

# The POWER<sup>of</sup> 2

## LaserTweezers<sup>®</sup>

## LaserScissors<sup>™</sup>

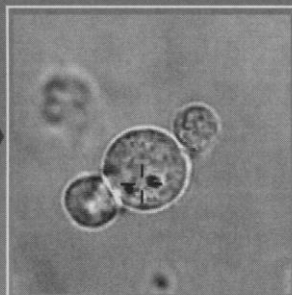
### NEURAL NETWORKING

LaserScissors microdissects the neurite extending from a salamander photoreceptor cell with short pulses of UV laser light.



### CELL/CELL INTERACTION

Natural killer cells are brought into contact with a cancer cell using the LaserTweezers to promote functional conjugates.



### LASER ASSISTED REPRODUCTION

A sperm captured with the LaserTweezers is introduced in the perivitelline space of a human oocyte through a cut in the zona pellucida made with the LaserScissors.



### CHROMOSOME MICRODISSECTION

Microdissection of metaphase chromosomes is performed with the LaserScissors.



2715 Broadbent Pkwy NE  
Albuquerque, NM 87107  
(800) 846-0590  
(505) 343-1131 Ext. 247  
Fax: (505) 344-8112  
EMAIL 764.33.2031 @compuserve.com

Circle No. 96 on Readers' Service Card

NEW!  
Version 4.5



## IT'S *about* TIME

**S**tatView is about time.  
Saving time - your time.

Since 1985, StatView's been the best selling data analysis software on the Macintosh. Why? Because StatView's easy. Easy to learn. Easy to use.

In less time than it takes to learn most data analysis programs, you get your results with StatView.

StatView is designed to work with you. The software's flexible and intuitive interface allows you to analyze data the way you want to.

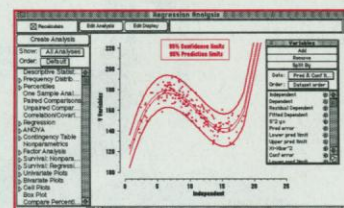
StatView features fully integrated statistics, data management, graphing and presentation tools - all the tools you need to get your work done.

And with StatView, your time is never wasted.

StatView's innovative templates allow you to save all your work simply by saving the document. You can open that template at any time to resume your analysis. Or apply it to any other data set.

Whether you need to analyze data on a daily basis or only every couple of months, StatView's unprecedented ease of use will save you time and effort.

Isn't it about time you used StatView?



Creating an analysis is as easy as clicking your mouse.

FOR MORE INFORMATION CALL  
1 - 800 - 666 - STAT

**ABACUS**  
CONCEPTS  
THE SIGNIFICANT DIFFERENCE<sup>™</sup>

1918 Bonita Avenue, Berkeley, CA 94704-1014

Phone: 510-540-1949, Fax: 510-540-0260

Internet: info@abacus.com



We have localized, international and student versions of StatView and license, academic and quantity discounts. Call for more information.

Circle No. 56 on Readers' Service Card



# ISCAN®

## EYE MOVEMENT MONITORING SYSTEMS

ISCAN eye tracking products set the pace for performance and affordability in the research marketplace. Applications include fixation monitoring, vision research, advertising research, psycho-visual experiments, reading studies, toxicology, human factors evaluation and drug or alcohol response.

Non-invasive, real-time video image processors automatically measure pupil position and size and compute subject's point of

gaze. Benchtop, head mounted and high speed versions as well as computer data analysis software are available. Complete Eye Movement Monitoring Laboratories or component systems can be provided to suit any research application.

ISCAN, Inc.  
P.O. Box 382076  
Cambridge, MA 02238-2076 USA  
Tel: 617-273-4455 Fax: 617-273-0076

Circle No. 21 on Readers' Service Card



## Lab Standard® 51600

**\$2,595\***

### The Quality Standard in Stereotaxic Instrumentation

Readily adapts to most small animals  
Rugged U-frame design ensures stability and alignment  
Single and dual manipulator models

**New Adapters** for neonatal rats and gas anesthesia

**Call (708) 860-9700, FAX: (708) 860-9775**  
\*\$2,895 outside the US and Canada. Shipping and insurance included on pre-paid foreign orders.

Manufactured by  
**STOELTING**

Stoelting Co., 620 Wheat Lane  
Wood Dale, IL 60191 USA  
**(708) 860-9700**

Circle No. 27 on Readers' Service Card

## The "Gold Standard" in Hematopoietic Culture Reagents

- Methylcellulose-based media for colony assays of hematopoietic progenitors
- Long-term culture media for assays of the most primitive progenitors
- Pre-selected Sera and Serum Substitutes
- Pre-tested Tissue Culture Supplies

### ClonaCell™-HY

Faster and more efficient than conventional methods for generating hybridomas

HAT selection and cloning of hybridomas are performed in a single step

**No more limiting dilutions!**

### StemSep™

The Simpler, Cleaner Alternative

Lineage Depletion one step magnetic cell separation

Cells are never labeled with antibody  
Reproducibly high recoveries (70%-85%) of CD34<sup>+</sup> cells

In Canada and the U.S. available direct from:



**StemCell Technologies Inc**

808 - 777 West Broadway  
Vancouver, BC  
Canada V5Z 4J7  
Tel: (604) 877-0713  
Fax: (604) 877-0704  
Toll Free Tel: 1-800-667-0322  
Toll Free Fax: 1-800-567-2899

#### International Distributors

- **Australia:** AMRAD Pharmacia Biotech Ltd., Tel: 008-252-265, Fax: 03-9887-3912
- **Austria:** CellSystems, Tel: 02228-8057, Fax: 02228-8555
- **Czech Republic:** LV-BIOMED, Fax: 02-2491-1011
- **France:** TEBU, Tel: 1-34 84 62 52, Fax: 1-34 84 93 57
- **Germany:** CellSystems, Tel: 02228-8057, Fax: 02228-8555
- **Greece:** ANTI-SEL, Tel: 031-322 525, Fax: 031-321 912
- **Italy:** FORMEDIC, srl Tel: 02-58001, Fax: 02-502269  
SPA, BioSPA Division, Tel: 02-89139-533/547, Fax: 02-8132983
- **Japan:** Veritas Corp., Tel: 03-3435-1558, Fax: 03-3435-1526
- **Korea:** Bio-Medical & Science Co. Ltd., Tel: 02-569-6902, Fax: 02-553-9670
- **The Netherlands:** ITK Diagnostics bv, Tel: 02975-68893, Fax: 02975-63458
- **Spain:** LABCLINICS, Tel: 03-435-3601, Fax: 03-348-1039
- **UK:** Metachem Diagnostics Ltd., Tel: 01604-870370, Fax: 01604-870194

ALL PRODUCTS ARE FOR RESEARCH USE ONLY

Circle No. 57 on Readers' Service Card





# ELSEVIER SCIENCE

THE  
NEUROSCIENCE  
PUBLISHERS

*Stop by the Elsevier Booths #1301-1306 at the 1995  
Society for Neuroscience to...*



## EXPERIENCE THE LATEST ELECTRONIC PRODUCTS

*Ask for a demonstration of...*

- Neuroscience Protocols
- Interactive Anatomy on CD-ROM
- Vaccine Online
- Elsevier's Encyclopedia of Neuroscience prototype
- OPAL Modules
- The Elsevier Catalog on Internet
- Gene-COMBIS
- Immunology Today Online



## SIGN UP FOR CONTENTSDIRECT

The fastest pre-publication electronic alerting service — **FREE** from Elsevier Science. Sign up to receive the forthcoming contents of your favorite Elsevier neuroscience journal via e-mail approximately 2-4 weeks prior to publication.



## PICK UP A FREE JOURNAL SAMPLE

As always, free sample copies of the many Elsevier neuroscience journals will be yours for the taking.



## READ ABOUT THE LATEST RESEARCH RESULTS IN **BRAINSCAN**!

Pick up a **FREE** copy of **BRAINSCAN**, Elsevier's Neuroscience Current Awareness Service. Each issue will include discount coupons on Elsevier products which can be redeemed on purchases made at the show.



## TAKE A LOAD OFF YOUR FEET

We will once again have a "relaxation area" where you can sit on a sofa and put your feet up after a long tour of the exhibit hall.

*Be sure to stop by for all this and more!*

ELSEVIER SCIENCE INC.  
PO Box 882  
New York, NY 10159  
Fax: (212) 633-3950



ELSEVIER

ELSEVIER SCIENCE LTD.  
The Boulevard, Langford Lane  
Kidlington, Oxford OX5 1GB  
Fax: +44 (0) 1865 843946

WOULDN'T  
FRESH  
TISSUE SECTIONING  
BE

**EASIER** if cutting uniform sections were automatic,

serial sectioning were fully programmable,

ice cubes stayed in the fridge,

a microprocessor would let you devote your attention  
to the quality and retrieval of the sections,

it were all on a menu,

**NOW** satisfaction were assured by on-demand service?

**IT IS!**



**VIBRATOME®**  
SERIES 3000\*

Automated and/or refrigerated fresh/fresh fixed tissue  
sectioning system. No freezing or embedding.

From the helpful, friendly, courteous, kind, cheerful, loyal,  
thrifty, brave, clean and reverent people who brought you  
the original Vibratome, now comes the *ultimate*,  
Vibratome 3000,

functional, versatile, sturdy, dependable, serviceable,  
economical.

\*Replaces the Series 2000. Got one? Call us, we'll help.



TECHNICAL  
PRODUCTS  
INTERNATIONAL, INC.

*The Vibratome® People*

Neuroscience Booth 1217

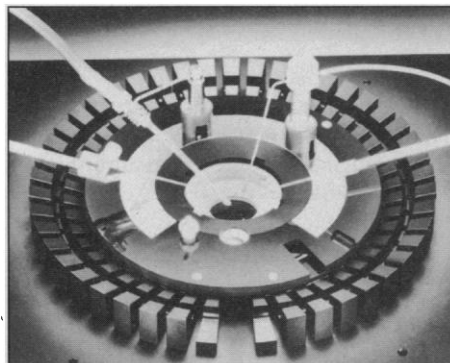
5918 EVERGREEN / ST. LOUIS, MISSOURI 63134 U.S.A. (314) 522-8671 (800) 729-4421 FAX (314) 522-6360  
Circle No. 5 on Readers' Service Card



# PRODUCTS & MATERIALS

## Replication System

The Nunc Replication System consists of products designed for the 384 Well Plate and OmniTray. The products can be used for replication of recombinant DNA libraries, inoculation of filters for colony hybridization, phage typing, and several other applications. Pall Biodyne B nylon membranes are cut to fit the OmniTray for manual or automated arraying directly on a solid support. The 384 and 96 Pin Replicators are for transferring small volumes of inoculum from MicroWell plates to other plates or solid supports. The MicroWell Plate and OmniTray Copiers have a unique set of alignment holes used to guide the replicator pins. They precisely register the pins to agar, hybridization membranes, or the wells of the MicroWell plates. Nunc. Circle 136.



## Open Perfusion Microincubator

The PDMI-2 is a microincubator that maintains cells or tissue on the stage of a microscope. It is heated or cooled by Peltier devices. It operates as an open perfusion chamber and features optical and micromechanical access. Perfusants at room temperature are brought to a selectable set-point temperature within the microincubator itself. Medical Systems Corp. Circle 139.

## Statistical Analysis Software

Derwent InfoView software is designed to enable users to perform statistical analysis more rapidly and efficiently. The software converts structured data files into manageable and useful information. Once the conversion is complete, the analysis can be displayed in easy-to-read graphs and charts that can be printed, downloaded, or exported to other software programs. The complexity of the analysis is up to the user. The program runs under Microsoft Windows. Derwent Information. Circle 137.

## IgG Antibody Purification

QUICKProtein A is a new system for antibody purification. The system is comprised of two columns. The first column incorporates monoaldehyde linkage chemistry to couple protein A to 4% cross-linked agarose beads. A nondenaturing elution buffer is used to gently elute the antibody, which then flows onto a second column. The second column performs the buffer exchange into a physiological buffer. The antibody is then ready to use. The entire run takes less than 1 hour. Sterogene. Circle 138.

## In Vitro Protein Production Kits

A new range of transcription-translation kits enables the efficient in vitro production of proteins directly from a variety of DNA templates including plasmids and polymerase chain reaction templates containing the T7/SP6 promoter. The Linked T7 and SP6 systems rely on a simple two-stage process. First is a 15-min transcription using premixed reagents that include salts to avoid any need for optimization, even with suboptimal DNA concentrations. For translation, optimized rabbit reticulocyte lysate and a label are added directly to the transcription reaction. Amersham International. Circle 140.

## Ion Imaging System

QuantiCell 700 is the fastest multiwavelength imaging system available, making real-time imaging at up to 25 frames per second accessible to biomedical research labora-

## The nucleic acid labeling source

Ambion is your source for innovative kits for all your nucleic acid labeling needs

### NEW! Kinase Max™

5' End Labeling Kit produces 1.5-3 times the yield than kits utilizing standard kinase buffers.

### DECAprime™ II

For high specific activity DNA labeling with the random priming method. Fast five minute reaction maximizes probe yield and specific activity.

### NEW! Prime-A-Probe™

For strand specific DNA probe synthesis. The kit utilizes specific primers and your linearized plasmid DNA to produce high specific activity probes for S1, Southern or Northern assays.

*Contact us today for information on our full range of nucleic acid labeling kits for your specific applications.*

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

(800) 888-8804

**Ambion**

Innovative Products for RNA Analysis

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.

