum vitae to: **Dr. S. Faro, Chairman, Department of Obstetrics and Gynecology, 1653 West Congress Parkway, Chicago, IL 60612.**

### RESEARCH ASSOCIATE

New supervisory position at the San Francisco Veterans Administration is available in the laboratory of Frank M. Longo, M.D., Ph.D. for a Ph.D. neuroscientist with more than five years postdoctoral experience. One-half time devoted to guiding postdoctorals and technicians with experiments and manuscripts and one-half time conducting experiments. Focus is on signal transduction mechanisms of neurotrophin small molecule mimetics and the IAR receptor. Published experience in molecular biology, cell culture, and protein analysis is absolutely essential. Position institutionally funded and not grant-dependent. UCSF Department of Neurology academic appointment according to qualifications. Send curriculum vitae and names of three references to: **Frank M. Longo, M.D., Ph.D., Chief Neurology and Rehabilitation SF VAMC/Associate Professor and Vice Chair UCSF Neurology, V-127, 4150 Clement Street, San Francisco, CA 94121. U.S. citizenship is required. The Veterans Administration is an Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available to study the medicinal chemistry of dietary anticarcinogens and their effects on steroid hormone metabolism. Applicants should have a Ph.D. with experience in drug metabolism and modern methods of chemical purification and characterization. Some experience with organic synthesis, LC/MS, GC/MS desirable. Send a curriculum vitae and names of two references to: **Dr. Leonard Bjeldanes, Division of Nutritional Sciences and Toxicology, University of California, Berkeley, CA 94720-3104. FAX: 510-642-0535. Email: lfb@nature.berkeley.edu. Closing date: July 31, 1997.**





Neose Technologies, a leader in the development of carbohydrate therapeutics, is proud to announce the establishment of the:

### **Glycoscience Research Awards: Neose Technologies**

The Neose Glycoscience Research Awards were established to fund innovative research in the field of complex carbohydrate function and synthesis. Each awardee will receive up to \$75,000 toward a proposed research study. Awardees must be full-time, tenure track scientists at academic or other non-profit organizations. The only requirement asked of each awardee is the favor of a research progress seminar at Neose once per year.

#### **1997 Recipients:**

**Linda Baum, M.D., Ph.D.** Associate Professor of Pathology, Department of Pathology, UCLA School of Medicine, Los Angeles, CA.

Research subject: *Carbohydrate Ligands Involved in Galectin-1 Induced T Cell Apoptosis*. Dr. Baum's research is aimed at enhancing the understanding of specific carbohydrate-mediated events associated with the life cycle of T cells.

**William Canfield, M.D., Ph.D.** Assistant Professor of Medicine, Department of Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, OK.

Research subject: *An in vivo Model of Mannose 6-phosphate Targeted Lysosomal Enzyme Replacement Therapy*. Dr. Canfield's research will examine the therapeutic potential for targeting active enzymes to cells in patients with catabolic deficiency diseases.

#### **Applications for 1998:**

To request an application form, single-page abstracts of research proposals should be submitted to Neose Technologies before November 1, 1997. Applications will be judged by a panel of seven external scientists, and two Neose scientists. Preference will be shown to applicants having less than six years of federal funding, and final decisions will be made by April 1, 1998. Awards can be renewable for one additional year.

**Please send requests for applications to:**

neose@aol.com, or **GRANT** Program • Neose Technologies • 102 Witmer Road • Horsham, PA 19044

### **Research Scientist in Pine Tissue Culture**

The Genetics and Biotechnology Section of Westvaco Forest Science and Technology has an opening for a research scientist in its forest tree biotechnology program. The position is available immediately and involves development of tissue culture systems to support our pine genetic transformation program. The successful applicant will join an active team of researchers involved in genetic transformation and clonal propagation of southern pine species. Duties include: developing improvements to the pine tissue culture systems, including both embryogenesis and organogenesis, in support of our genetic transformation program; organization and maintenance of cell culture stocks; conversion of transgenic materials into plantlets; and coordination of greenhouse and field testing of transgenic material.

Applicants should possess a Ph.D. degree in a plant-related discipline (or M.S. degree in a plant-related discipline plus 5 years experience in plant tissue culture systems). A strong background in plant tissue culture systems is required. Working experience with woody plants is helpful, but not required.

Applicants should have demonstrated a high level of academic achievement. They are expected to be highly motivated individuals with the ability to work efficiently and independently yet cooperate closely with other team members. Successful candidates must be well-organized, goal-oriented and good at problem solving.

The Forest Science Laboratory is located 20 miles northwest of Charleston, South Carolina and has immediate access to excellent recreational and cultural activities, and numerous historical sites.

*U.S. citizenship or permanent residency is required.* Applications will be accepted until July 25, 1997, or until qualified applicants are found. For consideration, please send resume, college transcripts, and three letters of recommendation to: **Cindy L. McCord, Forest Science Laboratory, Westvaco Corporation, P.O. Box 1950, Summerville, SC 29484.** Enquiries: (803) 851-4733; or [clmccor@westvaco.com](mailto:clmccor@westvaco.com).

*Westvaco is an equal opportunity employer m/f.*

## **NATIONAL INSTITUTES OF HEALTH**

### **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

The NIH invites applications for **DIRECTOR, OFFICE OF TECHNOLOGY TRANSFER**, a Civil Service position in Senior Executive Service, salary range currently \$103,897 - \$123,100. Manages technology transfer program at NIH which is Lead Agency for Technology Transfer for health Operating Divisions of HHS. Serves as outreach official; develops policies/legislation; testifies before Congress. Manages staff demonstrating commitment to work force diversity enhancement.

**Applicants must possess** Bachelor's degree in biomedical or related health sciences plus professional experience at senior level that meets the following **mandatory qualifications**: (1) Ability to manage successful technology transfer program including management of invention reporting; patent/licensing negotiations; policy development; trends analysis; development of procedures relating to valuation/marketing of nascent technology; and conformance with intellectual property law; (2) Skill in representing organization through interacting/negotiating with senior technology management/product development personnel in private industry/academia, and with senior Federal and private sector executives on peer basis; and (3) Ability to provide administrative leadership to technology management organization involving budgeting, financial management, internal controls, automation, productivity and human resources management including cultural diversity enhancement.

Submit CV or resume; bibliography; and **detailed statement addressing mandatory qualifications**. Vacancy announcement should be obtained by calling 301-402-4111 (#OD-97-1020 opens May 5, 1997) or TDD 301-402-1970. Mail applications to **NATIONAL INSTITUTES OF HEALTH, OFFICE OF THE DIRECTOR EXECUTIVE OFFICE, ATTN: SUSAN ELDER, BLDG 31/ROOM 1C27, 31 CENTER DR MSC 2264, BETHESDA MD 20892-2264**. Applicants with access to Internet's World Wide Web may browse the NIH Home Page to view announcement and may apply through the Web at URL <http://helix.nih.gov:8001/jobs/> Applicants may E-Mail materials to [Susan\\_Elder@nih.gov](mailto:Susan_Elder@nih.gov)

**Applications must be postmarked or transmissions received no later than June 6, 1997. NIH is an Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Protein tyrosine kinases-mediated signal transduction and protein-phospholipid interactions in hematopoietic cells and angiogenesis. Experience in molecular biology required. Knowledge of gene knock-out is desirable. *Only U.S. citizen or permanent resident.* Send curriculum vitae and two references to: **Dr. Lyuba Varticovski, St. Elizabeth's Medical Center, TUSM, 736 Cambridge Street, Boston, MA 02135.**

## POSTDOCTORAL RESEARCH ASSOCIATES IMMUNOBIOLOGY

Postdoctoral Research Associate positions in cellular and molecular immunobiology available at East Carolina University School of Medicine (<http://www.med.ecu.edu/micro/mdept.htm>). Immunobiology faculty offer research opportunities in the following areas: **Dr. Richard A. Franklin**, molecular and biochemical analysis of lymphocyte signaling pathways; **Dr. Kelly P. Kears**, quality control of immune receptor assembly and regulation of T-cell development and activation; **Dr. Mark D. Mannie**, regulation of T-helper cell function, antigen-specific tolerance, and autoimmunity; **Dr. James A. McCubrey**, roles of oncogenes in apoptosis and abrogation of cytokine dependency in malignant transformation of hematopoietic and breast cells. Youthful department of 65 faculty, graduate students, and staff offers active research training and seminar programs in modern laboratories with excellent research support facilities. Salaries and benefits are nationally competitive.

Preferred candidates will have recent Ph.D. degrees and records of research productivity in molecular cell biology, biochemistry, cancer biology, and/or basic immunology. Send application letter citing area(s) of research interest, curriculum vitae, and names of three references with complete addresses and telephone/fax numbers to: **Postdoctoral Committee, Department of Microbiology & Immunology, School of Medicine, East Carolina University, Greenville, NC 27858-4354.** Telephone: 919-816-2700, FAX: 919-816-3104, Email: [hmoore@brody.med.ecu.edu](mailto:hmoore@brody.med.ecu.edu). *East Carolina University is an Equal Opportunity/Affirmative Action institution that accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act.*

## POSTDOCTORAL POSITIONS UNIVERSITY OF SOUTHERN CALIFORNIA MOLECULAR BIOLOGY

Postdoctoral positions are available to study the molecular biology and pathogenesis of several RNA viruses, including murine coronavirus, human hepatitis delta virus, and hepatitis C virus. Background in molecular biology, virology or biochemistry is desirable. Please send curriculum vitae to: **Dr. Michael Lai, Department of Molecular Microbiology and Immunology, University of Southern California, 2011 Zonal Avenue, HMR-401, Los Angeles, CA 90033.** FAX: 213-342-9555.