Circle No. 60 on Readers' Service Card



tories at affordable prices. Typical applications of QuantiCell include imaging and calibrated measurement of ion-sensitive optical probes such as the family of intracellular calcium probes, pH-sensitive fluorescent probes, and membrane potential probes. It is provided as a fully integrated package with a custom-designed frame-grabber, high-speed filter wheel controller, and intensified charge-coupled device camera to enable acquisition of images much fainter than the human eye can detect. **Applied Imaging. Circle 141.**

### Antibodies

Several highly specialized antibodies for intracellular and extracellular markers include monoclonal antibodies that recognize specific organelle proteins such as mannosidase II and nuclear pore complex proteins, which can be useful in researching the Golgi apparatus and nuclear envelope. A polyclonal antibody specific for involucrin can be used to study terminal differentiation in the upper layers of the epidermis. **Berkeley Antibody Company, BAbCO. Circle 142.**

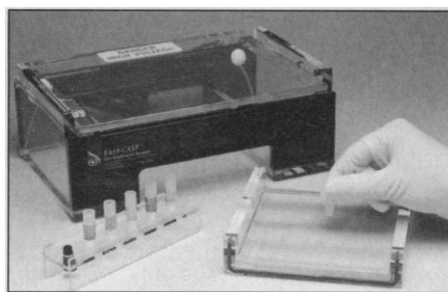
Antibodies are available to calpain and calpastatin for use in immunohistochemistry and protein immunoblotting, with research applications in cell division, intracel-

lular signal transduction, platelet activation, and neurological functions. **Chemicon International. Circle 143.**

Goat polyclonal antibodies to adhesion molecules human ICAM-1, E-selectin, and VCAM-1 are available. The antibodies are suitable for immunocytochemistry on paraffin-embedded tissue sections. **R&D Systems Europe. Circle 144.**

### Electroelution System

The Eluticon is an electroelution system for eluting fragments directly into horizontal gel boxes. It minimizes the steps to elute nucleic acid or protein fragments from agarose or



polyacrylamide gels. An innovative band cutter removes a fragment from the stained gel. Placed in a specially designed rack, a

concentrator holds the gel fragment and catches the sample when released during electroelution. Finally, the unit is spun in a vial to recover the sample from the buffer. Yields are as high as 90%. **Owl Scientific. Circle 145.**

### Literature

*Biomanufacturing Bulletin* is a newsletter directed at those involved in industrial process development and manufacturing. **Life Technologies. Circle 146.**

*Mirager Scientific and Medical Imaging* is an eight-page guide with details on these systems' image processing, analysis, and management capabilities. **Data Cell. Circle 147.**

*The Nest Group Ideabook* is a catalog of electrophoretic and chromatography separation supplies for proteins, peptides, and nucleic acids. **The Nest Group. Circle 148.**

*The Complete Guide to FT-IR: Accessories, Supplies, Microscopes* describes a line of products for Fourier transform infrared spectroscopy. **Spectra-Tech. Circle 149.**

*Metal-Free Products for HPLC* lists products for biocompatible high-performance liquid chromatography. **Phenomenex. Circle 150.**

# NEW! EndNote® Plus For Windows®



More than 85,000 users prefer EndNote, the only Windows bibliographic software that...

- Includes 240 journal styles
- Appends bibliographies automatically to all leading word processors: WordPerfect for Windows, Microsoft Word for Windows, and AmiPro
- Allows users to index all fields for high-speed searching
- Allows Macintosh and Windows users to access the same database over a network

### New in Version 2.0:

- Term lists to keep track of important terms
- Global editing commands
- Enhanced searching options
- EndLink 2 (sold separately) includes 140 filters to import references from online and CD-ROM services
- Customizable EndLink import filters
- Compatible with Windows 3.1, Windows 95, and Windows NT

**1** Import references

**2** Store references in library

**3** Select a journal style

**4** Format a bibliography

**Niles & Associates, Inc.**  
800 Jones Street  
Berkeley, CA 94710  
Voice: 800-554-3049  
E-mail: info@niles.com  
Fax: 510-559-8683  
http://www.niles.com  
Demo available at fip.niles.com

References

1. Argus, M.V. and S.I. Jones. "I. reflection and wing orientation in the butterfly species." *Journal of Entomology* 222:36, 1994.
2. Billoso, T.V. "South and American Butterflies." (Ed.) *Butterflies* (New & Howells, 1993), pp. 97: 124-36, 1993.
3. Whiting, J.R. "Struct of butterfly wings."

Windows and the Windows logo are registered trademarks of Microsoft Corp. All other trademarks are the property of their respective companies.



Still the Longest  
Readlengths Around!



**1260 BASES\***

Congratulations to Daniel Lavelle and Drs. John Gardner and Stephen Scofield of CEPRAP, University of California at Davis for winning Round Two of the **Long ReadIR™ Championship Challenge**. The UC-Davis Lab submitted a double-stranded sample that *autosequenced\** to 1260 bases with 98.8% accuracy. To find out how LI-COR infrared DNA sequencers can increase the productivity of your lab, call for information today!

Phone: 402-467-0700  
FAX: 402-467-0819  
E-mail: [biohelp@bio.lincor.com](mailto:biohelp@bio.lincor.com)

**1-800-645-4267**  
Toll Free U.S. & Canada

LI-COR, Inc.  
4308 Progressive Avenue  
Lincoln, Nebraska 68504  
USA

**LI-COR®**  
BIOTECHNOLOGY DIVISION

\*Readlengths for the contest were determined using LI-COR's Base ImagIR™ software to automatically call bases with no editing or operator involvement. The winning sequence was the Pto gene cloned into a CLONTECH vector pGBT-9.

Circle No. 63 on Readers' Service Card

## ATTENTION CORE LABS NO NEED FOR CAPITAL MONEY

STEP-UP TO THE LATEST IN DNA SYNTHESIS . . .  
Take Advantage of our FAST-PAK Program

### BECKMAN's FAST-PAK PROGRAM

- Oligo Series 1000M 8-column DNA Synthesizer
- Monthly shipment of all contracted consumables including all reagents, column and post-processing chemistry, vials and syringes
- Comprehensive service and maintenance coverage

### FAST-PAK PROGRAM SAMPLE

MONTHLY OLIGONUCLEOTIDES AT PRIMER SCALE 25 BASES AVERAGE LENGTH	TYPICAL COST PER BASE* *ASSUMES LAB PROVIDES ACN
100	84¢
300	67¢

Prices applicable only in the United States.

Call for details  
**1-800-742-2345**

**BECKMAN**

Beckman Instruments, Inc. • 2500 Harbor Boulevard, Box 3100 • Fullerton, California 92634-3100  
Sales: 1-800-742-2345 • Service: 1-800-551-1150 • Internet: <http://WWW.BECKMAN.COM> • Telex: 678413 • Fax: 1-800-643-4366

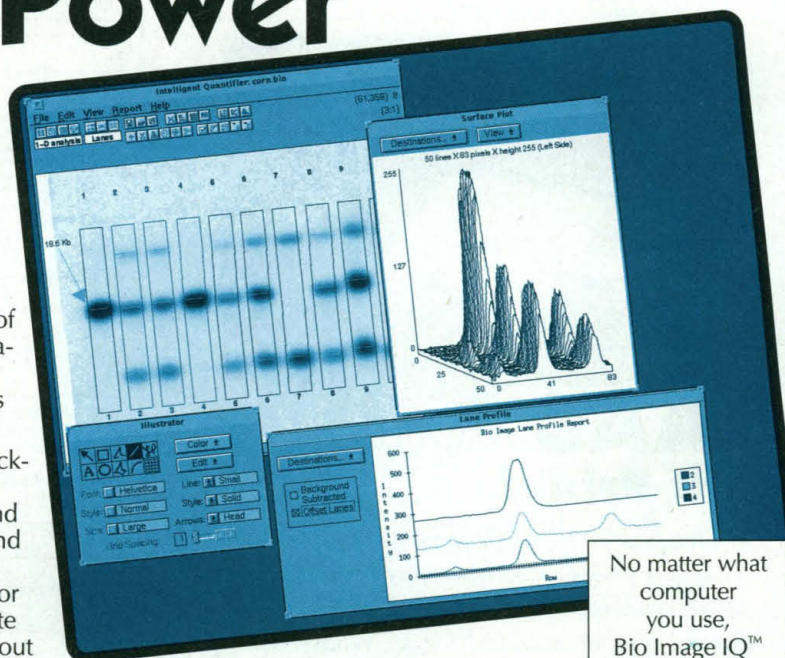
Circle No. 52 on Readers' Service Card

# Porsche Power on a PC, or a Mac, or a Sun Workstation.

If you use electrophoresis in your research, chances are you're not taking full advantage of the technique by using image analysis—probably because the software you tried was either difficult to use or limited in what applications it could support.

Perform a wide variety of analytical tasks quickly and easily with Bio Image IQ™ Software. This menu-driven package is self-installing and self-tutoring. IQ software supports whole band 1-D, 2-D, blot analysis, and colony / plaque counting. Prepare reports, annotate images for publication, and compare data in your favorite spreadsheet and database programs—all without leaving your keyboard.

Take IQ software for a test drive. To receive your demo disk, call us or E mail [sales@bioimage.com](mailto:sales@bioimage.com).



**Bio Image**

No matter what computer you use, Bio Image IQ™ Software lets you take full advantage of electrophoresis by making image analysis powerful yet easy-to-use.

**Bio Image USA**  
TEL: (313) 930-9900  
FAX: (313) 930-0990

**Bio Image France**  
TEL: (1) 48.63.24.25  
FAX: (1) 48.63.72.99

**Bio Image U.K.**  
TEL: (44) 1270-886192  
FAX: (44) 1270-886100

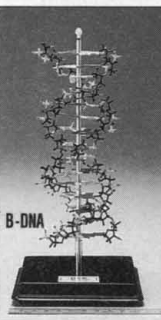
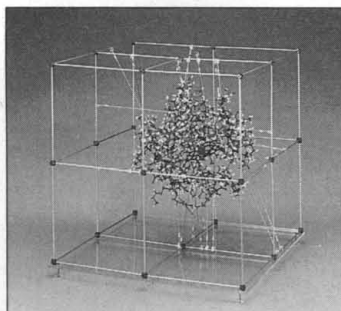
**Nihon Bio Image, Ltd.**  
TEL: (81) 3-3280-0990 / 0932  
FAX: (81) 3-3280-0991

Circle No. 75 on Readers' Service Card



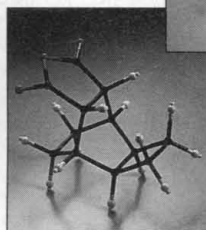
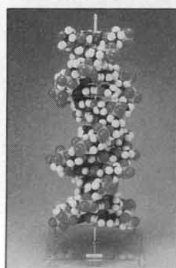
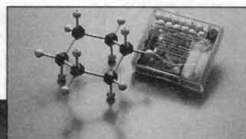
# HGS MOLECULAR STRUCTURE MODEL

Organic, Inorganic, Crystals, Zeolites,  
Biochemistry / Student, Researcher,  
Lecturer.



(New)

Small 23cm, precise,  
convenient for individual  
use.



For general catalog

**MARUZEN CO., LTD.** INTL DIV.  
INTL SALES DEPT  
PO BOX 5050, Tokyo International, 100-31 JAPAN  
Fax: +81-3-3274-2114 Phone: +81-3-3278-9224

Circle No. 86 on Readers' Service Card

# Look in the Stoelting Catalog... For your Physiology instrumentation needs.



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

See pages 24-25.

"Is there a better choice  
in stereotaxic  
instrumentation?"

See pages 2-8.

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

See page 18.



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

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

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

Circle No. 28 on Readers' Service Card



# AAAS with Pride!

In three years AAAS will celebrate its 150th anniversary. Get an early start by ordering your AAAS products now! Each attractive, high-quality item features the new AAAS logo. What's more, a portion of each sale goes to support 150th anniversary activities in 1998.



AMERICAN ASSOCIATION FOR THE  
ADVANCEMENT OF SCIENCE

Qty	Size	Non-Mem.	Member	Discount	Total
	Natural T* (M, L, XL)	\$13.50	\$10.80		
	Navy T* w/color (M, L, XL)	\$17.95	\$14.35		
	Science Cards (12)	\$13.50	\$10.80		
	Blue and White Mug†	\$12.50	\$10.00		
	Navy & Natural Cap	\$13.50	\$10.80		
	Gold-toned Lapel pin	\$4.75	\$3.80		
Subtotal					
Shipping and handling					\$4.00
DC and California add applicable sales tax					
For shipments to Canada, add 7% GST tax					
For foreign air mail, add 25% of subtotal					
(1) Total					

(1) All payments must be in U.S. dollars.

\* all tees are 100% cotton

† Laser-etched porcelain

Name and Address (please print)

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Province, Country, Postal Code \_\_\_\_\_

Payment information ☐ Check/Money Order enclosed ☐ MC/Visa

Credit card number \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

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



# INTRODUCING THE AMES II ASSAY... DEVELOPED\* TO REPLACE THE ORIGINAL.

## NEW AMES II – MORE SENSITIVE, MORE SPECIFIC, MORE QUANTITATIVE THAN THE ORIGINAL AMES ASSAY

Ames II, a new version of the Ames Assay, has been developed to identify base-pair substitution mutations upon detection of mutagens. Ames II comes in a 96 and 384-well microtiter format for easy use.

Six *Salmonella typhimurium* strains have been constructed, each of which carries a different missense mutation in the histidine operon that is designed for reversion via the base substitution unique to each strain. The strains have been combined for use as a single rapid screening mixture.

Ames II identifies missense mutational spectra caused by mutagens without the need to sequence. Low spontaneous reversion frequencies allow detection of mutagens at lower concentrations without loss of sensitivity to a large range of doses.

### STEP 1

- Grow cells overnight @ 37°C, 300 rpm
- The O.D. 600 nm should be > 2.0

### STEP 2

- Transfer 0.1ml of cell suspension for dosing
- Incubate 90 min. @ 37°C @ 300 rpm

### STEP 3

- Aliquot cells & dilute to determine viability

### STEP 4

- Plate remaining cells for revertants
- Incubate @ 37°C/2 days

### STEP 5

- Score reversion & cell viability plates
- Calculate survival and fold inductions

For more information, or to order, contact:

**In United States:** Xenometrix, Inc.  
2860 Wilderness Place • Boulder, CO 80301  
Tel: (303)447-1773 • Fax: (303) 447-1758  
**Toll Free in USA:** 1-800-436-2869

**In Japan:** Funakoshi Co., Ltd  
++81-3-5684-1622

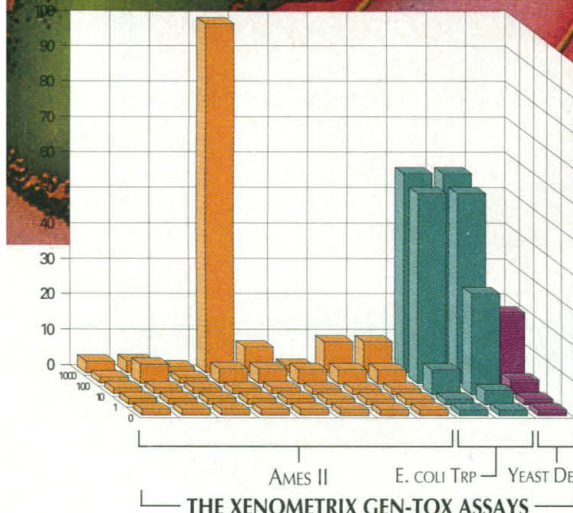
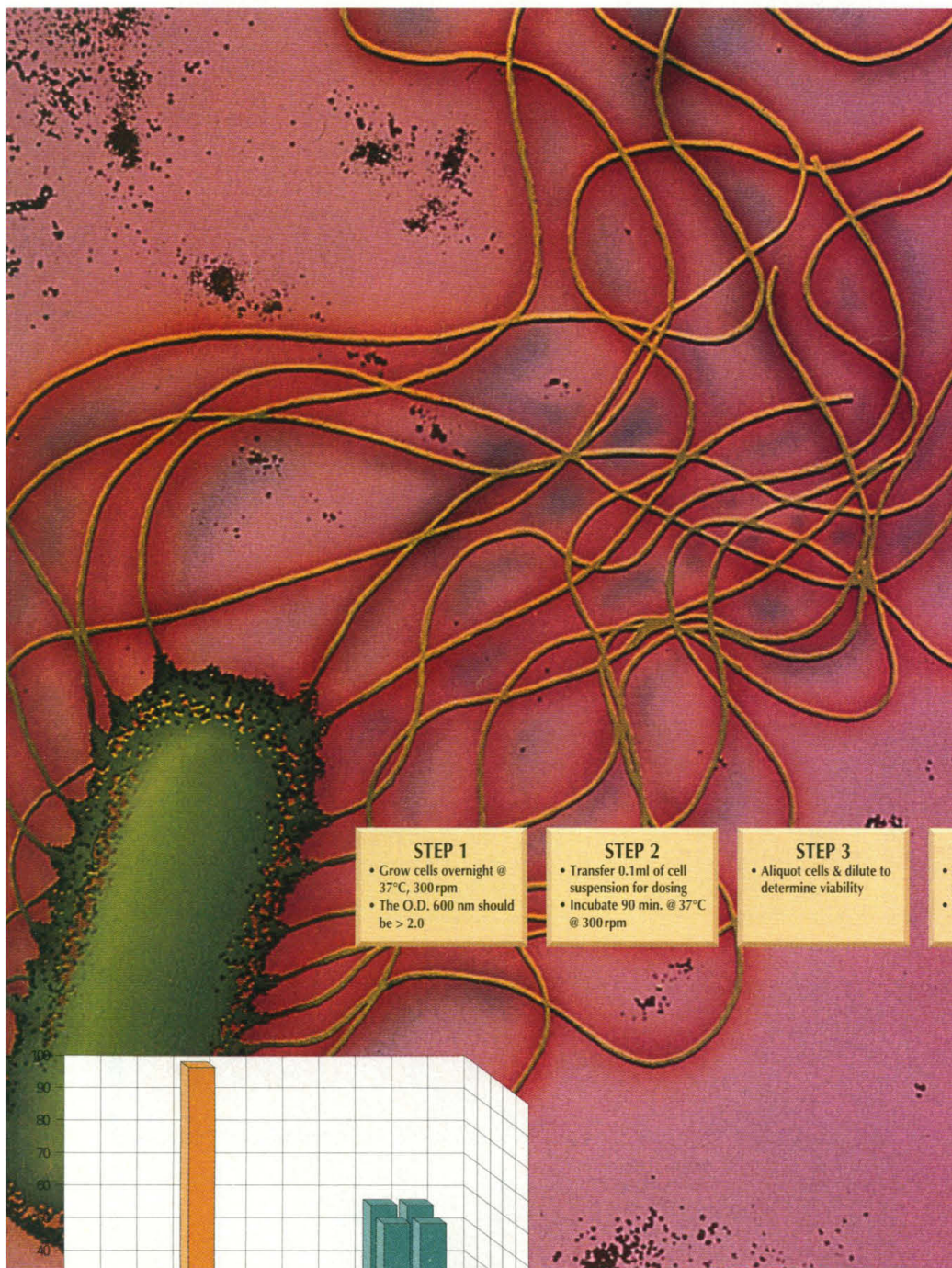
**In UK:** Cambridge Bioscience  
++44-1223-316855

**In Switzerland:** Xenometrix GmbH  
++41-61-482-1434

## The XenoMatrix™

The XenoMatrix™ integrates results from a variety of Xenometrix tests into a single database. It then produces a unique "fingerprint" for individual compounds, which graphically demonstrate different toxicological end points and provide internal confirmation from different tests that a compound is, or is not, problematic for a particular human cell or tissue.

\* Developed by P. Gee, D.M. Maron and B.N. Ames, *Proc Nat Acad Sci*







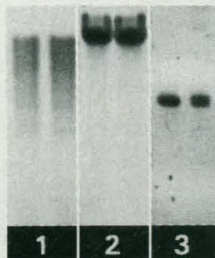
MOLECULAR RESEARCH CENTER, INC. presents

# SMART SOLUTIONS

The most reliable and cost-effective reagents for DNA and RNA isolations. Using separation technology based on the recognition of target molecules by a liquid phase, these innovative reagents outperform traditional DNA and RNA isolation methods. No enzymatic treatments! No columns! No prolonged protocols!

## DNAzol™

a new standard of simplicity and effectiveness in the isolation of high quality genomic DNA, developed by P. Chomczynski.



- Requires only 10 - 30 minutes
- Effective with cells, tissue and liquid samples, including blood.
- No phenol or other toxic agents
- Isolated DNA ② is ready for Southern blotting, restriction analysis ①, PCR ③, molecular cloning and other applications.

## TRI REAGENT®

the most advanced version of the single-step method of RNA isolation.



- Isolates high quality total RNA in less than one hour
- Can be used to simultaneously isolate RNA, DNA and proteins
- Effective with cells, tissue and liquid samples, including blood.
- Isolated RNA ⑤ is ready for Northern blotting ④, RT-PCR ⑥, and other applications

For information or to place an order from USA, Canada and countries not listed below call 1-800 462-9868, 513-841-0900 or Fax 513-841-0080.

# MRC

MOLECULAR RESEARCH CENTER, INC.  
5645 Montgomery Rd. Cincinnati, OH 45212

**AUSTRALIA:** A.G.P. Technologies Pty Ltd 61-7-3419702 Fax 61-7-841-3422; **FRANCE:** Euromedex 33-88-180722 Fax 33-88-180725; **GERMANY:** BioTech Trade & Service GmbH 49-6227-51308 Fax 49-6227-53694; **INDIA:** Lab Care Products 91-11-6425156 Fax 91-11-6425156; **ISRAEL:** Tal Ron 972-8-472563 Fax 972-8-471156; **ITALY:** Bio-Optica Milano SpA 39-2-2640274 Fax 39-2-2153000; **KOREA:** Choong Il Chemical, Inc 822-2946411 Fax 822-2936556; **MALAYSIA:** Technicvest Sdn. Bhd 603-6320998 Fax 603-632-0994; **SWITZERLAND:** Lucerna Chem Ag 41-41-369636 Fax 41-41-369656; **TAIWAN:** Pan Asia Biomedical Technology, Inc. 886-2-7418169 Fax 886-2-7764372; **UNITED KINGDOM:** Molecular Research Centre Oxford 44-1993-706736 Fax 44-1865-351511.

Circle No. 29 on Readers' Service Card

# HEAT SHOCK / STRESS RESPONSE

## THE LARGEST SELECTION OF STRESS RESPONSE BIOCHEMICALS

Antibodies

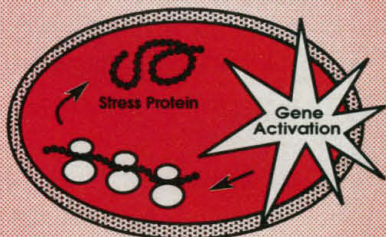
Proteins

Probes

Vectors

*Does your area of study involve stress proteins?*

**Many Do!**



### Disease States

Fever  
Hypertrophy  
Inflammation  
Oxidant Injury  
Ischemia  
Viral Infection  
Malignancy

### Normal Cellular Influences

Cell Cycle  
Development & Differentiation  
Growth Factors  
Molecular Chaperones

### Environmental Stressors

Amino Acid Analogues  
Chemotherapeutic Agents  
Heat Shock  
Inhibition of Energy Metabolism  
Transition Heavy Metals

# StressGen

BIOTECHNOLOGIES CORP.

120-4243 Glanford Avenue, Victoria, B.C., CANADA V8Z 4B9

For a Free Catalog or Information Call

Toll Free (US): (800) 661-4978

Tel: (604) 744-2811 Fax: (604) 744-2877

AMS BIOTECH. LTD., DENMARK, NORWAY, SWEDEN - Tel: 46-8-630-0232, SPAIN - Tel: 34-1-433-6643, SWITZERLAND - Tel: 41-91-50-55-22 • BIOCLONE PTY. LTD., AUSTRALIA, NEW ZEALAND - Tel: 61-2-517-1966 • BIOMOL GmbH, GERMANY - Tel: 49-40-85-32-600 • BIOQUOTE LTD., UNITED KINGDOM - Tel: 44-904-431-402 • CASHMERE SCI. CO., TAIWAN - Tel: 886-2-821-3004 • CAIRO CHEM CO., EGYPT - Tel: 02-3615525 • DIAGNOSTIC BROKERS ASSOC., ITALY - Tel: 39-2-264-145-76 • ENCO SCI. SVC., ISRAEL - Tel: 972-3-934-9922 • ESSENCE INTL. CORP., KOREA - Tel: 82-2-577-5383 • FARMALOX S.A., GREECE - Tel: 30-1-64-45-612 • FENG JIH CO. LTD., TAIWAN - Tel: 886-2-647-8855 • FUNAKOSHI CO. LTD., JAPAN - Tel: 81-3-5684-1622 • KUBERAN ENT., MALAYSIA - Tel: 3-7573785 • KORAM BIOTECH. CORP., KOREA - Tel: 82-2-556-0311 • PROTECH CO. LTD., TAIWAN - Tel: 886-2-3810844 • SANBIO BV., BELGIUM, THE NETHERLANDS, AND LUXEMBOURG - Tel: 31-4132-51115 • SPACE, ITALY - Tel: 39-2-25-75-377 • SZABO, AUSTRIA - Tel: 43-1-409-39-610 • TEBU, FRANCE - Tel: 33-1-34-84-62-52

Circle No. 48 on Readers' Service Card



# Luminescence Products for BioResearch

**Tropix...**

*Sensitive Detection with Luminescence*

## PROTEIN DETECTION

### ELISA-Light™

*Immunoassay*

- Ultrasensitive detection compared to all other methods

Circle No. 110 on Readers' Service Card

### Western-Light™

*Immunoblotting System*

- Sensitive: picogram quantities of protein detected
- Long-lived light signal permits multiple exposures (unlike other luminescent methods)
- Fast: exposures in minutes



Picogram detection with Western-Light™

### Western-Light Plus™

- All the advantages of Western-Light™ with faster exposures
- Concurrent detection of molecular weight markers

Circle No. 111 on Readers' Service Card

**NEW!**

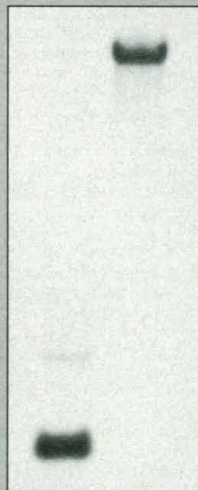
### CDP-Star™

*Alkaline Phosphatase Substrate*

- Greatest signal intensity
- Ideal for blotting and immunoassay applications

Circle No. 112

## NUCLEIC ACID DETECTION



Single copy yeast gene detection with Southern-Light™ using a fluorescein labeled probe

### Southern-Light™

*Southern Blotting*

- Sensitive: detect less than 1 pg of DNA
- Non-radioactive
- Rapid film exposures
- NEW! **FLUORESCENCE** detection kit
- Also available for biotin

Circle No. 113 on Readers' Service Card

### PCR-Light™

*Quantitative PCR*

- Sensitive luminescent method - detects over a wide target concentration
- Accurate quantitation of RNA or virus

Circle No. 114 on Readers' Service Card

**NEW!**

## REPORTER GENE ASSAYS

### Galacto-Light™

*β-Galactosidase Assay*

- Rapid (<25 min), non-isotopic, easy to use
- Up to 1000 times more sensitive than CAT assays
- High sensitivity (2 fg) and wide dynamic range (>10<sup>4</sup>) are ideal for normalizing transfection efficiency in luciferase and other assays.