*The University of Southern California is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately to study the expression, function and regulation of cardiac membrane ion channels using animal models, cultured cells and human tissue. Experience in electrophysiology recommended with molecular biology training desirable but not necessary. Submit curriculum vitae, a letter describing research interests, and names of three referees to: **Dr. William A. Coetzee, Pediatric Cardiology, TH517, New York University Medical Center, 560 First Avenue, New York, NY 10016;** Email: [coetzee@is2.nyu.edu](mailto:coetzee@is2.nyu.edu). *New York University is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available after July 1, 1997 to construct a computational neural network model of multisensory integration in the superior colliculus. Background in collicular neurophysiology and computer programming experience required. Send curriculum vitae, summary of relevant experience, and three letters of reference to: **Dr. Thomas J. Anastasio, University of Illinois, Beckman Institute, 405 North Mathews Avenue, Urbana, IL 61801;** FAX: 217-244-5180; Email: [tstasio@uiuc.edu](mailto:tstasio@uiuc.edu).

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available to study histopathologic consequences of traumatic brain injury. Ph.D. or M.D. with experience in brain anatomy, pathology, microscopy, and immunohistochemistry. Please send curriculum vitae to: **Dr. Douglas Smith, University of Pennsylvania, Department of Neurosurgery, 3320 Smith Walk, Philadelphia, PA 19104-6316.**

**POSTDOCTORAL RESEARCH FELLOW.** Deborah Research Institute has a grant-based position for a postdoctoral research fellow to examine the regulation of gene expression and function of heat shock proteins in cardiac myocytes. The position will involve overseeing the direction and performance of experiments regarding (1) the identification of novel regulatory elements and transcription factors involved in the regulation of Hsp27 gene expression in cardiac myocytes, and/or (2) identification of roles played by Hsp27 in cardiac myocyte biology. The successful applicant will have obtained a Ph.D. or equivalent in biochemistry, cell or molecular biology, and will have experience in molecular biological research. Experience in cell culture is also desired. Interested individuals should send a current curriculum vitae and three letters of recommendation to: **Ms. Rebecca S. Stewart, Administrative Assistant, Deborah Research Institute, 20 Pine Mill Road, Browns Mills, NJ 08015-1799.** FAX: 609-893-2441.

## POSTDOCTORAL ASSOCIATE

Position available to study the cell biology of cell motility in *Diatyostelium*, leukocytes and/or metastatic cancer cells. Related projects include using 3D-Dynamic Image Analysis System (developed in this laboratory) to study cytoskeletal mutant motility, chemoattractants, and cell-matrix interactions during cell migration (See Soll, D.R., *Int. Rev. of Cytology*, 163:43, 1955, for background information). Requires a Ph.D. in cell biology or a related field. Extensive experience in one or more of the following areas is desirable: image analysis, immunohistochemistry, tissue culture, videomicroscopy, and confocal microscopy. Send curriculum vitae and names of three references to: **Dr. David Soll, Department of Biological Sciences, 138 Biology Building, The University of Iowa, Iowa City, IA 52242-1324.** *The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.*

## POSTDOCTORAL POSITIONS GENETICS AND MOLECULAR BIOLOGY HARVARD

Available immediately to study the mechanism, genetic control (p53, ATM, ERCC1) and inducibility of genome rearrangements (homologous and illegitimate recombination) in yeast, human cells and in transgenic mice (*Science*, 266:1573, *Nature*, 337:285, *PNAS*, 88:7585). Molecular biology experience and microbiology or cell culture or mouse breeding experience required. Please send curriculum vitae to: **Dr. Robert H. Schiestl, Department of Molecular and Cellular Toxicology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

**A POSTDOCTORAL RESEARCH ASSOCIATE** is needed to work on an NIH-funded project to characterize protective factors for oxidative damage. Qualifications: Ph.D. in biology, chemistry or related fields; experience in molecular biology, cell biology, and/or biochemistry welcomed. Salary of \$20,000 per year plus benefits. Send curriculum vitae and names/addresses of three references by June 1, 1997 to: **Ms. Jan Baxter, Southern Illinois University School of Medicine, P.O. Box 19230, Springfield, IL 62794-1311.** *Southern Illinois University School of Medicine is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** to study the molecular genetics of human DNA replication. Epstein-Barr virus sequences and immunoglobulin, globin, and *myc* gene families are being used as model systems both *in vivo* and *in vitro* to define mammalian origins of replication and to study their cell cycle regulation. The role of the LCR in the regulation of replication is also being investigated. Apply by mail and a FAX copy to: **Dr. C. Schildkraut, Albert Einstein College of Medicine, Resnick Campus, 1300 Morris Park Avenue, New York, NY 10461.** FAX: 718-430-8574. *Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION—ORGANIC CHEMISTRY—\$30K

Available to synthesize nucleoside analogs as biological probes. Background in nucleoside chemistry would be desired. Send curriculum vitae and three reference letters to: **Dr. Jorge R. Barrio, UCLA School of Medicine, Department of Molecular and Medical Pharmacology, B2-086A CHS, Los Angeles, CA 90095-6948.**

**POSTDOCTORAL** research position available immediately to identify and characterize tumor suppressor genes involved in cutaneous melanoma and breast cancer. Focuses on positional cloning of tumor suppressor genes in  $\leq 1$  Mb regions on chromosomes 6 and 11, as well as development of transgenic mouse models for melanoma. Requires a Ph.D. with expertise in molecular biology techniques and handling of laboratory mice. Send curriculum vitae, statement of research interest/experience, and three letters of reference to:

**Dr. Jane W. Fountain  
University of Southern California  
Institute for Genetic Medicine  
2011 Zonal Avenue, HMR413  
Los Angeles, CA 90033**

## POSTDOCTORAL POSITIONS

NIH-sponsored postdoctoral position available immediately for candidate with expertise in molecular biology. Projects include gene therapy and epithelial biology. *Must be U.S. citizen or permanent resident.* Send curriculum vitae and names of three references to:

**Dr. Paul A. Khavari  
Stanford University School of Medicine  
MSLS Building P206  
Stanford, CA 94305  
FAX: 415-723-8762.**

*Stanford University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL POSITIONS:** 1) Senior/Genomics of RNA/Molecular Biologist with Unix experience. Project deals with experimental validation of RNA motifs. [*TIBS*, 22:115, 1997]. 2) *In vivo* ribozymology/Biochemist with RNA and cell culture experience. Investigation of factors influencing the activity of ribozymes. [*JBC*, 271:19318, 1996; *Nature Biotech.*, 15:432, 1997]. Selections to be made between June 1 and August 15 to start from September 1 to November 15. Only applicants whose curriculum vitae clearly shows the required profile will be contacted. **Robert Cedergren, Département de biochimie, Université de Montréal, Québec Canada H3C 3J7.** Email: [ceder@bch.umontreal.ca](mailto:ceder@bch.umontreal.ca).

**POSTDOCTORAL POSITIONS** available at Boston University Medical Center to study renal cancer and renal development by identifying target genes, interacting proteins, and upstream regulators of critical transcription factors. Proficiency in molecular and/or protein techniques required. *Status as U.S. citizen, national, or permanent resident preferred for support on NIH-funded training grant.* Please send curriculum vitae and names of three references with telephone numbers to: **Dr. Herbert T. Cohen, Beth Israel Hospital, Dana 517, 330 Brookline Avenue, Boston, MA 02215.** Email: [hcohen@bidmc.harvard.edu](mailto:hcohen@bidmc.harvard.edu).

## UNIVERSITY OF STOCKHOLM, SWEDEN

Postdoctorate in Solid-State NMR in group of **Malcolm Levitt**. Theory, numerical simulation, model experiments, and biomolecular applications. Previous experience of solid-state NMR necessary. Experience with theory and simulation desirable. Position initially for one year with extension possible. Send curriculum vitae and Email addresses of two referees to: **Malcolm Levitt, Physical Chemistry Division, University of Stockholm, S10691 Sweden.** Email: [mhl@physc.su.se](mailto:mhl@physc.su.se).

## POSTDOCTORAL POSITIONS

Two postdoctoral positions available to study the neural basis of motor control. One is for brain mapping studies using  $H_2^{15}O$  PET (*Nature*, 383:618, 1996). The other is for microelectrode studies of behavior-correlated neuronal activity (*J. Neurophysiol.*, 77:1171, 1997). Résumé and references to: **Dr. Garrett Alexander, Department of Neurology, Emory University School of Medicine, Atlanta, GA 30322.** Email: [gea@neuro.emory.edu](mailto:gea@neuro.emory.edu).