Circle No. 115 on Readers' Service Card

### Phospha-Light™

*Secreted Placental Alkaline Phosphatase Assay*

- Measures <10 fg of SEAP
- Sample media; cells left intact for further experimentation
- Transfection normalization of other luminescence assays

Circle No. 116

### GUS-Light™

*GUS Gene Assay*

- Rapid: results in less than 1 hour
- Approximately 100 times more sensitive than fluorescent or colorimetric assays.

Circle No. 117

**TROPIX**  
The Leader In Luminescence

47 Wiggins Avenue  
Bedford, Massachusetts 01730

TEL: 617-271-0045 or 800-542-2369 FAX: 617-275-8581 Internet Mail: Tropix@BioTechNet.com

AUSTRIA: Dipl. Ing. F. GATT 0512.58.30.17 • BELGIUM/LUXEMBURG: Westburg BV 0800.1.9815 • CANADA: BIO/CAN Scientific 800.387.8125 • DENMARK: AH Diagnostics 86.101055 • FINLAND, NORWAY, SWEDEN: Boule Diagnostics AB 46.8.608.8650 • FRANCE: OZYME 1.34.60.24.24 • GERMANY, EAST GERMANY: SERVA Feinbiochemica GmbH & Co. KG 06221.502.0 • HONG KONG: Gene Company, Ltd. 2.896.6283 • ISRAEL: Gamidor, Ltd. 3.5351505 • ITALY: Prodotti Gianni S.p.A. 02.5097238 • JAPAN: Boehringer Mannheim K.K. 03.3432.3155 • KOREA: Seolin Scientific Corp. 2.3461.5911 • MALAYSIA: Filharite Co. 603.7351559 • SPAIN: Ingelheim Diagnostica y Tecnologia, S.A. 3.404.52.20 • SWITZERLAND: Catalys AG 01.830.70.37 • TAIWAN: Unimed Healthcare Inc. 02.7202215 • THE NETHERLANDS: Westburg BV 033.4950094 • UK: Cambridge BioScience 0223.316855

For information on all products above, Circle Reader Service No. 118



# Science

## PERSONNEL PLACEMENT

### LINE CLASSIFIED ADVERTISEMENTS

**Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

#### How to Submit a Classified Ad:

Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

#### Mail, FAX or Email materials to:

Science Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
Telephone: 202-326-6555 or 202-326-6534  
FAX: 202-682-0816

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

**Rates:** Ads are \$43 per line; \$430 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. Line advertisements are not commissionable.

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

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

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

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

### DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. for fractional display ads call:

Bethany Ritchey  
Recruitment Display Advertising  
Telephone: 202-326-6541  
FAX: 202-682-0816

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

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

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

WWW: <http://www.aaas.org>  
Gopher: [gopher.aaas.org](mailto:gopher.aaas.org)

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

### POSITIONS OPEN

#### ASSISTANT PROFESSOR HUMAN MICROSCOPIC ANATOMY

Applications are being accepted for a **TENURE-TRACK** faculty position as a Human Microscopic Anatomist in the Department of Anatomy, Northeastern Ohio Universities College of Medicine (NEOUCOM). Proposed starting date for the position is July 1, 1996.

A successful candidate is expected to have a proven record of research and publications with a demonstrated ability or a potential to attract extramural funding. Preference will be given to candidates who use modern cell and molecular biology techniques to address problems in the area of developmental biology. Research interests of current faculty in the Department include nerve-muscle and cell-matrix interactions. Teaching responsibilities involve participation in a team-taught 14-week Microscopic Anatomy course for medical students. Candidates also have the opportunity to develop graduate courses that relate to their specialty. Salary, start-up funds, and facilities for research are competitive.

NEOUCOM, in consortium with Kent State University, The University of Akron, Youngstown State University, and eight teaching hospitals offer a combined B.S./M.D. degree. Basic medical science faculty participate in graduate programs leading to Ph.D.'s in the areas of neuroscience, cellular and molecular biology, physiology, pharmacology, and biological anthropology through the School of Biomedical Sciences at Kent State University. The Department of Anatomy currently has six full-time faculty.

Applicants are requested to forward their curriculum vitae, a statement of research interests, and the names of at least three references by January 1, 1996 to: **Dr. Jon Walro, Ph.D., Chairman, Human Microscopic Anatomy Search Committee, Department of Anatomy, Northeastern Ohio Universities College of Medicine, P. O. Box 95, Rootstown, OH 44272-0095.** NEOUCOM is an Equal Opportunity/Affirmative Action Employer.

#### GENERAL AND MARINE BIOLOGY

The Department of Biology at the University of Central Florida invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level starting August 1996. We seek an individual to teach a large introductory biology course for majors. We are interested in individuals with research specialization in marine biology, especially the physiological or behavioral ecology of marine animals. The successful candidate will be expected to establish an active, externally funded research program and will teach at the undergraduate and graduate levels and direct M.S. graduate students in his or her area of specialization. A Ph.D. and postdoctoral experience or equivalent are required. Candidates should submit a curriculum vitae; names, addresses, and telephone numbers of three professional references; and statements of research and teaching interests to: **Llewellyn M. Ehrhart, Biology Search Committee Chair, Department of Biology, University of Central Florida, Orlando, FL 32816-2368.** Submissions must be postmarked by January 2, 1996. Florida law dictates that all application materials and selection procedures are available for public review. The University of Central Florida is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR DEPARTMENT OF NEUROSURGERY

**TENURE-TRACK** position available for a Ph.D. or M.D./Ph.D. with experience and expertise in conducting laboratory research in molecular and cellular biology with specific emphasis in one or more of the following areas: signal transduction, tumor suppressor genes, tumor invasiveness, or molecular strategies for solid tumor therapy. Experience with brain tumors is encouraged but not required. Salary and benefits are highly competitive. Send curriculum vitae, summary of research interests, and references to: **Raymond Sawaya, M.D., Professor and Chairman, Department of Neurosurgery, Box 64, University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**

Equal Opportunity/Affirmative Action Employer.  
Smoke-free environment.

### POSITIONS OPEN

#### ASSISTANT PROFESSOR NEUROSCIENCE Brown University

The Department of Neuroscience is seeking applicants to fill two **TENURE-TRACK** faculty positions to expand our Departmental interest in neural plasticity. Areas of specific interest include: the study of learning and memory, using either molecular approaches or neurophysiological recordings in behaving animals (including primates), and genetic or molecular aspects of CNS development.

A search to fill two additional positions in these areas will commence upon completion of the current search. A newly renovated building dedicated to neuroscience research, including new cell culture, histology, microscopy and animal care/surgical facilities, and generous research space, will be available for these positions.

Candidates must have a Ph.D. or M.D. and postdoctoral experience, show evidence of ability to establish an independent, externally funded research program, and demonstrate the potential for excellence in teaching. Brown has active graduate programs in neuroscience and molecular and cell biology.

Applications received by December 31, 1995 will receive full consideration. Submit a curriculum vitae, a set of representative reprints, a concise description of research interests and goals, and arrange for three letters of reference to be sent to: **Dr. Mark Bear, Search Committee, Department of Neuroscience, Box 1953, Brown University, Providence, RI 02912.** We encourage women and minority candidates. Brown University is an Equal Opportunity/Affirmative Action Employer.

#### STROKE NEUROSCIENTIST DEPARTMENTS OF CELLULAR BIOLOGY, NEUROLOGY AND NEUROSURGERY Schumpert Chair in Neurobiology

Full-time tenure-track, joint faculty position available January 1, 1996. Applicants should have a Ph.D. or M.D., postdoctoral experience, and a record of excellent research accomplishments in cell/molecular biology of stroke or related diseases. Candidates should have an established record of extramurally funded research support and be willing to participate in the Neuroscience graduate program. Faculty rank will be commensurate with level of experience. A very attractive package including Schumpert Chair, research facilities and start-up funds is available. Send curriculum vitae and description of current and future research plans to:

**Leonard L. Seelig, Ph.D.**  
Department of Cellular Biology and Anatomy  
P.O. Box 33932  
Shreveport, LA 71130

Louisiana State University Medical College is an Affirmative Action Employer.

#### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Animal Science, College of Veterinary Medicine, The University of Tennessee, announces an opening for a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** whose interests and training complement ongoing research. The College has a nucleus of successful and interactive researchers in the areas of host defense, molecular genetics and carcinogenesis, growth factors, and experimental hematology. The successful candidate must have both D.V.M. and Ph.D. degrees; postdoctoral experience preferred. The successful candidate will be expected to establish a productive, funded research program (70 to 80 percent) and teach in the professional D.V.M. and graduate program (20 to 30 percent). Salary is commensurate with experience and qualifications. Applicants should submit a letter, a curriculum vitae, a statement of career goals, transcripts, and the names and addresses of four individuals who can be contacted to provide references to: **Dr. Michael H. Sims, Department of Animal Science, College of Veterinary Medicine, The University of Tennessee, Knoxville, TN 37901-1071.** Applications will be reviewed December 1, 1995, and thereafter until the position is filled.

The University of Tennessee is an Equal Employment Opportunity/Affirmative Action/Title VI/Title IX/Section 504/ADA Employer.



# Postdoctoral Opportunities In The Biomedical Sciences.

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

## **Cell Cycle Regulation** **Barbara Thomas, PhD**

Mechanisms for regulating cell cycle progression during development are being examined in the *Drosophila* compound eye. Current efforts are directed towards the phenotypic analysis and molecular cloning of novel loci that interact genetically with *roughex*, a gene required for G1 arrest. These studies will begin to define genetic pathways for cell cycle regulation in higher eukaryotes. Applicants must have less than five years of postdoctoral experience. Laboratory of Biochemistry (OE-104), NCI, Building 37, Room 4C19, 37 CONVENT DR MSC 4255, BETHESDA MD 20892-4255.

## **Clinical Neurocardiology** **David S. Goldstein, MD, PhD**

Current project topics include PET scanning of sympathetic innervation and function in patients with neurocardiologic disorders; sympathetic nerve recording and microdialysis; catecholamine pharmacology, metabolism, and kinetics; and homeostatic regulation of stress effector systems. Candidates must have an MD or MD/PhD and be interested in neurocardiology as a new discipline in clinical medicine. Clinical Neuroscience Branch (OE-104), NINDS, Building 10, Room 5N214, 10 CENTER DR MSC 1424, BETHESDA MD 20892-1424.

## **Immunopathology and Molecular Pathology** **Chi-Chao Chan, MD**

Histopathology of human and experimental immune-mediated ocular diseases is studied using molecular and immunochemical techniques. A strong background in molecular pathology and/or immunology is required. Applicants must have a completed MD and/or PhD degree, be US citizens or permanent residents, and have less than five years of postdoctoral experience. Laboratory of Immunology (OE-104), NEI, Building 10, Room 10N103, 10 CENTER DR MSC 1858, BETHESDA MD 20892-1858.

## **Mechanisms of Activated Transcription** **David J. Clark, PhD**

A position is available to study the mechanisms of activated transcription using yeast minichromosomes as a model system: a physiologically active gene can be isolated with its transcriptional apparatus intact and in its natural context of chromatin. Experience in protein purification or nucleic acid-protein interactions would be an advantage. Applicants must have less than five years of postdoctoral experience. Laboratory of Cellular and Developmental Biology (OE-104), NIDDK, Building 6, Room B1-12, 6 CENTER DR MSC 2715, BETHESDA MD 20892-2715.

## **Molecular Genetics** **Ashok B. Kulkarni, PhD**

Genes involved in immune dysregulation, inflammation and phosphorylation processes are being studied. Projects include analysis of mouse mutants generated using gene targeting, generation of animal models for human genetic disorders and development of conditional knockout models. \* Applicants should have a strong background in

molecular biology, embryology or immunology and must have less than five years of postdoctoral experience. Gene Targeting Research and Core Facility (OE-104), NIDR, Building 30, Room 529, 9000 Rockville Pike, BETHESDA MD 20892. \* (PNAS, 90:770 and *Genomics*, 28:585).

## **Neuroanatomy/Neurophysiology** **Mortimer Mishkin, PhD**

A position is available for a neuroscientist trained in anatomy and/or electrophysiology to assist in implementing studies on the structure and function of the macaque's central auditory system. Applicants must have less than five years of postdoctoral experience. Laboratory of Neuropsychology (OE-104), NIMH, Building 49, Room 1B80, 49 CONVENT DR MSC 4415, BETHESDA MD 20892-4415.

## **Neuron-glial Cell Interactions** **James T. Russell, PhD**

A position is available to study glial neuronal interactions. Problems under investigation include glial cell signals during neuronal activity and cellular communication in glial networks using optical and electrical measurement techniques. Candidates should have extensive experience in electrophysiological techniques using brain slice preparations. Experience in confocal microscopy desired. Section on Neuronal Secretory Systems (OE-104), NICHD, Building 49, Room 5A32, 49 CONVENT DR MSC 4495, BETHESDA MD 20892-4495.

## **Additional Opportunities**

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

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

## **To Apply**

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



# National Institutes Of Health

## Office Of Education

The NIH is an Equal Opportunity Employer



## POSITIONS OPEN

### NEUROBIOLOGIST BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST UNIVERSITY

The Department of Neurobiology and Anatomy invites applications for two tenure-track positions. Successful candidates will have postdoctoral experience, an excellent record of scholarship, and the potential to develop and maintain an active research program. The department is seeking an Integrative Neurobiologist (**ASSISTANT/ASSOCIATE PROFESSOR**) who uses modern systems, cellular, and/or molecular approaches in areas that complement current faculty research. Preference will be given to those individuals interested in mechanisms by which the nervous system integrates information from different sensory modalities. The department is also seeking a Sensory Neurobiologist (**RANK OPEN**) working in a CNS system with an emphasis on sensory processing, development, and/or plasticity. Departmental interests include sensory organization, development, and plasticity; retinal cell biology; neuron-glial interactions; programmed cell death; and trophic factors. Bowman Gray offers a unique opportunity to interact with a broad range of neurobiologists that comprise a strong, multidisciplinary neuroscience community. For additional information about the department, see <http://isnet.is.wfu.edu/bgsm/nba/nba.html>. Send curriculum vitae, research description, and three letters of recommendation to either: Integrative Neurobiologist or Sensory Neurobiologist Search Committee, Department of Neurobiology and Anatomy, Bowman Gray School of Medicine, Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157-1010. *Affirmative Action/Equal Opportunity Employer.*

### NEUROBIOLOGIST

Harvey Mudd College (HMC) announces a tenure-track position (**RANK OPEN**) to begin August 1996. Ph.D. and postdoctoral experience required. We seek a broadly trained neurobiologist with experience in electrophysiology and expertise in another area of modern neurobiology (e.g., neuronal development, molecular biology, cellular neurophysiology, or computational neurobiology). Breadth of knowledge for excellent undergraduate teaching is required, as is a commitment to an active research program that involves undergraduates. Teaching responsibilities may include the animal physiology portions of introductory biology, general physiology for majors, and advanced specialty courses. Harvey Mudd College, a member of the Claremont Colleges, is a highly selective private college of science and engineering with an outstanding record of preparing students for careers in those fields (<http://www.hmc.edu/>). Send letter including description of research and teaching interests and curriculum vitae, and have three letters of reference sent to: Dr. Stephen C. Adolph, Department of Biology, Harvey Mudd College, 301 East 12th Street, Claremont, CA 91711. Review of applications will begin on December 15, 1995, and continue until the position is filled. Email inquiries to [Stephen.Adolph@hmc.edu](mailto:Stephen.Adolph@hmc.edu). HMC is an Equal Opportunity Employer, and is committed to recruiting candidates from groups traditionally underrepresented on college faculties.

Microbiology and Molecular Biology, Middlebury College, Middlebury, Vermont 05753. The Department of Biology invites applications for an anticipated one-year term position, beginning fall 1996, in the area of microbiology and molecular biology. Appointment for this position will be made at the rank of beginning **VISITING ASSISTANT PROFESSOR**. Applicants should have a Ph.D. in the subject area, a broad background in biology, and a commitment to excellence in both teaching and scholarship. The successful applicant will offer a one-term laboratory course in general microbiology, an advanced one-term laboratory course in molecular genetics, a one-term general education course that will serve the broader college community, and a winter term course. Supervision of undergraduate student research in microbiology and molecular biology is expected. Completed application including curriculum vitae, statements of teaching and research interests, undergraduate and graduate transcripts, a sample of scholarly work, and at least three current letters of recommendation sent directly by their authors must be received by 4 December 1995. All materials should be sent to: Dr. Grace Spatafora, M/MB Search Committee, Department of Biology. Telephone: 802-388-3711, x5431; FAX: 802-388-0739. Middlebury College is an Equal Opportunity Employer, and it encourages applications from women and members of minority groups.

## POSITIONS OPEN

### MOLECULAR DEVELOPMENTAL NEUROBIOLOGIST

The Department of Anatomical Sciences and Neurobiology is seeking to fill a position at the level of **ASSISTANT PROFESSOR**. The preferred candidate will have an independent research program in developmental neurobiology with a molecular approach, a track record of funding, research that complements existing interests, and will assist in the development of molecular expertise for our NSF-sponsored Program in Developmental and Molecular Neurobiology. A generous start-up package is available. Candidate will be expected to teach a graduate course in Molecular Neurobiology and team teach a course in the Anatomical Sciences; preference will be given to Microanatomy. The Department has 25 faculty, the majority of whom have a research interest in the neurosciences. Deadline: December 31, 1995. Send curriculum vitae, statement of research and career goals, list of current funding, and at least four letters of reference to:

Dr. Laura Schweitzer  
Department of Anatomical Sciences  
and Neurobiology  
University of Louisville School of Medicine  
Louisville, KY 40292

*The University of Louisville is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### HAVERFORD COLLEGE

The Molecular, Cellular and Developmental Biology Department has broadened its search for a tenure-track **ASSISTANT PROFESSOR** for the fall of 1996. The successful applicant will teach introductory and advanced courses in the Biology Department on the molecular biology of proteins and nucleic acids. She or he will receive teaching credit for maintaining an active research program with extensive undergraduate engagement involving the study of an important cell biological problem at the molecular level. Possible areas of interest could include, but are not restricted to, glycoproteins and cell adhesion, metabolism, and RNA processing. She or he will also be expected to participate actively in the teaching of non-science-majors as well as students enrolled in the interdisciplinary Area of Concentration in Biochemistry and Biophysics. Postdoctoral research experience is required. Please send curriculum vitae, statements of research plans (one to three pages) and of teaching interests, and three letters of recommendation by November 15, 1995 to: Dr. Judy Owen, Biology Search, Haverford College, Haverford, PA 19041-1392. Haverford College, located 10 miles west of Philadelphia, is an Equal Opportunity, Affirmative Action Employer; women and minority candidates are especially encouraged to apply. Home page: <http://www/haverford.edu/biology/biology.home>.

### ECOLOGY/EVOLUTION FACULTY POSITION INVERTEBRATE BIOLOGY/ENTOMOLOGY

The University of Montana seeks applicants for a **TENURE-TRACK POSITION** in freshwater or terrestrial invertebrate biology. Research must have a significant field component and complement existing strengths in ecological, evolutionary, and organismal biology in the Division. Productive research, aggressive pursuit of extramural support, and supervision of graduate students is expected. Teaching will include lower-division general biology, an upper-division course in invertebrate biology, perhaps alternating with entomology, and a graduate course in speciality. Ph.D. required, postdoctoral experience preferred, teaching experience desirable. Send letter of application, curriculum vitae, statement of research goals, and three letters of reference to: Invertebrate Biology Search Committee, Division of Biological Sciences, University of Montana, Missoula, MT 59812. Review begins January 8, 1996 and will continue until position is filled. Women and minorities are strongly encouraged to apply. Equal Employment Opportunity/Affirmative Action.

Boston University seeks an **ASSOCIATE** or **FULL PROFESSOR** for its graduate Department of Cognitive and Neural Systems. Exceptionally qualified assistant professors will also be considered. Candidates should have an international research reputation in modeling nonlinear neural networks in vision, pattern recognition, cognitive information processing, speech, language, or technology. Send curriculum vitae and three recommendation letters to: Search Committee, Cognitive and Neural Systems Department, 677 Beacon Street, Boston University, Boston, MA 02215. Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR IMMUNOLOGY Morehouse School of Medicine

Scientists with research expertise in areas of contemporary molecular or cellular immunology are invited to apply for two regular faculty positions in the Department of Microbiology and Immunology. Candidates for **ASSISTANT PROFESSOR** must have current postdoctoral experience and demonstrated ability to direct an independent research program and obtain extramural research funding. Candidates for **ASSOCIATE PROFESSOR** must have a record of current research productivity and funding. Morehouse School of Medicine is a young institution dedicated to the training of underrepresented minorities in medicine and graduate biomedical sciences, and to excellence in research. State-of-the-art research facilities plus individual start-up support will be available to the appointees. These positions offer the opportunity for full and rewarding scholarly growth. *Underrepresented minorities and women are particularly encouraged to apply.* Applicants should submit a curriculum vitae, statement of research background and plans, and names of three references to: Gordon B. Bailey, Ph.D., Chair, Department of Microbiology and Immunology, Morehouse School of Medicine, 720 Westview Drive, Atlanta, GA 30310. FAX: 404-752-1179.

### ASSISTANT PROFESSOR Department of Pharmacology and Therapeutics

Applications are being accepted for a **TENURE-TRACK FACULTY** position at the rank of Assistant Professor. Minimum qualifications include a Ph.D. or M.D. degree in pharmacology or a related discipline and evidence of highly productive postdoctoral research in molecular pharmacology. The successful candidate will be expected to establish a vigorous research program where salaries and operating funds are received from external agencies as well as engage in undergraduate and graduate teaching. The salary range for this position is \$40,000 to \$50,000. Please send letter of application, curriculum vitae, and three letters of reference to: Dr. Gary B. Glavin, Acting Head, Department of Pharmacology and Therapeutics, Faculty of Medicine, University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Manitoba R3E 0W3 Canada. Telephone: 204-789-3355; FAX: 204-783-6915; Email: [glavin@cc.umanitoba.ca](mailto:glavin@cc.umanitoba.ca). Closing date: December 31, 1995. *The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal people and persons with disabilities. The University offers a smoke-free work environment, save for specially designated areas. This advertisement is directed to Canadian citizens and permanent residents of Canada.*

### CHAIR Department of Anatomy

Applications are invited from senior faculty to assume the position of **CHAIR** of the Department of Anatomy. Midwestern University is comprised of the Chicago College of Osteopathic Medicine, the Chicago College of Pharmacy, and the College of Allied Health Professions. The successful candidate is expected to have an established reputation as a teacher, researcher, and a leader in education.

Applicants are asked to send a résumé and statement of teaching and research interests to: Mark Cummings, Ph.D., Associate Dean for Academic Affairs.

Midwestern University  
555 31st Street  
Downers Grove, IL 60515

*An Affirmative Action/Equal Opportunity Employer.*

### FACULTY POSITION IN NEUROSCIENCE Children's Hospital and Harvard Medical School

The Division of Neuroscience at Children's Hospital is inviting applications from M.D. or Ph.D. scientists for the position of **ASSISTANT PROFESSOR**. The possibility exists for a joint appointment in the Department of Neurobiology at Harvard Medical School. Applicants should have an outstanding research background in any area of developmental, cellular or molecular neurobiology. Send a curriculum vitae, current and future research plans, relevant reprints, and three letters of reference to: Michael E. Greenberg, Ph.D., Director—Division of Neuroscience, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Harvard Medical School is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.



## COGNITIVE NEUROSCIENCE

### McDonnell-Pew Investigator-Initiated Grants

The McDonnell-Pew Program in Cognitive Neuroscience is accepting proposals from individuals pursuing innovative, multi-disciplinary research investigating the relationship between human cognitive function and the underlying brain mechanisms.

Individuals currently receiving support from McDonnell-Pew Centers are not eligible to apply for Investigator-Initiated Grants. Individuals at institutions with McDonnell-Pew Centers but who do not receive any support from the Center are eligible to submit proposals.

Preference will be given to projects that include input from two or more of the disciplines contributing to cognitive neuroscience: clinical and basic neuroscience, psychology, computer science, linguistics and philosophy. An emphasis on higher cognitive functions is encouraged.

The grants provide a maximum of \$35,000/year for up to 3 years. An institutional overhead of 10% total salary and fringe benefits may be requested but **must** be included in the \$35,000/year maximum. The funds may be used to support research, postdoctoral training or to provide seed money for investigators exploring new research directions. Proposals establishing interdisciplinary and/or inter-institutional collaborations are encouraged. Requests for funds to support graduate student thesis research will not be accepted.

**Deadline for receipt of proposals: February 26, 1996.** The awards will be announced in June, 1996.

To request further information and application guidelines contact: Susan M. Fitzpatrick, Ph.D., Program Officer, McDonnell-Pew Program in Cognitive Neuroscience, James S. McDonnell Foundation, 1034 South Brentwood Boulevard, Suite 1610, St. Louis, Missouri 63117, Phone: 314-721-1532, Fax: 314-721-7421, e-mail: C06819CN@WUVM.D.WUSTL.EDU, on-line: [HTTP://www.artsci.wustl.edu/~bruer/jsm\\_foundation.html](http://www.artsci.wustl.edu/~bruer/jsm_foundation.html)

### NINTH ANNUAL

### COMPLEX SYSTEMS SUMMER SCHOOL

JUNE 2-28, 1996 IN SANTA FE, NEW MEXICO

For graduate students and postdoctoral fellows, an intensive introduction to "complex" behavior in mathematical, physical, and living systems. Topics include adaptive computation, evolution of the immune response, neural networks, stochastic processes in complex systems, fluid dynamics, and plant ecosystems. Interactive format encourages group and individual research projects. Computer laboratory. Tuition support. Women and minorities are encouraged to apply.

#### Co-Directors:

Lynn Nadel, Psychology, University of Arizona  
Daniel Stein, Physics, University of Arizona

#### Further information from:

Summer School, Santa Fe Institute  
1399 Hyde Park Road, Santa Fe, NM 87501 USA  
505-984-8800; fax 505-982-0565  
e-mail: [summerschool@santafe.edu](mailto:summerschool@santafe.edu)  
<http://www.santafe.edu>

**Application procedure:** Provide a current resumé (including publications); a statement of your current research interests; comments about why you want to attend the School; and two letters of recommendation from scientists who know your work. **Send complete application packages only**, preferably hard copy, to the above address. Include your e-mail address and/or fax number. No funds available for travel.

**Application Deadline:** FEBRUARY 2, 1996.  
We will not consider late/incomplete applications.

## IPNS STAFF POSITIONS

Argonne National Laboratory, one of the nation's premier scientific research and development organizations, located 20 miles southwest of Chicago, has openings for various positions, as listed, in its Intense Pulsed Neutron Source (IPNS) Division. IPNS is the world's first major pulsed spallation neutron facility dedicated to materials research.

- Staff positions for the Linac and RF systems in the Accelerator Group
- Scientific Assistants for neutron scattering instruments, moderators, ancillary equipment and computers/detectors in the Neutron Operations Group
- Design Engineers in the Accelerator and Neutron Operations Groups
- Technicians in the Accelerator and Neutron Operations Groups

To learn more about these positions, send your resume to Walter D. McFall at the address below.