**RESEARCH ASSISTANT  
POSITION**

**DIVISIONS OF  
GASTROENTEROLOGY AND  
LABORATORY MEDICINE**

**MAYO MEDICAL SCHOOL,  
CLINIC AND FOUNDATION**

Postdoctoral position available immediately to study exfoliated stool markers for colorectal neoplasia and to assist in assay development. Expertise in immunochemical technique and cell biology required. Please submit curriculum vitae and three letters of recommendation to:

**David A. Ahlquist, M.D.**

**Professor of Medicine**

**Division of Gastroenterology**

**Mayo Clinic**

**200 First Street SW**

**Rochester, MN 55905**

**FAX: 507/266-0350**

*Mayo Foundation is an affirmative  
action and equal opportunity educator  
and employer.*

**Post-Doctoral Scientists  
Extraordinary New Program  
in Functional Genomics**

The Whitehead Institute/MIT Center for Genome Research seeks highly motivated, creative and independent post-doctoral scientists to comprise a multidisciplinary team of geneticists, molecular biologists, computer scientists and clinicians to exploit oligonucleotide arrays ("DNA chips") for genome-wide monitoring of gene expression in normal and neoplastic cells, analysis of genetic variation associated with human disease, and the identification of genes associated with complex genetic traits. Candidates for post-doctoral research scientist should hold the Ph. D. or M.D. degree and have substantial experience in molecular biology, genetics or computational biology and informatics.

We offer excellent salaries, generous benefits, interaction with the MIT community, and a convenient location.

Please send CV and three references to: Tina Whalen, Whitehead Institute/MIT Center for Genome Research, One Kendall Square, Building 300, Cambridge, MA 02139. Equal Opportunity/Affirmative Action Employer.



**WHITEHEAD INSTITUTE**

## IMPORTANT DISCOVERIES FROM INNOVATIVE PROFESSIONALS.

SmithKline Beecham Pharmaceuticals is recognized internationally for its innovative and highly productive approach to drug discovery and development. Our success is built on the collaboration of multi-disciplinary teams of scientists sharing their ideas and expertise. We are currently looking for several highly motivated individuals to join our Research & Development team in suburban Philadelphia.

### Protein Biochemistry

#### Protein Biochemist

Our Protein Biochemistry Department is seeking a protein biochemist. This individual will be responsible for independently conducting laboratory research, purifying recombinant and naturally occurring proteins and peptides, and developing a functional network of internal/external collaborators in order to identify and further the progress of research and discovery initiatives. In addition, this individual will define molecular targets and/or novel approaches to solving problems as well as initiate and move forward original exploratory research proposals. The ideal candidate should have a PhD in Biochemistry, Bioorganic Chemistry, Enzymology, Protein Biochemistry or a related discipline, along with at least 1 year postdoctoral experience. Hands-on experience in protein/peptide purification, a proven record of publication and the ability to use computer-based systems for scientific purposes are all essential. **Refer to Job Code H7-0250.**

### Mass Spectrometry in Drug Discovery

#### Senior Mass Spectroscopist

Within our Physical and Structural Chemistry Department, the Research Mass Spectrometry Group currently has two positions available. In the first position, the qualified individual will use mass spectrometry together with the full range of chemical, biochemical, chromatographic, and electrophoretic techniques for the analysis of non-routine synthetic molecules, naturally isolated peptides and proteins, recombinant proteins, RNA and DNA. This person is expected to implement or develop new separation and MS techniques relevant to current or anticipated research needs, and to initiate collaborations with research chemistry and biology departments in areas such as enzyme mechanism studies, structural analysis of protein modifications, ligand-receptor interaction, and new protein or protein complex characterization. Duties also include reporting and presenting the results to chemists and biologists, and for presentation and publication of the research. Qualified candidates will possess a PhD in Chemistry or Biochemistry with at least 4 years of relevant mass spectrometry experience. Hands-on experience with HPLC-MS and/or CE-MS is required, as is experience with micro-sample preparation for MS analysis. Preference will be given to candidates with relevant postdoctoral training in the use of MS to address questions in structural biology, and to those who have demonstrated strong computer hardware and software skills. Experience with programming or use of macro-languages for PC, Mac, or UNIX is highly desirable. **Refer to Job Code H7-0197.**

#### Mass Spectroscopist

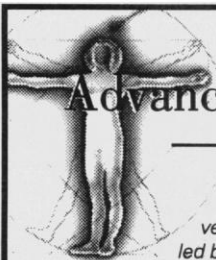
In the second position, the qualified candidate will share responsibilities for analysis of samples derived from the combinatorial chemistry program and other research feasibility studies and programs as required, and for reporting and presenting the results to the chemists. In addition to operating and maintaining robotic liquid handlers, LC, CE and MS systems, the successful candidate must also have experience in implementing and testing new software, methods and instrumentation designed for high-throughput analysis of pharmaceutical molecules. This person will also share responsibilities for maintaining and updating computer equipment and software, and for archiving data on computer servers, desktop computers, and instrument-associated laboratory computers in the Research MS group. The qualified candidate will possess a BS or MS in Chemistry or Biochemistry with at least 2 years of relevant mass spectrometry experience. Hands-on experience with HPLC is essential, and experience with CE is highly desirable. Demonstrated strong computer hardware and software skills are essential, and experience in laboratory automation, or with programming or use of macro-languages for PC, Mac, UNIX, or Internet is highly desirable. **Refer to Job Code H7-0198.**

Our state-of-the-art research facilities are located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package. For confidential consideration, please submit your resume and salary requirements, indicating desired Job Code to: SmithKline Beecham Pharmaceuticals, Job Code \_\_\_\_\_, P.O. Box 2676, Bala Cynwyd, PA 19004. For more information on SmithKline Beecham, visit our Web site at <http://www.sb.com>. We are an Equal Opportunity Employer, M/F/D/V.



**SmithKline Beecham**  
**Pharmaceuticals**

Challenging the natural limits.



## Advanced Medicine, Inc.

Located in South San Francisco, **Advanced Medicine, Inc.** is a progressive, venture-backed biopharmaceutical start-up led by experienced, forward thinking management & advisors from the top ranks of the health care, academic and business communities. We are dedicated to the discovery & development of novel therapeutic drugs and approaches, and currently have an unparalleled opportunity for a select group of productive, highly talented scientists to play a vital role in our growth & success.

### BIOLOGY

#### *Director*

You will build & lead the Company's drug evaluation and biological research structure. Responsibilities include establishing and coordinating broad panels of in-house & out-sourced in vitro, ex vivo and in vivo bioassays, and providing timely and insightful input to our drug discovery & development programs. You will also define and implement an aggressive program of basic research critical to the achievement of corporate goals & milestones. The position requires a Ph.D. in biological or biomedical sciences and/or an MD, 8+ years of relevant pharmaceutical/biotech industry experience, and clear distinction among peers in scientific accomplishment, product development and managerial activities. (Job# SCIO523-DB)

#### *Scientist*

You will be responsible for the design, optimization and implementation of in vitro & ex vivo assays to screen, quantify and understand the interaction of therapeutic agents with their biological targets. The position requires a Ph.D. in biochemistry, microbiology, cell biology or allied discipline, 2+ years or relevant industry experience, and a demonstrated record of creativity & achievement within the pharmaceutical/biotech industry. (Job# SCIO523-SB)

### CHEMISTRY

#### *Scientist*

Drug Discovery/Optimization - You will be responsible for the timely design, synthesis, purification and characterization of novel lead compounds for pharmacological evaluation. The position requires a Ph.D. in organic chemistry, 2+ years or relevant industry experience, and a demonstrated record of creativity & achievement within the pharmaceutical/biotech industry. (Job# SCIO523-SD)

Chosen candidates will have a strong desire/potential to excel and make substantial individual contributions in a breakthrough area of drug research. The demonstrated ability to effectively supervise associate scientists, and to work well within our collaborative, multidisciplinary research setting is essential.

*In addition to attractive compensation & benefits, we'll provide you with a scientifically challenging & rewarding environment, a pathway for professional growth, and significant equity participation. Please forward your resume with references & cover letter to: **Advanced Medicine, Human Resources, (Attn: Job#), 270B Littlefield Ave, South San Francisco, CA 94080. Fax (415) 827-8690. EOE***

**ADVANCED  
MEDICINE**

*The Future is Here*



# CYTEL

**Cytel Corporation** is a leading biotechnology company located in San Diego, CA, focused on the development of anti-inflammatory drugs and manufacture of bioactive carbohydrate products through its Glytec Business Unit.

We are seeking an entrepreneurial, technically skilled individual who can work effectively in the highly interactive and collaborative team environment of our Glytec Business Unit.

## SR. STAFF SCIENTIST

### MOLECULAR BIOLOGY/PROTEIN EXPRESSION

We seek a skilled professional to create recombinant protein expression systems for production of enzymes for use in manufacture of bioactive carbohydrate products.

Requires a Ph.D. and 5+ years of proven success in molecular techniques related to the expression of recombinant proteins. Knowledge of current molecular cloning technologies and construction of expression vectors is essential. Prefer industry experience in the expression of recombinant proteins in bacterial, yeast, filamentous fungus and insect/mammalian cell expression systems. An understanding of GMP procedure and documentation a plus.