- Post doc positions for candidates with a PhD awarded within the last 3 years in a discipline such as physics, chemistry, or materials science. Areas of experience are desirable in:

- ✓ microstructure and atomic dynamics of inorganic solids, preferably using neutron powder diffraction and inelastic scattering with a possible background in calculation of molecular and

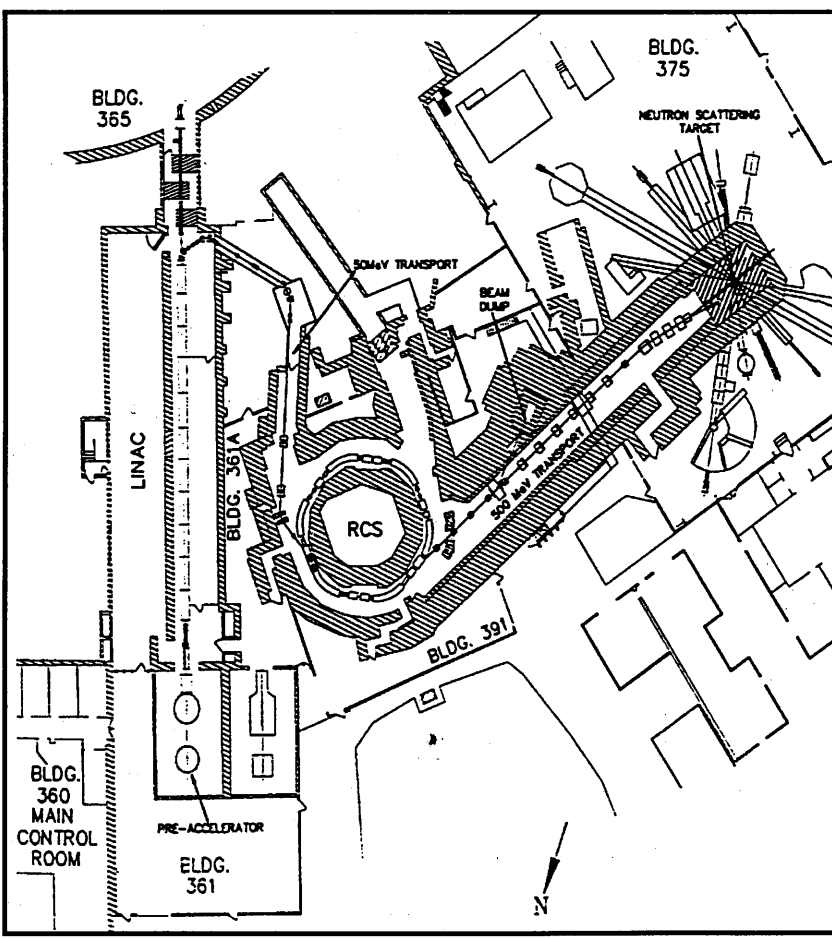
lattice vibrations with computer simulations and phonon models.

- ✓ neutron or x-ray diffraction and structure refinement by the Rietveld method.
- ✓ small angle neutron scattering techniques and expertise in computer software and instrumentation development.
- ✓ x-ray or neutron crystallography, either single-crystal or powder, along with small angle and quasielastic neutron scattering.
- ✓ nuclear physics or nuclear engineering for Monte Carlo/analytical calculations for the performance of the target/moderator/reflector system.
- ✓ inelastic neutron scattering applied to problems in condensed matter physics with a preferred background in either magnetism or ferroelectricity

For the Post doc positions, resumes, three letters of recommendation and possible statement of research interests and copies of selected publications should be forwarded to: Walter D. McFall, Box IPNS-55, Employment and Placement, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439. Telecommunications Device for the Deaf (708)252-7722.

Applications from candidates who can contribute to our EEO/Affirmative Action goals are welcome. Argonne is an equal opportunity/affirmative action employer.

For additional information please refer to Argonne's Home Page on the Internet — <http://www.anl.gov/welcome.html> or IPNS at <http://www.pns.anl.gov/>.





## POSITIONS OPEN

### ASSISTANT PROFESSOR ENVIRONMENTAL SCIENTIST

Illinois Benedictine College is seeking a tenure-track environmental scientist at the **ASSISTANT PROFESSOR** level, to begin August 1996. Ph.D. required. Successful candidate will have terrestrial ecology background and experience. Responsibilities are to teach introductory biology courses and upper-level courses in speciality and to develop a research program involving undergraduates. Cover letter should address applicant's interest in undergraduate teaching in a liberal arts environment. Send curriculum vitae, statement of teaching philosophy and research experience, three letters of recommendation, and all transcripts to: **Dr. Alfred R. Martin, Search Committee, Department of Biology, Illinois Benedictine College, 5700 College Road, Lisle, IL 60532.** Deadline for completed application is December 15, 1995. *Illinois Benedictine College is an Equal Opportunity Employer. Women and minority candidates are especially urged to apply.*

### BEHAVIORAL NEUROSCIENCE

**ASSISTANT PROFESSOR.** The Department of Psychology at Yale University expects to make an appointment at the rank of Assistant Professor in behavioral neuroscience effective July 1, 1996. The Department emphasizes research interests in the analysis of learning and memory; however, outstanding candidates in all sub-specialties including cognitive neuroscience are encouraged to apply. Applicants are expected to provide high-quality teaching at the undergraduate level and in a graduate Behavioral Neuroscience program, and to have exhibited (or shown very clear promise of) excellence in research. Applicants should send a letter of application, a curriculum vitae, papers or reprints, and should arrange for three letters of recommendation to be sent to: **Chair, Behavioral Neuroscience Search Committee, Department of Psychology, Yale University, P. O. Box 208205, New Haven, CT 06520-8205.** Deadline for completed applications: February 15, 1996. *Yale is an Equal Opportunity/Affirmative Action Employer, and applications from women and minority group members are especially encouraged.*

**HEAD,** Department of Forestry and Wildlife Management, University of Massachusetts at Amherst. Includes the administration of teaching, research, and public outreach activities for a productive multidisciplinary program in natural resources. Candidates must have a demonstrated record of accomplishment in scholarly work, a talent for organization, and an ability to work with faculty representing a wide variety of natural resource and life science disciplines. A doctorate with at least one advanced degree in natural resources, and administrative experience, are required. The position is available July 1, 1996, subject to funding. Applications should be received by January 19, 1996 to receive priority consideration. Send nominations or applications (résumé, letter of intent, and names of three references) to: **David B. Kittredge, Chair, Search Committee for the Head, Department of Forestry and Wildlife Management, Holdsworth Natural Resources Center, University of Massachusetts, Amherst, MA 01003.** Telephone: 413-545-2943; FAX: 413-545-4358; Email: [dbk@forwild.umass.edu](mailto:dbk@forwild.umass.edu). *The University of Massachusetts is an Affirmative Action/Equal Opportunity/Americans with Disabilities Act Employer.*

### VASCULAR PLANT SYSTEMATIST

The Department of Botany at Duke University invites applications for a vascular plant systematist as a tenure-track **ASSISTANT PROFESSOR** or tenured **ASSOCIATE PROFESSOR** of Botany to begin September 1996. Expansion of the Duke University Herbarium (algae, fungi, bryophytes, and vascular plants totaling over 700,000 specimens) into a new building is planned and applicants for the position should be prepared to assume a leading role with respect to the collections. Applicants must have an active research program and the ability to teach and direct research at the undergraduate and graduate level. Individuals with research interests that take advantage of the strengths of the collections (eastern North America and Neotropics) are encouraged to apply. A complete application includes a curriculum vitae, description of research goals and teaching interests, and three letters of reference, to be sent to: **Professor Donald E. Stone, Department of Botany, Science Drive, Duke University, Durham, NC 27708-0338.** Email: [dstone@acpub.duke.edu](mailto:dstone@acpub.duke.edu). Applications received by December 21, 1995 are guaranteed consideration. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR PROFESSOR OF ANATOMY

The Department of Orthopaedic Surgery and Anatomy at the University of California at Los Angeles and affiliates has a position available at the **ASSISTANT PROFESSOR** level or higher for the Division of Anatomy in Orthopaedic Surgery, available January 1, 1996. Applicants must be qualified to teach gross anatomy to medical or dental students and preference will be given to applicants with prior teaching experience. Applicant's research should focus on cell differentiation with an emphasis on regulation of that process by bone marrow cells. Interested candidates may write and enclose curriculum vitae by December 1, 1995 to:

**Joseph M. Lane, M.D.  
Professor and Chairman  
Department of Orthopaedic Surgery  
UCLA School of Medicine  
Los Angeles, CA 90095-6902**

*UCLA is an Equal Opportunity/Affirmative Action Employer.*

### INTEGRATIVE BIOLOGIST

Tenure-track, **ASSISTANT PROFESSOR**, beginning fall 1996. Preference will be given to broadly trained applicants who use modern approaches to study integrative processes at the organismal or population level. Areas of particular interest are evolution, environmental physiology, or behavior. The successful candidate will be expected to establish a vigorous, extramurally funded research program and participate in teaching at the undergraduate and graduate level. Generous set-up funds are available. Applicants should send a statement of research and teaching experience and interests, curriculum vitae, and three letters of recommendation by 15 January 1996, to: **Chair, Integrative Biology Search Committee, Department of Zoology and Genetics, Iowa State University, Ames, IA 50011-3223.** *Iowa State University is an Affirmative Action/Equal Opportunity Employer.*

### PLANT MOLECULAR GENETICIST

The Department of Molecular Genetics and Cell Biology at the University of Chicago is seeking applications for a faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level in the general field of plant genetics, development, and cell biology. The Department seeks an individual who will establish an active research program and participate in both undergraduate and graduate teaching. Particular consideration will be given to highly interactive candidates whose interests complement existing research efforts in pollen-pistil interactions, biochemical genetics, lipid biosynthesis, chloroplast biogenesis, and vascular tissue development. Applicants should submit a curriculum vitae, reprints, a summary of current and proposed research work, and should arrange to have three letters of recommendation sent by December 15, 1995 to: **Dr. Anthony P. Mahowald, Department of Molecular Genetics and Cell Biology, The University of Chicago, 920 East 58th Street, Chicago, IL 60637.** *Affirmative Action/Equal Opportunity Employer.*

The University of Illinois at Chicago, Department of Psychology, invites applications for a tenure-track **ASSISTANT PROFESSOR** or a tenured associate professor in Biopsychology beginning in fall 1996. Applicants must have a Ph.D. and an active research program in behavioral or integrative neuroscience employing animal models, with an emphasis on central mechanisms. This ad represents a reopening of a previous search (fall 1995). Submit letter of application, curriculum vitae, and three letters of reference to: **Dr. Michael W. Levine, Chair, Biopsychology Search Committee, c/o Cheryl McMillan, Department of Psychology (M/C 285), The University of Illinois at Chicago, 1007 West Harrison Street, Chicago, IL 60607-7137.** Applicants should provide evidence of their potential to teach effectively and direct a productive research program. To ensure full consideration, applications should be received by February 15, 1996. *Equal Employment Opportunity/Affirmative Action.*

### ROSS UNIVERSITY SCHOOL OF MEDICINE

Invites nominations to the following departments for its beautiful tropical location in the Caribbean: Gross Anatomy, Histology, Embryology, Microbiology. Excellent tax benefits. Send curriculum vitae to:

**Dr. Robert Ross, Search Committee  
Ross University  
460 West 34th Street  
New York, NY 10001**

## POSITIONS OPEN

### CHEMICAL SENSES University of Colorado Medical School

The Department of Cellular and Structural Biology invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level (exceptional, more senior candidates will be considered). Qualified candidates will have an M.D. or Ph.D. degree and use cellular or molecular techniques to investigate the neurobiology or development of chemosensory systems. They will be expected to develop an outstanding research program and to participate in teaching. Send curriculum vitae, a one-page statement of research interests, and names and addresses of three references to: **Dr. Thomas E. Finger, Department CSB-SC, UCHSC, B-111, 4200 East Ninth Avenue, Denver, CO 80262.** Review of applications begins November 17, 1995, and will continue until the position is filled. *The University of Colorado Health Sciences Center is committed to Equal Employment Opportunity/Affirmative Action.*

Midwestern University (MWU) plans to open a Branch Campus on its 120-acre site in greater Phoenix (Glendale) Arizona in September 1996. The Arizona College of Osteopathic Medicine is MWU's inaugural program on the new campus. Positions at the **ASSISTANT**, **ASSOCIATE**, and **FULL PROFESSOR** levels are available for Anatomy (4), Biochemistry (2) and Physiology (2). Faculty hired will begin by the Summer of 1996. Initial interviews will be held on the campus of MWU in Downers Grove, Illinois.

MWU currently has three colleges: The College of Osteopathic Medicine, The Chicago College of Pharmacy, and The College of Allied Health Professions. MWU offers a competitive salary and benefits package and the potential for professional growth. Applicants are asked to send a résumé and statement of teaching and research interests to: **Leonard Mennen, D.O., Provost, Midwestern University, 555 31st Street, Downers Grove, IL 60515.** *An Affirmative Action/Equal Opportunity Employer.*

Department of Psychology, University of Illinois at Urbana-Champaign (UIUC), **ASSISTANT PROFESSOR**, Psychopharmacologist. The Department of Psychology of the University of Illinois at Urbana-Champaign invites applications for a full-time tenure-track faculty position beginning fall 1996. Candidates holding the Ph.D. degree and conducting research in any area of psychopharmacology/neuropharmacology that has a relationship to behavior will be considered. Teaching is at both undergraduate and graduate levels. Salary is dependent on qualifications and experience. For full consideration, a curriculum vitae, representative reprints, a statement of research interests, and three letters of recommendation should be sent by 31 January 1996 to: **William Greenough, Psychology Department, University of Illinois, Beckman Institute, 405 North Mathews, Urbana, IL 61801.** Telephone: 217-333-4472. *UIUC is an Affirmative Action/Equal Opportunity Employer.*

### SENSORY PSYCHOPHYSICIST/ NEUROPSYCHOLOGIST

The John B. Pierce Laboratory, Center for Research in Health and the Environment, an affiliate of Yale University, seeks independent investigator at the junior level (equivalent to **ASSISTANT PROFESSOR**), preferably in chemosensation or somatosensation. Send curriculum vitae and names of three references by February 1, 1996, to: **Sensory Search, John B. Pierce Laboratory, 290 Congress Avenue, New Haven, CT 06519.** *An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR:** Two tenure-track positions open: 1) Primary qualification in developmental biology, with some experience in molecular biology/genetics. 2) Primary qualification in organismic physiology, with some experience in microbiology. Candidates for both positions should be able to teach in the general biology sequence and be qualified to offer courses in the core science sequence. Supervise undergraduate research projects. Ph.D. required, postdoctoral teaching experience is desirable. Experience in an urban academic setting is a plus. Applications, including curriculum vitae, the names of three references, and all transcripts, should be submitted to: **Dr. Michael E. Held, Chair, Biology, Saint Peter's College, Jersey City, NJ 07306.** Application deadline is December 1, 1995. *Saint Peter's College is an Equal Opportunity/Affirmative Action Employer and complies with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973.*



## SCIENTISTS

Expanding Minds

### Improving Bodies

Here at Chiron, we are on the leading edge of biotechnology research and scientific advancement, producing an array of therapeutic and diagnostic tools to advance potential cures for cancer and serious infectious diseases. We have the following opportunities:

#### Principal/Sr. Scientist and Scientist

Two scientists are needed for purification and characterization of proteins from recombinant and natural sources on a wide range of projects: from purification of proteins for research, to development of purification processes for Phase 1 clinical trials. You will design, implement and evaluate purification procedures and characterize the products.

To qualify for the Principal/Senior Scientist position, you must have a PhD in Biochemistry or equivalent and at least 5 years of post-doctoral experience in Biochemistry or a related field. Experience in a biotechnology company is preferred. Job Code LC1.

For the Scientist position, a PhD in Biochemistry or a related field is required. Job Code LC2.

If you have the dedication, spirit and flexibility to rise to our many challenges, send your resume, indicating Job Code of interest, to: Chiron Corporation, Human Resources, 4560 Horton Street, Emeryville, CA 94608. We are an equal opportunity employer.



CHIRON

WHERE GREAT CAREERS COME TOGETHER

## TECHNICAL ASSOCIATE

### BLOOD SUBSTITUTES

#### R&D

At Baxter Healthcare Corporation, our commitment to R&D is evident where state-of-the-art facilities and top-of-the line employees come together. Today, we are seeking a Technical Associate for our Blood Substitutes R&D Division in our far north suburban Chicago Round Lake location.

The chosen candidate will join a team involved in an exciting new breakthrough development program. Working on multiple projects with world class academic, scientific and medical communities on a global scale, you will help develop and coordinate pre-clinical biologic research on a broad spectrum of cutting edge, multidisciplinary research and technical programs. You will also work in close collaboration with RA, QA, Marketing and R&D groups.

We require an advanced degree in Physiology/Toxicology. Good interpersonal and technical writing skills are critical. Industrial and project management experience is preferred.

Baxter offers a competitive salary, comprehensive benefits and an extremely challenging and professional work environment. For confidential consideration, send your resume with salary history to: Baxter Healthcare Corporation, Human Resources, Dept. #BP95124, Rte. 120 and Wilson Road, Round Lake, IL 60073. An Equal Opportunity Employer.

**Baxter**

# DISCOVER

YOUR FUTURE AT GLAXO WELLCOME,  
WHERE DISCOVERY IS OUR GOAL  
EVERY SINGLE DAY.

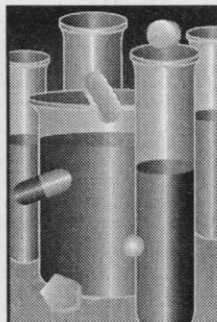
An unrelenting commitment to the discovery of medicines has made Glaxo Wellcome America's largest pharmaceutical company. Our mission, and the source of our success, is not merely to **make medicines**, but to **find them** — through some of the most intensive research conducted in the pharmaceutical industry today.

We invite you to be part of our Research & Development atmosphere, where professional excellence teams with scientific leadership to advance the progress of drug discovery. The following opportunities are available at the Glaxo Research Institute located at our Corporate Headquarters in Research Triangle Park, N.C.

#### DEPARTMENT HEAD - HUMAN GENETICS

Individual will develop and foster genetics initiatives at the International level with both Glaxo Wellcome and our Biotechnology Company partners. Duties will include disease gene identification, diagnostic applications and therapeutic opportunities.

This position requires a Ph.D. or M.D. Degree in Genetics (or a related area) with a minimum of 9 years experience in the field of Human Genetics. Background must include proven leadership and achievements, both internally and externally, in Genetics/Gene Identification. Excellent communication and multidisciplinary skills are required, as is a proven publication record. **Please refer to Job # ASC079001 on all resumes.**



#### RESEARCH INVESTIGATOR I/ RESEARCH INVESTIGATOR II/ SR. RESEARCH INVESTIGATOR Enzymology

This position will be filled at the appropriate level based on the applicant's educational background and experience level. The selected individual will design, develop and implement automated high throughput enzyme assays in order to support the drug development efforts aimed at inhibiting enzyme therapeutic targets. Duties will include supervising the screening efforts of these targets and leading the development of structure-activity relationships (SAR) on projects with enzyme targets.

This position requires a BS in Chemistry, Biochemistry or a related area, with 6 years experience in analytical chemistry, robotics and enzymology. Prefer a minimum of 5 years pharmaceutical industry experience in automating enzyme assays, developing SAR, data analysis and handling - OR a Master's or Ph.D. Degree with 1-4 years related experience. Knowledge of enzyme mechanisms and mechanism of Inhibition as it applies to drug discovery and development are required, along with excellent supervisory and communication skills. Must have a proven publication record. **Please refer to Job # ASC070701 on all resumes.**

The rewards of working at Glaxo Wellcome include excellent salaries and a flexible benefits package, a beautiful headquarters campus, ultra-modern facilities, and an excellent location in the Raleigh-Durham area of North Carolina. For confidential consideration, send your resume, including salary history and indicating the position title and Job #, to: Human Resources, Glaxo Wellcome, P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please) An Equal Opportunity Employer M/F/D/V

**GlaxoWellcome**

GLAXO WELLCOME,  
ON THE BRINK OF DISCOVERY.



## POSITIONS OPEN

### UNIVERSITY OF MICHIGAN

#### Pharmacologic Therapy for Retinal Dystrophies

We are recruiting a new **FACULTY MEMBER** to work on neuronal injury repair and rescue for retinal degenerations using pharmacologic approaches. The foremost goal is to identify factors that are neuroprotective for photoreceptors. Preferred background is in molecular or cell biology. Experience in retina and with neurotrophic factors is desirable though not required.

Current group has expertise in anatomy, neurophysiology, and molecular genetics of retinal disease and is working with transgenic animal models and light-damaged rats.

Candidates must have Ph.D. or M.D. and relevant postdoctoral experience. Position is non-tenure-track Research Investigator or Assistant/Associate Research Scientist. Start-up funds are available.

The candidate must merit a secondary appointment in a basic science department of the Graduate or Medical Schools, where teaching and service are expected.

Interested individuals should submit a curriculum vitae, description of current and future research plans, and names of three references.

#### Reply to:

Paul Sieving, M.D., Ph.D.

Retinal and Macular Dystrophy Center

Department of Ophthalmology

1000 Wall Street

Ann Arbor, MI 48105

*Equal Opportunity/Affirmative Action Employer; women and minorities are encouraged to apply.*

**Behavioral/Cognitive Neuroscientist.** The Department of Brain and Cognitive Sciences in the University of Rochester seeks an **ASSISTANT PROFESSOR** for a tenure-track position. We are interested in persons working within the broad domain of brain and behavioral plasticity. Individuals whose research concerns neural mechanisms of learning and memory, or development/reorganization in perceptual or motor systems, are especially encouraged to apply. The successful candidate will be a key member of a group employing neurobiological, computational, and behavioral approaches to learning and developmental plasticity. Potential applicants can learn more about the Department and its programs from our web site: <http://www.bcs.rochester.edu/bcs/>. Applicants should submit a curriculum vitae, a brief statement of research interests, and the names of three referees to: Search Committee Chair, Department of Brain and Cognitive Sciences, University of Rochester, Rochester, NY 14627. Applications will be accepted until 1 February 1996, or until a suitable candidate is found. *An Affirmative Action/Equal Opportunity Employer.*

**CHAIR, Department of Microbiology/Immunology—Medical College of Pennsylvania and Hahnemann University School of Medicine (MCPHU)—The Medical College of Pennsylvania and Hahnemann University** is a large health professions university formed in 1995 from the merger of two antecedent institutions—the Medical College of Pennsylvania and Hahnemann University. The University is, in turn, the educational and research component of Allegheny Health, Education, and Research Foundation (AHERF). AHERF is a nonprofit, statewide integrated academic health system which is proactively meeting the challenges of the changing healthcare environment. The University is located in Philadelphia and consists of five schools: School of Medicine, School of Nursing, School of Health Sciences and Humanities, School of Graduate Studies, and a proposed School of Public Health. The School of Medicine is accepting applications and nominations for the position of **PROFESSOR** and **CHAIR** of the Department of Microbiology/Immunology. The existing strengths within the system and the collective resources available make this a most challenging and exciting position. We seek a distinguished scientist with a strong record of significant scientific productivity and an ability to attract external funding. The successful candidate will be an academic leader who will nurture the growth and guide the future of this department into the next century. A letter of interest or nomination and curriculum vitae should be sent to: Richard L. Spielvogel, M.D., Chair, Search Committee, Medical College of Pennsylvania and Hahnemann University, School of Medicine, 2900 Queen Lane, Philadelphia, PA 19129, c/o Jane Underwood. MCPHU is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### ASSISTANT PROFESSOR IN BIOLOGY

The Biology Department at the University of Evansville seeks to fill a tenure-track position as an **ASSISTANT PROFESSOR** to begin August 1996. Applicants should have a strong commitment to teaching and the independent university tradition. Teaching responsibilities include bacteriology, immunology, introductory biology, and microbiology for nursing students. The candidate will also be expected to develop a research program involving undergraduate students, advise biology students, and engage in professional development and University service. A Ph.D. is required and teaching experience is expected. Pay will be commensurate with education and experience.

Applicants should send curriculum vitae, copies of undergraduate and graduate transcripts, a statement describing commitment to undergraduate teaching and research, and three letters of reference to: Karen Ott, Chair, Department of Biology, University of Evansville, Evansville, IN 47722. Applications must be received by December 1, 1995.

The University of Evansville is an independent, church-related, selective admissions University located in a city of 135,000 in southwestern Indiana. It offers a comprehensive program of instruction including liberal arts and sciences, engineering, business, nursing, physical therapy, and education. Enrollment numbers approximately 2700 full-time students. The University also includes a major branch campus in England, Harlaxton College.

*The University of Evansville operates under a non-discriminatory policy with regard to race, color, religion, national origin, gender, age or disability.*

**Invertebrate Zoologist.** The Biology Department of Albion College announces a tenure-track position as **ASSISTANT PROFESSOR** to begin in August 1996. A Ph.D. is required, and college teaching experience and a commitment to undergraduate excellence are preferred. The successful candidate will be expected to teach majors' course in Invertebrate Zoology and Ecology, lecture/lab responsibilities in team-taught "Principles of Biology" and "Organismal Diversity." Seminar courses in specialty area encouraged. A research program incorporating undergraduate students is expected. Facilities include modern building with TEM, SEM, controlled environment rooms, greenhouse, and 135-acre nature center. Send letter of application, current curriculum vitae, transcripts, and three letters of reference to: Dr. Ruth E. Schmitter, Chair, Biology Department, Albion College, Albion, MI 49224. Deadline for applications is December 15, 1995. *Albion College is an Equal Opportunity Employer and encourages applications from women and minority candidates. Additional information is available at Internet site <http://www.albion.edu>.*

### UNIVERSITY OF WASHINGTON

#### Chemical Senses Neuroscientist

Tenure-track **ASSISTANT PROFESSOR** position in the Department of Otolaryngology-Head and Neck Surgery at the University of Washington. Candidate should be a Ph.D. or M.D. with postdoctoral training. Preferred research interests are cellular, molecular, or developmental problems in the olfactory system. Please send a curriculum vitae, a brief statement of research interests, and the names and addresses of three references to: Marc D. Coltrera, M.D., Oro-HNS, University of Washington, Box 356515, Seattle, WA 98195-6515. *The University of Washington is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR

The Department of Biology invites applications for a **TENURE-TRACK** position for a microbiologist beginning fall 1996. A Ph.D. is required. The candidate is expected to teach undergraduate courses in microbiology, immunology, virology, and cell physiology, as well as to offer graduate courses in the area of specialty. Development of an active research program, pursuit of extramural support, and supervision of M.S. students is also required. Deadline for application is December 15, 1995. Submit résumé, copies of transcripts, and three letters of reference by December 15, 1995 to: Dr. Richard Fehn, Acting Chair, Department of Biology, California State University, 5500 University Parkway, San Bernardino, CA 92407. FAX: 909-880-7005. *An Equal Opportunity/Affirmative Action/Section 504, Title IX Employer.*