Cytel offers a challenging environment, a competitive salary and benefits program, as well as stock options. Qualified candidates please send your resume to: **Cytel Corporation, Attn: Human Resources, Job Code: SS-S, 3525 John Hopkins Court, San Diego, CA 92121-1121. EOE.**



**Sandia National Laboratories**

### Postdoctoral Research Positions

Sandia National Laboratories is one of the largest R & D facilities in the nation. For more information, visit our Web Page: <http://www.sandia.gov>

We are currently seeking to hire Postdoctoral Researchers for a period of 1-2 years for the following positions:

- **Computational Material Scientist**
- **Electron Spin Resonance**
- **Organic Chemist**
- **Polymer Chemist**
- **Material Science**
- **Computer Science**
- **Parallel Computing**
- **Engineering Processes**
- **Optics**
- **Microelectronics**
- **Photonics**
- **Engineering Science**
- **Mechanical Engineering**

Other positions in various engineering and science areas are also available. All positions include paid interview and relocation expenses; we offer the following benefits: health and life insurance, paid vacation and holidays. All positions require Ph.D within the past year

**Salary: \$54,000 per year.**

To apply, applicants should submit a resume, a brief statement of research interests, and 3 letters of recommendation to: **Sandia National Laboratories, P.O. Box 5800, MS 1023, Department 3535-0051, Albuquerque, NM 87185, or e-mail: [mllopez@sandia.gov](mailto:mllopez@sandia.gov)**

Equal Opportunity Employer, M/F/D/V. U.S. Citizenship Normally Required.

**LOCKHEED MARTIN**





# Director, MRC Unit of Reproductive Biology

We invite applications from outstanding international scientists to head up this prestigious Unit based in Edinburgh. The Unit provides an exceptional environment in which to develop a wide range of leading edge, clinical and basic research initiatives in reproductive medicine.

The Unit has a broad research portfolio which currently embraces investigations of the molecular, cellular and endocrine mechanisms regulating the male and female reproductive systems and novel approaches for fertility regulation. It also acts as a focus for post-graduate training and collaborates with government agencies and international organisations in the furtherance of reproductive health research.

As Director, you would be responsible for leading a team of around 70 staff including a number of distinguished international scientists, and managing a number of related programmes. You would also be expected to head up your own research programme. The Director will be a key advisor to the MRC, contributing to corporate scientific planning.

With the Department of Obstetrics and Gynaecology, the Unit forms the Centre for Reproductive Biology and there are excellent opportunities for close collaboration with a number of University Departments in Edinburgh.

For this important appointment, we seek an internationally recognised scientist, with a strong record of research excellence in reproductive biology or a closely related field, who possesses breadth of vision in exploring future research opportunities for the benefit of human reproductive health. You should have had previous successful experience of directing a substantial research team and of facilitating multi-disciplinary interactions between researchers.

The position is open to both medically and non-medically qualified candidates with a broad awareness of the clinical applications of research on reproduction. Personal attributes should include an inspirational and authoritative style, pragmatism, an adaptive mind and an ability to lead by example rather than dictat.

*The MRC's mission is to promote and support, by any means, high quality basic, strategic and applied research with the aim of maintaining and improving human health. The MRC is an Equal Opportunities Employer.*

To apply, or for further information, please contact our Recruitment Consultant, **Dr Kevin Young** at: Talentmark Search and Selection, King House, 5-11 Westbourne Grove, London W2 4UA. Phone: 0171-229 2266. Fax: 0171-229 3549. E-mail: Kevin.Young@Talentmark.com



UNIVERSITY OF  
**BATH**

School of Biology  
and Biochemistry

## Research Staff

**3 Postdoctoral Positions - Ref No. 97/122**

**Experimental Officer - Ref No. 97/123**

Applications are invited for the above 5-year posts to join a team engaged in the structural studies on proteins involved in 'Inflammatory processes' in the School of Biology and Biochemistry. The work is supported by an MRC programme grant to Dr K Ravi Acharya starting on 1st October 1997. Two postdoctoral positions are for structural biologists (X-ray crystallography) and the other two posts are for molecular biologists/protein biochemists.

Applicants for the postdoctoral positions should have a PhD in Biophysics, Biochemistry or a related research area. Relevant experience and demonstrated ability in structural molecular biology/protein biochemistry is essential. The initial contract will be for a period of one year and will be renewed subject to satisfactory progress.

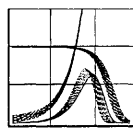
Starting salaries; Postdocs up to £19,371 per annum and Experimental Officer up to £14,799 per annum according to qualifications and experience.

Informal contact may be made with Dr K Ravi Acharya, School of Biology and Biochemistry, University of Bath, Tel. +44-1225-826238, Fax +44-1225-826779 or on the School web site <http://www.bath.ac.uk>.

Closing date for applications is 15th June 1997.

Application forms may be obtained from the Personnel Department, University of Bath, Claverton Down, Bath BA2 7AY or 'phone the 24 hour answer-phone service Tel. +44-1225-826924 (e-mail [A.J.Witcombe@bath.ac.uk](mailto:A.J.Witcombe@bath.ac.uk)) quoting the appropriate reference number.

*Working towards Equal Opportunities*



## Max Planck Institute for Demographic Research

Director: Prof. James W. Vaupel, Ph.D.

### Research Positions

The recently-founded Max Planck Institute for Demographic Research in Rostock, Germany, seeks:

**Research scientists**, with post-1985 PhDs, for 14 positions;  
**Ph.D. fellows**, for 7 positions;  
**Post-doctoral fellows**, for 10 positions.

Applicants should have backgrounds in demography or a related field in the social or biological sciences, mathematics or statistics.

The positions, which will be filled over the next 2-3 years, focus on:

- **Survival and Longevity** - social and biological determinants, for humans and other species;
- **Statistical Methods Development** - New approaches for the analysis of survival and event-history data;
- **Demographic Databases** - Estimation, compilation, validation, management, and analysis; and
- **Demography** - Analysis of the past and present thinking of demographers.

Additional research positions in contemporary European fertility and family dynamics and other areas will be announced later.

Staff will be recruited internationally on the basis of qualifications. Applications from women and persons with disabilities are encouraged. The Institute is bilingual, German and English, with most publications in English. See [www.demogr.mpg.de](http://www.demogr.mpg.de) or write Prof. Vaupel at:

**Max Planck Institute for Demographic Research**  
Doberaner Strasse 114  
D-18057 Rostock Germany



## GLOBAL CAREER OPPORTUNITIES

### SCIENTIST: CELL BIOLOGY

Working in a multidisciplinary research team you will be responsible for the development and implementation of *in vitro* cell- and receptor-based assays for the identification and characterization of new potential therapeutics, the evaluation of drug candidates, and the identification of new biological/therapeutic targets.

The areas of major investigation are in the fields of immunology, in particular inflammation and autoimmunity, endocrinology, in particular reproductive endocrinology and growth. Other areas of interest are oncology and neurobiology.

Requirements for this position include a Ph.D. or equivalent in immunology, biochemistry, cell biology, or related fields. A basic knowledge of PK/PD aspects is desirable. Some industrial experience would be an advantage as well as familiarity with HTS. The candidate should be fluent in English and possibly have a good command of the Italian language.

The successful candidate will have a knowledge of cell biology and of molecular mechanism of drug action. Ability to work productively in a goal-oriented team environment is essential.

Outstanding candidates may be considered for the position of Head of Section, Cell Biology.

### SCIENTIST: EXPERIMENTAL PATHOLOGY

We are seeking a creative scientist who can participate in the discovery and characterization of drugs for the treatment of human diseases. Specifically you will be working in a small team involved in evaluating the *in vivo* general pharmacology of new drugs, developing known and new animal models suitable for the evaluation of new drug candidates and for the discovery of new potential products and in providing the pharmacokinetics and drug metabolism input essential to the discovery and development of new drugs.

The areas of major investigation are in the fields of immunology, in particular inflammation and autoimmunity, endocrinology, in particular reproductive endocrinology and growth. Other areas of interest are oncology and neurobiology.

Qualified candidates will have a Ph.D. degree or equivalent in pharmacology or a related field in the biological sciences. Experience in pharmacokinetics, drug metabolism, and animal models of human diseases are of particular interest. Ability to work in a goal-oriented team environment is essential. Outstanding candidates may be considered for the position of Head of Section, Experimental Pathology.

The Istituto di Ricerca Sero S.p.A (I.R.C.S.) is a multidisciplinary drug discovery institute with activities ranging from basic research to clinical trials. The Institute, located in the countryside 25 km south of Rome, Italy, is part of the Ares-Serono Group of companies.

The Ares-Serono Group is a leading Swiss developer and marketer of pharmaceutical products with executive headquarters in Geneva, Switzerland. World leader in the treatment of infertility, Ares-Serono is also active in the fields of growth, metabolism, and immunology/oncology. With seven recombinant products under development, Ares-Serono is one of today's biotechnology leaders.

For confidential consideration we invite applicants to forward a resume with salary requirements to: **Ruben Paoian, Ph.D., Head, Dept. Drug Discovery, Istituto di Ricerca Cesare Serono S.p.A., Via di Valle Caia, 22, 00040 Ardea (Rome) ITALY.** Only those candidates selected for interview will be contacted.



**UNIVERSITY COLLEGE LONDON**  
**Centre for Molecular Medicine**

## Two Postdoctoral Positions

### Signal Transduction, Protein Chemistry, Mass Spectroscopy

Applications are invited from all suitably qualified persons for two posts available from September 1997 on a 5 year Wellcome Programme Grant in a laboratory researching the molecular mechanisms involved in electron transport by the NADPH oxidase electron transport chain of neutrophils, macrophages, and other "professional phagocytic cells". Areas of particular interest include the mechanisms of activation by the cytosolic proteins (including kinases and small GTP binding proteins), the sites and mechanisms of interaction of the constituent proteins, and the structure of the flavocytochrome b. Strong collaborative links are maintained with a number of groups active in the protein structure/function and signal transduction fields at UCL and in the Department of Crystallography at Birkbeck College.

One post will investigate the signal transduction pathways involved in activation of the oxidase with particular reference to protein phosphorylation and dephosphorylation and the kinases and phosphatases regulating these processes. The other post will study protein structure and protein/protein interactions in order to understand the organisation of the system and the changes brought about upon activation. A major component of these studies will be the application of mass spectrometry to determine the topology of the flavocytochrome and to identify interacting domains of the associated proteins which will be conducted in collaboration with Professor Al Burlingame. Starting salaries will be £23,150 (including London Allowance) on the RAIL scale.

Applications, including a full CV and the names and addresses of two referees should reach Professor AW Segal, Department of Medicine, UCL, Rayne Institute, 5 University Street, London WC1E 6JJ by 27 June 1997. Enquiries by telephone + 44(0) 171-209-6175, fax + 44(0) 171-209-6211 or email t.segal@med.ucl.ac.uk will be welcome.

*Working towards Equal Opportunity*

## University of Illinois at Urbana-Champaign Urbana, Illinois

### Two Associate Dean Positions, College of Agricultural, Consumer and Environmental Sciences

The College of Agricultural, Consumer and Environmental Sciences includes seven academic departments as well as the Division of Nutritional Sciences and Programs in Veterinary Research and Extension. The College has approximately 250 faculty members, 2,000 undergraduate students, and 650 graduate students. In addition to campus-based specialists, the Illinois Cooperative Extension Service includes a statewide system of more than 500 professionals delivering effective research-based programming to citizens across the state.

#### Associate Dean, Research

The Associate Dean, Research provides leadership and administrative oversight for excellence in the domestic and international research programs of the College and is responsible for management of the research activities of the Illinois Agricultural Experiment Station. The Associate Dean reports directly to the Dean of the College and works closely with the Associate Dean, Academic Programs, and the Associate Dean, Extension and Outreach, as well as the department heads within the College, to encourage and support the development and maintenance of a strong, dynamic research organization.

Required qualifications include an earned doctoral degree and demonstrated excellence in research and scholarship justifying tenure in a department of the College. Desired qualifications include administrative or leadership experience with comprehensive research programs and an understanding of the broad mission of a land grant university.

#### Associate Dean, Extension and Outreach

The Associate Dean, Extension and Outreach provides leadership, vision, and administrative oversight for excellence in statewide programming through the Illinois Cooperative Extension Service. The Associate Dean reports directly to the Dean of the College and shares responsibility with the Associate Dean, Academic Programs, and the Associate Dean, Research, as well as the department heads within the College, to encourage and support the development and delivery of strong, dynamic outreach programs. Required qualifications include an earned doctoral degree and demonstrated academic excellence and scholarship justifying tenure in a department of the College. Desired qualifications include administrative or leadership experience which includes budget and personnel management in extension and public service activities, and an understanding of the broad mission of a land grant university.

Salary is negotiable. These full-time positions are available as soon as suitable candidates have been identified. Send nominations and applications to: **Search Committee for Associate Dean**, c/o David L. Chicoine, Dean, College of Agricultural, Consumer and Environmental Sciences, 101 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801, Attention: Linda Pein, (217) 244-2285

Applications should include a letter describing qualifications and a vision for Research, or Extension and Outreach in the next century, curriculum vitae, and the names, addresses, and phone numbers of five references. To ensure full consideration, applications should be received by July 1, 1997.

**URL: <http://www.aces.uiuc.edu>.**

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

Department of Health and Human Services  
National Institutes of Health • Baltimore, Maryland

**DEPUTY SCIENTIFIC DIRECTOR  
NATIONAL INSTITUTE ON AGING**

**THE POSITION:** The National Institute on Aging (NIA) is seeking applications for the position of Deputy Scientific Director. The NIA is one of the world's largest and most comprehensive institutions in aging research. NIA conducts, fosters, and supports biomedical, social, and behavioral research and training pertaining to aging processes and common problems of older people. The Deputy Scientific Director participates fully with the Scientific Director in 1) planning the overall goals and objectives of the NIA Intramural Research Program (IRP); 2) organizing and managing the laboratories and branches of the NIA IRP; 3) developing and recommending policies for the execution of the NIA IRP; and 4) monitoring, coordinating, and evaluating all aspects of the NIA IRP's progress toward achieving its goals and objectives. This is a Civil Service Position. Starting salary will be commensurate with qualifications and experience of selected candidate. Candidates may be eligible for Physician's Comparability Allowance up to \$20,000 per year. Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

**THE IDEAL CANDIDATE:** Demonstrated scientific leadership and research experience in a basic and clinical research program of national and international standing in an area relevant to aging research. M.D. or Ph.D., or comparable experience and training in one of the biological, behavioral, and/or biomedical sciences.

**HOW TO APPLY:** An application accompanied by a current curriculum vitae and bibliography should be submitted to:

**NATIONAL INSTITUTE ON AGING, GERONTOLOGY RESEARCH CENTER, ATTN: PERSONNEL OFFICE, BOX 26, 4940 EASTERN AVENUE, BALTIMORE, MARYLAND 21224-2735.**

**Applications must be postmarked by June 30, 1997 and received by close of business July 7, 1997.** For further information contact the NIA Personnel Office at (410) 558-8118.

NIA is an Equal Opportunity Employer

**GLOBAL CAREER OPPORTUNITIES**

**The Physics Department  
of the  
Technische Universität München  
invites applications for the position of a  
Full Professor in Experimental Physics**

The Physics Department comprises 16 laboratories for experimental physics and 7 chairs for theoretical physics. The Technical University has started to build a new highflux neutron source (FRM-II) to become operational in 2001/2002. Focus is therefore basic research with neutrons, development of innovative instruments and opening of new fields of applications for neutrons. The candidate (successor of Prof. W. Gläser) should have leadership abilities and is expected to participate in the Directors Board of FRM-II.

Teaching assignments will include introductory physics courses, lectures and seminars in neutron physics and related topics. For full consideration the candidate must have an established track record of excellence, Ph.D. degree, high pedagogic capacities and should be younger than 52 years.

The Technical University Munich would like to increase the number of women employed and therefore encourages qualified women to apply. Applications from disabled persons with appropriate qualifications are welcome. Formal applications should include a comprehensive curriculum vitae, a list of publications, description of research interests as they would be carried out with the future neutron source and should be sent before July 31, 1997, to:

**Dekan der Fakultät für Physik  
Technische Universität München  
James-Frank-Strasse  
D-85747 Garching  
Germany**

For more information on the Technische Universität München, the physics Department and the project FRM-II see [www.physik.tu-muenchen.de](http://www.physik.tu-muenchen.de) and [www.tu-muenchen.de](http://www.tu-muenchen.de).

**GLOBAL CAREER OPPORTUNITIES**



**ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE**

The Swiss Federal Institute of Technology Lausanne (EPFL)  
invites applications for the four following positions of

**ASSISTANT PROFESSOR in**

**ENVIRONMENTAL ENGINEERING  
at the Rural Engineering Department**

The new collaborator will have teaching and research responsibilities for environmental biotechnology, particularly in modern biological treatments of industrial effluents. He/she must have the necessary skills within a pluridisciplinary team to develop new technologies of intensive treatments designated to biodegrade xenobiotic compounds in liquid or gaseous industrial effluents at their point of emission.

**SOIL MICROBIOLOGY APPLIED TO THE  
MANAGEMENT AND REMEDIATION OF DEGRADED  
SOILS**

**at the Rural Engineering Department**

The new collaborator will have to develop high-level research and teaching in the following areas: soil microbiology, biological detoxication of contaminated soils, qualitative remediation of degraded soils by restoration of biodiversity, operational management of unstable anthropic soils. He/she must have outstanding qualities as an experimenter and model developer. The scientific approach will be the one of an engineer able to create, realize and manage projects at a very high level.

**BIOMATERIALS**

**at the Materials Science Department**

The new collaborator should have a high level of academic training with background both in materials science and engineering and medical/paramedical fields with knowledge of the interaction between synthetic materials and human tissue. He/she should have proof of his/her originality and ability through scientific publications of the highest level, for example in biomaterials research.

**CHEMICAL ENGINEERING  
at the Chemistry Department**

The new collaborator is expected to develop high level activities in the area of Multifunctional Processes/Reactors. He/she should have a strong interest in the teaching of chemistry and chemical engineering both at undergraduate and graduate levels.

For the four positions: the activities will take place within the concerned Departments and will also involve other units of the EPFL as well as other Swiss and International academic institutions and manufacturers. An aptitude for teaching to students of graduate and undergraduate level and for conducting original and high-level research projects is essential. The new collaborators will also be called on to supervise and guide students on semester projects, on engineering degrees and Ph.D. degree work. They should possess a confirmed skill in leading projects. Candidates are invited to propose and send an original research program together with their application. Applications are encouraged from people who fulfill the requirements of the Swiss program for ensuring the continuity of competent university faculty. *Deadline for applications: September 26, 1997.* Starting date: as mutually convenient.

*Applications from women are particularly welcome.* For further information, please ask for the documentation and the application form by writing to: **Présidence de L'École polytechnique fédérale de Lausanne, CE-Ecublens, CH 1015 Lausanne, Switzerland.**



# UNIVERSITY OF CALIFORNIA SAN FRANCISCO

## CORPORATE SCHOLARS PROGRAM

The **Molecular Design Institute** of the University of California San Francisco announces the **UCSF Corporate Scholars Program** for **scientists and managers from pharmaceutical and biotechnology companies**. This prestigious and customizable program fosters the interaction of a select group of Corporate Scholars and their sponsoring companies with UCSF faculty.

The **1997-98 Corporate Scholars Core Program in Structure-Based Drug Design** will bring Heads of CAMD or Drug Discovery, or managers starting Drug Discovery groups to UCSF for extended interchanges with faculty in molecular modeling, molecular calculations, and structural biology. UCSF has outstanding expertise in these and related fields impacting drug discovery and development.

- Three week tutorial (March 1998) provides current status of structure-based drug design, case studies, hands-on use of selected software, and UCSF laboratory rotations; prior use of computational software is assumed. The interdisciplinary drug discovery process is addressed; the collective experience of the Corporate Scholars enriches the learning experience.
- Visit-in-residence outside the course provides individual interaction with a specific UCSF laboratory.
- Multiple company scientists participate in UCSF/MDI scientific meetings.
- Company management visits UCSF hosted by MDI.
- Sabbaticals and extended visits-in-residence may be arranged.

For companies who join the CSP in 1997, first year benefits begin immediately and continue through 1998. These include scientific meetings on **"Computational Methods in Combinatorial Chemistry"** in October '97 and **"Molecular Recognition: Docking and Scoring"** in February '98 with speakers and participants from industry and academia. Future meeting topics include proteases, parasitology, bioinformatics, and gene delivery.

For more information, please contact Professor I.D. Kuntz, Director of the Molecular Design Institute or Dr. Judith C. Hempel, Director of the Corporate Scholars Program (tel 415/502.8396, fax 415/502.8397, [jhempel@cgl.ucsf.edu](mailto:jhempel@cgl.ucsf.edu)). CSP membership is (US)\$25,000 per year with a 3 year commitment to the program. An affiliates program is available. Enrollment is limited.

<http://mdi.ucsf.edu>

## BIOCHEMISTRY

Resulting from the merger of Sandoz and Ciba, Novartis Crop Protection, Inc. continues as a leader in developing, manufacturing and marketing agrichemicals. We are seeking qualified scientists to join our Biochemistry department to discover novel target sites and leads for crop protection.

### FUNGICIDES/DISEASE CONTROL

The successful candidate will possess a Master's degree in biology and/or biochemistry of phytopathogenic fungi with 3-5 years' experience working with fungal pathogens. As a team member responsible for the initiation and development of research projects involving fungal enzymology and protein biochemistry and application of the information in discovery efforts, the successful candidate should have a good understanding of fungal genetics and molecular biology and the ability to effectively interact and work with a team of chemists, molecular biologists and biologists.

### HERBICIDES

The selected candidate will join a multidisciplinary team to discover novel target sites utilizing genomics, biochemistry, chemistry and biology. This position requires a PhD in biochemistry with 2+ years of postdoctoral experience. Experience and a strong background in enzyme purification, characterization and kinetics are essential. Thorough knowledge of plant metabolism and physiology is desirable. Working knowledge and/or experience in one or more of the following areas is an asset: molecular genetics, cloning, bioinformatics and organic chemistry.

For consideration, send CV and names of three references to Novartis Crop Protection, Inc., Human Resources Department, 975 California Avenue, Palo Alto, CA 94304-1104. AA/EOE.

 **NOVARTIS**

American Heart  
Association<sup>SM</sup> 

## ECC Director of Science

The Emergency Cardiac Care Department of the American Heart Association is seeking a professional to manage committees that set the guidelines for ECC and prepare educational materials for the program. Will also review and evaluate current materials and new products.

Qualified candidates will have training in one of the health care disciplines or the basic medical sciences. An advanced degree will be given consideration, but is not necessary. Experience teaching AHA courses is a plus, but is not essential. Evidence of professional progression with increasing levels of responsibility must be shown.

We offer a competitive salary and benefits in a "smokeless environment". Please send resume with salary requirements by June 13th to: **American Heart Association, HR-ECC, 7272 Greenville Ave., Dallas, TX 75231; fax: (214) 706-1191; or email: [glo-riab@amhrt.org](mailto:glo-riab@amhrt.org). Visit our homepage at [www.amhrt.org](http://www.amhrt.org). EOE M/F/V/D**

## POSITIONS OPEN

### POSTDOCTORAL ASSOCIATE

The Developmental Hybridoma Bank (<http://www.uiowa.edu/~dshbwww>) was created in 1986 to supply monoclonal antibodies, produced by hybridomas deposited by investigators, to the scientific community at a nominal charge. A postdoctoral position is available to generate new hybridomas that would be useful for studies in developmental and cell biology. Requires a Ph.D. in cell biology or related field. Extensive experience in one or more of the following areas is desirable: immunology, hybridoma technology, immunohistochemistry, immunobiochemistry and protein purification. Send curriculum vitae and names of three references to: **Dr. David Soll, Department of Biological Sciences, 138 Biology Building, The University of Iowa, Iowa City, IA 52242-1324.** The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

### BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH AT CORNELL UNIVERSITY

**POSTDOCTORAL POSITION** available immediately in functional genomics. Candidates must have experience in DNA recombination/repair mechanisms and characterization of associated proteins. Interested applicants should send curriculum vitae and names of three references to: **Gregory D. May, Ph.D.,** at the address below.

**POSTDOCTORAL POSITION** available immediately in plant hydraulic architecture, stomatal behavior, and productivity. For details please see the BTI website at <http://bti.cornell.edu/hr/postdoc.opp.html>. Interested applicants should send curriculum vitae and names of three references to: **Jonathan Comstock, Ph.D., Boyce Thompson Institute, Tower Road, Ithaca, NY 14853.** An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION MOLECULAR BIOLOGY/ DNA DAMAGE REPAIR

Postdoctoral position available July 1 in the Department of Radiation Oncology to study DNA damage and recombination. Highly motivated candidates with an interest in improving gene therapy are encouraged to apply. Experience in molecular biology, tissue culture, DNA recombination and virus/plasmid construction. Send curriculum vitae and the names and addresses of three references by mail or Email to: **Dr. Craig Stevens, Department of Radiation Oncology, 2 Donner, University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104-4283.** Email: [stevens@xrt.upenn.edu](mailto:stevens@xrt.upenn.edu). The University of Pennsylvania is an Equal Opportunity Employer.

### POSTDOCTORAL POSITION AVAILABLE

Three years of support are available for postdoctoral research focused on analysis of transgenic mice that develop neurodegeneration as a consequence of altered SOD expression. Molecular biology background is preferred. Send curriculum vitae to:

**Jon W. Gordon, M.D., Ph.D.**  
Mount Sinai Medical Center  
Department of OB/GYN - Box 1175  
1 Gustave L. Levy Place  
New York, NY 10029  
FAX: 212-369-3090  
Email: [jgordon@smtplink.mssm.edu](mailto:jgordon@smtplink.mssm.edu)

Position to begin August 1, 1997.

**POSTDOCTORAL POSITIONS** in cardiovascular biology with a neuroscience focus. Applicants must have a M.D. or Ph.D., an excellent academic background, and experience with molecular biological techniques. Review of applications begins July 15, 1997. Send curriculum vitae and names of three references to: **Mariana Morris, Ph.D., Wright State University School of Medicine, Department of Pharmacology and Toxicology, P.O. Box 927, Dayton, OH 45401-0927.** Wright State University is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available to study interactions of antibodies with influenza virus glycoproteins. Experience in molecular biology and protein structure-function relationships with virology and/or immunology is desirable. Send curriculum vitae and names of three references to: **Dr. Gillian Air, Department of Biochemistry and Molecular Biology, BMSB 840, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190.** Email: [gillian-air@uokhscc.edu](mailto:gillian-air@uokhscc.edu).

## POSITIONS OPEN

A **POSTDOCTORAL** position is available at the Massachusetts General Hospital, Harvard Medical School, to study transcriptional mechanisms of neuron-specific gene expression. Project will focus on the identification and functional characterization of forebrain-specific transcription factors involved in the specification of different neural phenotypes. Ongoing research includes study of forebrain-specific homeodomain proteins. Extensive use is made of immortalized clonal neuronal cell lines established in our laboratory from different forebrain structures of embryonic rats. Candidates should have an M.D. or Ph.D. degree. Experience in molecular biology is preferred and would be an advantage. *U.S. permanent residency or U.S. citizenship required.*

Applicants should send a curriculum vitae and three letters of recommendation to: **Mario Vallejo, M.D., Ph.D., Reproductive Endocrine Unit, Massachusetts General Hospital, Boston, MA 02114.**

**POSTDOCTORAL POSITION** available in Bethesda, Maryland to study two newly found proteins involved in human pre-mRNA splicing (see *Genes & Dev.*, 11:139-151, 1997). Planned projects include the initial characterization of a new splicing protein and study of the components of the spliceosome and their interactions during the second catalytic reaction of splicing. Experience using standard molecular biology techniques is essential; some experience in protein purification and/or *in vitro* RNA work is desirable. Send curriculum vitae including the names of three references to: **Dr. David Horowitz, Department of Biochemistry, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814.** Telephone: 301-295-3539; FAX: 301-295-3512. Email: [horowitz@cshl.org](mailto:horowitz@cshl.org). USUHS is an Equal Employment Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITIONS IN ENDOCRINE TRANSGENIC MOUSE RESEARCH

Postdoctoral positions are available immediately in the Departments of Physiology and Biochemistry to work on transgenic mice which overexpress IGFBP-1 and -3, IGFBP-3 knockout mice, and expression of estrogen receptor variants in transgenic mice. Applicants should have a Ph.D., M.D. or equivalent and experience in molecular biology. Preference will be given to applicants with previous research experience in the IGF or estrogen receptor field. Suitable candidates should send their curriculum vitae to: **Dr. L. Murphy, University of Manitoba, Department of Physiology, Room 435, 730 William Avenue, Winnipeg, Manitoba R3E 3J7.** FAX: 204-774-7751.

### POSTDOCTORAL POSITION MOLECULAR NEUROSCIENCE JOHNS HOPKINS UNIVERSITY

Position available to study neurodegeneration and novel messengers. Investigations will involve cloning novel genes, development of gene transfer technology (viral and stem cell), and expression of genes in neural systems. Please send curriculum vitae and inquiries to: **Drs. Valina and Ted Dawson, Department of Neurology, Johns Hopkins University School of Medicine, 600 North Wolfe Street-Path 210, Baltimore, MD 21287.** Email: [ted\\_dawson@gmail.bus.jhu.edu](mailto:ted_dawson@gmail.bus.jhu.edu). Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL** position is immediately available to investigate the mechanism(s) by which intestinal and neuro peptides modulate intestinal epithelial cell proliferation and differentiation. A strong background in molecular biology, protein chemistry and cell biology is highly desirable. Please forward a curriculum vitae and names and addresses of three referees to: **Dr. Gregory W. Aponte, Department of Nutritional Sciences, University of California, Berkeley, CA 94720-3104.**

## CONFERENCE

**THERAPEUTIC ANTIBODY TECHNOLOGY 97**, Sept. 21-24, 1997; Holiday Inn-Union Square, San Francisco; Organizers: **J. Larrick, D. Burton.** Sponsor: **Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043.** Telephone: 415-694-4996; FAX: 415-694-7717; Email: [paimm@netgate.net](mailto:paimm@netgate.net); See *Science* May 2, 1997 for speakers.

## POSITIONS OPEN

### POSTDOCTORAL ASSOCIATE

Position available to study the cell biology of HIV infection in T-cell lines, peripheral blood T-cells, and lymph node tissue. Related projects include using 3D-Dynamic Image Analysis System (developed in this laboratory) to study syncytia formation, chemotactants, and chemokines in the pathogenesis of AIDS (See *J. Immunology*, 158:3996-4007, 1997). Requires a Ph.D. in cell biology or related field. Extensive experience in one or more of the following areas is highly desirable: virology, immunology, tissue culture, molecular biology, and immunohistochemistry. Send curriculum vitae and names of three references to: **Dr. David R. Soll, Department of Biological Sciences, 138 Biology Building, The University of Iowa, Iowa City, IA 52242-1324.** The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

## COMPUTER MARKETPLACE

### ProCite®

Redefining One-Step Bibliographies

Visit our Website for demo  
<http://www.risinc.com>

Research Information Systems  
800/722-1227-760/438-5526-Fax: 760/438-5266  
E-mail: [sales@risinc.com](mailto:sales@risinc.com)

Circle No. 43 on Readers' Service Card

## QuantiScan for Windows

Scan gels, autoradiographs, TLC plates etc then automatically or manually mark lanes [skewing no problem], fit peaks, subtract background and calculate peak areas. Separate module for blots. Only \$399  
DEMO: call 314-524-8029; email [info@biosoft.com](mailto:info@biosoft.com)  
In Europe: call +44 (0)1223 368622

Circle No. 47 on Readers' Service Card

## MARKETPLACE

### MMP-1, MMP-2, MMP-3

Elisa kits and antibodies

1-800-633-4484

The Binding Site, Inc.

5889 Oberlin Dr. Suite 101

San Diego, CA 92121

Fax: 619-453-9189



Circle No. 46 on Readers' Service Card

## DNA PEPTIDES

70¢  
per base

5-10 OD  
No Set-Up Fee

\$15  
per residue

Quantity 15  
to 40 mg



**DNA Markers  
Oligo Mapping Kits**

**GENEMED SYNTHESIS**  
1 (800) 344-5337 • Fax (415) 952-9540  
<http://www.genemedsyn.com>

Circle No. 13 on Readers' Service Card



# MARKETPLACE



**MORE PRODUCTS  
ON PREVIOUS PAGE**

## CUSTOM ANTIBODIES TO PEPTIDES AND PROTEINS

- Purification • Conjugation
- ELISA Titration



HTI BIO-PRODUCTS, INC.

Phone (800) 481-9737

Fax (619) 788-9694

e-mail antibodies@htibio.com

http://www.htibio.com

Circle No. 23 on Readers' Service Card

## Tubulin Antibodies

γ TUBULIN (XGC32)

NEURON SPECIFIC β-TUBULIN (TUJ1)

TUBULIN & ASSOCIATED PROTEINS (TU27)



BERKELEY ANTIBODY COMPANY

800-922-2226

product@babco.com

www.babco.com

Circle No. 53 on Readers' Service Card



High Quality Synthetic DNA

**200 nanomole, \$1.00 per base, NO-SETUP**

10% DISCOUNT IF PAID BY CREDIT CARD; DISCOUNT FOR LARGE CONTRACTS

1-800-249-7841/610-993-9323, Fax: 610-993-9464

E-Mail: orders@dnagency.com

Circle No. 40 on Readers' Service Card

## MPCR

Custom Multiplex PCR Optimization !!

**Primer Design, Synthesis and Optimization**

Up to 5 pair primers with a low price at \$3.00/ MPCR Reaction  
MPCR/RT-MPCR\* of Human, Mouse, and Rat (\*restriction applied)  
Fast Deliver & Performance Guarantee

800-989-6296  
MBI Maxim Biotech, Inc. mbi@maximbio.com

Circle No. 42 on Readers' Service Card

Please call **SCIEN TECH CORP.** for

1. Highly Sensitive p53-based Anti-Apoptosis Assay Kit
2. Primary Baby Rat Kidney (BRK) Cells
3. Custom Adenovirus Vector Construction for Gene Therapy & Mammalian Gene Expression

T: 1-800-645-0089 F: 314-645-0177

Circle No. 18 on Readers' Service Card

**NEW for 1997**

Cell Systems

Serum-Free Human Cell Systems

Dermal Melanocyte Cells

1-800-697-1211

www.cellsystems.com

Circle No. 10 on Readers' Service Card

# MARKETPLACE

Custom Primers - 48 hr turnaround: \$1.00/base  
5 ODU - Standard Purity - Ready to Use



ransom hill bioscience, inc.

http://www.ransomhill.com

no setup - no minimum - no baloney!

Internet: visla@ix.netcom.com fax: (800) 597-8509

Circle No. 9 on Readers' Service Card

**XX IDT**  
INTEGRATED DNA TECHNOLOGIES, INC.

Custom DNA Synthesis

**95¢ / Base**

100 nmole Scale

No Set-up Fee

Column Purified

24 Hour Shipping

Ask about our  
group discount programs!

E-mail: orders@idtdna.com

Web Site: http://www.idtdna.com

Fax: 1-319-645-2921

Phone: 1-800-328-2661

Circle No. 5 on Readers' Service Card

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.

**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@oligos.com

Circle No. 6 on Readers' Service Card

Widely  
Recognized  
Original &  
Guaranteed

**KlenTaq1**

8¢/u

Truncated

Taq DNA

Polymerase

Withstand 99°C

US Pat # 5,436,149

Call: **Ab Peptides** 1-800-383-3362

Fax: 314-968-8988 abpeps@icon-stl.net

Circle No. 3 on Readers' Service Card



Custom Polyclonal Antibodies

BEST PRICES • BEST ANIMALS

ANIMAL PHARM SERVICES

INCORPORATED

(800) 808-0550

Circle No. 21 on Readers' Service Card

# MARKETPLACE

## EASY WEB ORDERING

http://www.biosyn.com

biosyn@onramp.net

CUSTOM **PRIMERS**  
PURIFIED

NO SET UP FEES  
**65¢**  
/base

50 nmole  
Full QC  
Guaranteed Quality  
Just order > 400 bases  
at the same time

CUSTOM **PEPTIDES**  
FREE MASS SPEC

NO SET UP FEES  
**15**  
/residue

10-20 mgs  
8-15 residues  
Shipped in 5 days

**ANTIPEPTIDES ANTIBODY  
PRODUCTION SERVICES & MORE**

**BIO-SYNTHESIS**

TEL: 800-227-0627 FAX: 972-420-0442

Circle No. 7 on Readers' Service Card

## MACROMOLECULAR RESOURCES

Oligonucleotides \$1/base-\$5 setup fee  
DNA Sequencing \$30/analysis

Free Sample for  
New Accounts!

**DNA EXPRESS**

Peptides \$25/residue  
Mass Spec \$30/analysis  
Protein Sequencing \$30/cycle

TEL: 1-800-491-0424 FAX: 1-800-436-2329  
http://mmr.bmb.colostate.edu macromolres@mmr.bmb.colostate.edu

**PEPTIDE EXPRESS**

Macromolecular Resources supports the education, research and public service missions of Colorado State University

Circle No. 50 on Readers' Service Card

**PEPTIDE + ANTIBODY**  
**HIGH QUALITY \$1200**  
β-AMYLOID(1-40) \$200/mg  
**ANASPEC**  
800-452-5530 // service@anaspec.com

Circle No. 15 on Readers' Service Card

**Site-Directed  
Mutagenesis**  
as low as \$500

1-800-654-4671

http://www.ana-gen.com

**ANA-GEN**

Ana-Gen Technologies, Inc.

Circle No. 28 on Readers' Service Card

**Custom DNA**  
Purified & Delivered in 48 Hours  
**\$1.20 per base • Purified**  
http://www.resgen.com  
**Research Genetics, Inc.**  
1-800-533-4363

Circle No. 4 on Readers' Service Card



# A TASTY REDUCTION IN THE PRICE OF ZUCCHANA.



**Zucchini**  
**60¢**  
per base

## SUCH A DEAL ON DNA. JUST 60¢ A BASE.

Attention shoppers. You don't have to settle for second best, to save a bunch. Buy the Zucchini, and you get both price and quality. No compromises.

Operon now makes custom DNA on the 0.05  $\mu$ mole scale for just 60¢ per base, with a \$5 set-up fee. Larger scales are also very affordable.

We offer a complete range of modifications, so you can enjoy "one-stop-shopping" for all your custom DNA needs. And at Operon, you can order by phone, fax, e-mail or just visit our

web site at [www.operon.com](http://www.operon.com). Shopping for custom DNA has never been easier.

Fast turnaround, high purity, unconditional

guarantee, and great prices. No wonder Operon is the market leader in custom oligos. So if you're in the market for DNA, put the Zucchini on your shopping list today! Operon. Anything is possible.

Custom DNA Synthesis Prices

Scale	Price/base	Set-up
0.05 $\mu$ mole	\$0.60	\$5.00
0.2 $\mu$ mole	\$1.20	\$10.00
1.0 $\mu$ mole	\$2.40	\$20.00



WORLD'S LEADING SUPPLIER OF SYNTHETIC DNA

Phone: (800) 688-2248 or (510) 865-8644 • Fax: (510) 865-5255 • e-mail: [dna@operon.com](mailto:dna@operon.com) • Web: <http://www.operon.com>

©1996 Operon Technologies, Inc., 1000 Atlantic Avenue, Alameda, CA 94501, USA. NIHBP 263-00033233

Circle No. 31 on Readers' Service Card



# Enter A New World of Performance

With the *BioMax* Family of Films . . .

## **BioMax MS film/screen for Maximum Sensitivity**

Utilizing advanced emulsion technology, *BioMax* MS film optimally detects the 540 nm wavelength light emitted by the *BioMax* MS intensifying screen to provide 4 to 8 times increased sensitivity for detection of  $^{32}\text{P}$  and  $^{125}\text{I}$  labeled samples.

## **BioMax MR film for Maximum Resolution**

The advanced *BioMax* MR emulsion, coated on only one side of the film, delivers maximum resolution of images on a clear background. The film also yields maximum sensitivity for detection of  $^{35}\text{S}$ ,  $^{33}\text{P}$ , and  $^{14}\text{C}$ .

## **BioMax Light film for Chemiluminescence**

Designed specially for detection of chemiluminescent-labeled samples to provide maximum clarity and sensitivity.

## and *BioMax* Intensifying Screens

### **BioMax MS intensifying screen for $^{32}\text{P}$ and $^{125}\text{I}$**

For use with all films to provide a two-fold increase in sensitivity compared to other conventional intensifying screens. Maximum sensitivity achieved in combination with *BioMax* MS film.

### **BioMax TranScreen - LE for $^3\text{H}$ , $^{35}\text{S}$ , $^{33}\text{P}$ , $^{14}\text{C}$**

Introducing the first intensifying screen for detection of low-energy isotopes. Use with *BioMax* MS film to achieve sensitivity comparable to direct detection but in one-sixth the time.

For more information, contact your local distributor or Kodak Scientific Imaging Systems at 1-800-225-5352 or 716-722-5813 in the U.S., or +44 (0) 1223 242813 in the U.K. Or visit us on the Worldwide Web at <http://www.kodak.com>.

Circle No. 45 on Readers' Service Card

KODAK, BIOMAX and TRANSCREEN are trademarks. ©Eastman Kodak Company, 1997

XAR film/  
L+ screen  
BEFORE  
72 hours



*BioMax* MS  
film/screen  
NOW  
16 hours



*BioMax* MR film



Australia/NZ Integrated Sciences Ltd. +61 (0) 2 94177866  
Austria INTEGRA Biosciences AG +41 (0) 1 830 22 77  
Belgium INTEGRA Biosciences AG +41 (0) 1 830 22 77  
•Sigma-Aldrich +32 (0) 3-8991301  
•Amersham +32 92415270  
Canada InterSciences Inc. (905) 940-1831 or (800) 661-6431  
•VWR Canlab (905) 813-7377 or (800) 565-2051  
•Amersham (416) 847-1166  
Denmark Struers KEBO Lab A/S +45 45 86 87 88  
•Amersham +45 4582022  
Finland KEBO Lab OY +358 (9) 0804 551  
France INTEGRA Biosciences S.A. +33 (1) 39 59 84 42  
•Sigma-Aldrich +33 74-82 28 00  
•Amersham +33 (1) 69182800  
•Polyabo +33 88 65 80 20  
Germany INTEGRA Biosciences GmbH +49 (0) 6404 8090  
•Sigma-Aldrich +49 (0) 89-6513-0  
•Amersham +49 (0) 53079300  
Hong Kong Amersham +852 28021288  
India Amersham +91 (011) 3322470  
Israel TAMAR Ltd. +972 (0) 2 6 520 279  
Italy M-Medical srl +39 (0) 55 5501871  
•Sigma-Aldrich S.r.l. +39 (0) 2 33417-310  
•Amersham +39 (0) 2 5088220  
Japan Cosmo Bio Co. Ltd. +81 (0) 3 5632 9610  
•Amersham +81 (0) 3 5992 2828  
Korea LRS Labs +82 (0) 2 924 86 97  
•Amersham +82 (0) 2 569 2218  
Netherlands INTEGRA Biosciences AG +41 (0) 1 830 22 77  
•Sigma-Aldrich +31 (0) 78 6205411  
Norway KEBO Lab AS +47 (0) 22 90 00 00  
•Amersham +47 67546318  
Singapore Research Instruments Pte. Ltd. +65 775-7284  
Spain Quimigranal s.a. +34 (9) 1 556 16 14  
•Amersham +34 (9) 13044200  
Sweden KEBO Lab AB +46 (0) 8 621 34 00  
•Amersham +46 (0) 84447180  
Switzerland INTEGRA Biosciences AG +41 (0) 1 830 22 77  
•Sigma +41 (0) 81 755 2721  
•Amersham +41 (0) 13157050  
Taiwan Long Chain +886 2 552-2605  
United Kingdom Anachem Ltd. +44 (0) 1582 456666  
•Sigma-Aldrich +44 (0) 1202 733114  
•Amersham +44 (0) 1494544000  
United States Sigma (314) 771-5750 or (800) 325-3010  
•WVR Scientific (800) 932-5000  
•Amersham (800) 323-9750  
•Fisher Scientific (800) 766-7000