## POSITIONS OPEN

Molecular Geneticist. Tenure-track position at **ASSISTANT PROFESSOR** level to begin in September 1996. Duties to include teaching introductory biology, genetics, and a graduate course in area of expertise. Should be willing to employ innovative methods in teaching. Must maintain a research program involving undergraduate and graduate students and be willing to apply for external grants. Start-up funds available. Salary competitive and dependent upon experience. Ph.D. required and postdoctoral experience preferred. Send curriculum vitae, transcripts, three letters of recommendation, and a statement of teaching philosophy and research goals to: The Chair, Hiring Committee, Department of Biological Sciences, Towson State University, Towson, MD 21204. Deadline for application is 31 December 1995. *Towson State University is an Equal Opportunity/Affirmative Action Employer and has a strong institutional commitment to diversity. Women, minorities, persons with disabilities, and veterans are encouraged to apply.*

### ASSISTANT PROFESSOR

The Department of Biology invites applications for a **TENURE-TRACK** position for a vertebrate physiological ecologist beginning fall 1996. A Ph.D. is required. The candidate is expected to teach undergraduate courses in physiological ecology, comparative animal physiology, first-year organismal biology, as well as to offer graduate courses in the area of specialty. Development of an active research program, pursuit of extramural support, and supervision of M.S. students is also required. Deadline for application is December 15, 1995. Submit résumé, copies of transcripts, and three letters of reference by December 15, 1995 to: Dr. Richard Fehn, Acting Chair, Department of Biology, California State University, 5500 University Parkway, San Bernardino, CA 92407. FAX: 909-880-7005. *An Equal Opportunity/Affirmative Action/Section 504, Title IX Employer.*

### RESEARCH FACULTY POSITION

#### Genetics/Genetic Epidemiology

North Shore Health System, Long Island, New York's largest healthcare network, is seeking applicants at the **ASSISTANT or ASSOCIATE PROFESSOR** level for its Division of Biology and Human Genetics, a newly formed research division of the Department of Medicine, at North Shore University Hospital in Manhasset. This is a rapidly growing institution with major research strengths in human immunology, now expanding into the area of human genetics. Candidates should have proven ability to carry out independent research. A microsatellite genotyping facility is currently active, and a viral vector production laboratory is under construction for support of clinical gene therapy trials. Applicants whose research focus relates to autoimmune disease or cancer are particularly encouraged to apply. This is an exceptional opportunity to participate in the growth of a new research division with outstanding institutional support for the right candidate. Address correspondence to: Dr. Peter K. Gergersen, Chief, Division of Biology and Human Genetics, North Shore University Hospital, 350 Community Drive, Manhasset, NY 11030. *We are an Equal Opportunity Employer. Minorities/Female/Disabled/Veterans.*

### EXPERIMENTAL PATHOLOGIST

The Department of Pathobiology at the University of Florida College of Veterinary Medicine has a tenure-track position for an experimental pathologist at the rank of **ASSOCIATE/ASSISTANT PROFESSOR**. Applicants should have D.V.M. and Ph.D. degrees or equivalents and a record of accomplishment in research. Responsibilities will include development of a competitive research program, teaching general pathology to veterinary students, and graduate instruction. ACVP board-certification is desirable, but not required. The Department has excellent research facilities within a dynamic Health Science Center complex and strong, extramurally funded research programs in molecular parasitology, viral and mycoplasma disease pathogenesis, vaccine development, and wildlife diseases. Applicants should submit a letter outlining professional goals, a curriculum vitae, and a list of three professional referees to: Dr. William L. Castleman, Chairman, Department of Pathobiology, College of Veterinary Medicine, P.O. Box 110880, University of Florida, Gainesville, FL 32611-0880. Department World Wide Web Page: <http://www.vetmed.ufl.edu/path/path.htm>. Review of applications will begin after January 1, 1996 and will continue until the position is filled. The position will start on or after July 1, 1996.

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



**Faculty Positions in Environmental Chemistry-  
Department of Environmental Sciences**

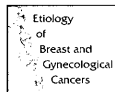
The Department of Environmental Sciences, Cook College, Rutgers - The State University of New Jersey, invites applications for two faculty positions in the area of Environmental Chemistry available July 1, 1996. It is anticipated that one appointment will be as an Associate or Full Professor with immediate evaluation for tenure, and the other as a tenure-track Assistant Professor, although the Department will select the two best candidates meeting program needs.

For the more senior position (DESEC-1) the Department seeks an environmental scientist who works at the interface between biology and chemistry, with emphasis on anthropogenic chemicals in aquatic systems (e.g., bioaccumulation; bioavailability toxicity; transfer through aquatic food chains). The ideal candidate has experience in the fields of environmental chemistry, biology or engineering, aquatic toxicology, or closely related disciplines, and a strong record of teaching and funded research. The successful candidate will be expected to contribute significantly to a developing Department concentration in aquatic ecosystem exposure and assessment, and specifically to a focus in environmental chemistry. She or he will enhance collaboration with Marine and Coastal Sciences, the Environmental and Occupational Health Science Institute, Biology/Ecology, and Environmental Engineering on a university-wide basis in both teaching and research.

For the second position (DESEC-2), a focus in aquatic inorganic chemistry is sought. The ideal candidate obtained a Ph.D. in aquatic or environmental chemistry/engineering or equivalent, and has postdoctoral experience. A specialty in trace metals, nutrient cycling, or biogeochemistry in aquatic ecosystems is preferred, but other sub-specialties will be considered. The successful candidate will teach in the undergraduate and graduate Environmental Sciences programs, and will be expected to develop a nationally-recognized and funded research program.

Please send a letter of application noting which position, *curriculum vitae*, transcripts (Assistant Professor position only), brief statement of research and teaching interest, and the names, addresses (including electronic) and telephone numbers of at least 3 references to: Dr. Peter F. Strom, Search Committee Chair (Environmental Chemistry Positions); Environmental Sciences, ENRSB; Cook College, Rutgers University; New Brunswick, NJ 08903-0231. Review of applications will begin January 4, and will continue until the positions are filled.

*Rutgers University is an Equal Employment Opportunity/Affirmative Action employer.*



**Etiology of Breast and Gynecological  
Cancers Conference**

**Ninth International Conference on  
Carcinogenesis and Risk Assessment**

The objective of this conference is to review the most recent advances in the fields of breast and gynecological carcinogenesis and to discuss data of environmental influences that may play a role in these hormone-mediated neoplasias. Emphasis will be placed on discussion of validation and extrapolation issues from animal models to man and their impact in risk assessment. This conference is the ninth international meeting in a series covering research and contemporary issues on carcinogenesis and risk assessment.

Nov. 29 - Dec. 2, 1995  
Barton Creek Conference Resort  
Austin, Texas

Chairmen  
C. Marcelo Aldaz, MD.  
University of Texas  
M.D. Anderson Science Park

Michael Gould, Ph.D.  
University of Wisconsin - Madison

John McLachlan, Ph.D.  
Tulane/Xavier Center  
for Bioenvironmental Research

For information call: 512-237-2403  
E-mail: mlf@odin.mda.uth.tmc.edu

## CELLULAR BIOCHEMISTRY

### Scientist/Sr. Scientist

SmithKline Beecham, a worldwide leader in pharmaceutical research, has an excellent research opportunity in our Cellular Biochemistry Department for a Scientist to work in osteoporosis research.

The selected candidate will have significant involvement in the development of experimental systems to assess osteogenic differentiation by: establishing tissue-culture cell lines, both primary human osteoblasts cultures and osteosarcoma cell lines; and developing and characterizing new immortalized cell lines. Duties also include developing techniques to examine osteoblasts/adipocyte and chondrocyte differentiation including, enzyme assays, histological staining procedures and gene expression studies.

Qualifications include a BS or BA in biological sciences with 2-5 years' research experience in an academic or commercial laboratory where teamwork and collaboration have been necessary. Molecular biology background is highly desirable, as is culture expertise.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation/benefits/relocation package. For confidential consideration, send your resume and salary requirements to: SmithKline Beecham Pharmaceuticals, Job Code H5-0374, P.O. Box 2646, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



**SmithKline Beecham**  
Pharmaceuticals

Challenging the natural limits.

## RESEARCH MICROBIOLOGIST NATURAL PRODUCTS SECTION

At Wyeth-Ayerst Research, we're meeting the challenges of a new decade and the next century by building upon our strengths and creating an environment that fosters a more dynamic Research and Development organization. As a leader in the research and development of therapeutic compounds, our drugs have been instrumental in the treatment of infectious diseases, cancer, cardiovascular and central nervous system diseases and for women's health.

A position for a microbial biochemist/physiologist is available. This individual will be a specialist in microbial fermentation and will conduct research to elucidate the biosynthetic pathways of novel metabolites as well as directed fermentation and biotransformation studies to generate new analogs.

Experience in the optimization of medium and environmental conditions to enhance the productivity of secondary metabolites is highly desirable. Various classes of organisms producing interesting compounds will be emphasized.

Candidates should have a Ph.D. degree in Microbiology or a related discipline with at least 6-8 years of relevant experience.

This position emphasizes strong interactions with a staff of highly experienced research scientists and presents a valuable opportunity to acquire a broad background in a multi-disciplinary pharmaceutical discovery environment.

Wyeth-Ayerst offers a competitive salary and comprehensive benefits. Qualified applicants should send resume to:  
**Wyeth-Ayerst Research, Human Resources Dept., Position  
#L-1230, P.O. Box 8299, Philadelphia, PA 19101.**



Leading The Way for a Healthier World

Or you may fax your resume directly into our centralized Research resume database at (610) 989-4854. Equal Opportunity Employer, M/F/D/V.

## POSITIONS OPEN

### ALBERT EINSTEIN COLLEGE OF MEDICINE

The Department of Cell Biology seeks two tenure-track **ASSISTANT PROFESSORS** with a record of excellence in research and an innovative research program, using mammalian or yeast systems, that will complement current research in the Department: gene expression—including chromatin, transcription, and RNA processing; molecular immunology; signal transduction; membrane dynamics and intracellular trafficking; cell-cell interactions; the cell cycle. The Department sponsors NIH Training Grants to support pre and postdoctoral students and provides numerous core facilities. Albert Einstein is located in a pleasant residential district, with easy access to Manhattan or the suburbs of Westchester County and Connecticut. Substantial packages will be provided to start up and sustain the laboratories of successful candidates. Please submit a curriculum vitae, a statement of research interests and plans, as well as the names of three references to: **Search Committee (CB), Department of Cell Biology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. Equal Opportunity Employer.**

### PLANT BIOLOGY POSITIONS

The Department of Environmental and Plant Biology at Ohio University invites applicants with research interests in evolutionary plant biology and freshwater aquatic botany to apply for two tenure-track positions at the **ASSISTANT PROFESSOR** level. Candidates are expected to have completed the Ph.D. degree and to develop an active research program with the potential for attracting doctoral students and securing external funding. The successful candidates will teach upper-division undergraduate/graduate courses in either evolutionary plant biology and population biology or phycology and aquatic systems, participate in introductory courses for majors or non-majors, and provide research opportunities for doctoral, master's, and undergraduate students.

For the position of Evolutionary Plant Biologist, candidates should be engaged in an experimental program to explore processes of evolution, and be willing to engage in interdisciplinary activities with ecologists, systematists, and paleontologists pursuing phylogenetic studies. For the position of Freshwater Aquatic Botanist, candidates should be engaged in studies of lake, stream and/or river systems, or the algae that inhabit them, and engage in interdisciplinary activities with other water resource programs at Ohio University. Primary research focus may be ecological, systematic, or organismic.

Applicants should send their curriculum vitae, a statement of research interests, and provide three letters of recommendation to be received by December 15, 1995, and sent to: **Chair of the Search Committee, Department of Environmental and Plant Biology, Ohio University, Athens, OH 45701-2979. Ohio University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

**Biologists: Two TENURE-TRACK POSITIONS** available, beginning fall 1996. The primary mission of Grant Valley State University (GVSU) is the education of undergraduates. The Biology Department is looking for individuals to join a dynamic faculty dedicated to that mission and who are looking for the additional opportunity to pursue their research interests while involving students in their work. All faculty in the department are expected to be broadly trained and involved in the instruction of freshmen. The fields of specialization the department is seeking are 1) a cell/molecular biologist who would teach the cellular aspects of cellular and molecular biology in a required majors' course; 2) a plant biologist who would teach a majors' course in algal, fungal, and plant morphology. Both will teach other courses as qualified and appropriate. For both positions a Ph.D. is required and teaching experience is desirable, as is evidence of a desire to involve students in research. Grand Valley State University is a young, rapidly growing regional university of 14,000 students. Applicants should submit a letter of application, curriculum vitae, separate statements of teaching philosophy and research interests, transcripts (photocopies are acceptable), and three letters of recommendation to: **Dr. John P. Shontz, Chairperson of Search Committee, Biology Department, Grand Valley State University, Allendale, MI 49401.** Review of applications will begin on December 15, 1995, and the deadline for receipt of applications is January 3, 1996. Questions may be directed via Email at [shontzj@gvsu.edu](mailto:shontzj@gvsu.edu), Telephone: 616-895-2470 or FAX: 616-895-3506. GVSU actively complies with all Equal Opportunity and Affirmative Action policies and practices.

## POSITIONS OPEN

### GENERAL BIOLOGY AND SCIENCE EDUCATION

Salem State College is seeking a **TENURE-TRACK** faculty member for the fall of 1996 in the area of general biology and science education. Responsibilities include teaching general biology and science education courses; coordination and implementation of secondary education biology programs at undergraduate and graduate levels; working with students returning for teaching certification; working with students in cognate departments who plan to teach at the secondary school level; coordination of department participation in community based education programs. Required qualifications include a Ph.D. in biology or M.A./M.S. in biology with Ed.D. in secondary education or a related field; two years of successful college level teaching; and one year of successful science teaching at the secondary level. Preferred are experience with other science (especially chemistry, physics, or geological sciences); demonstrated ability to maintain good working relations with community groups whose focus is education; and experience in and commitment to working in a multicultural, multiracial environment with students of diverse backgrounds and learning styles. Salary is competitive and commensurate with education and experience.

Application review will begin early January 1996.

To apply, send letter of application, résumé and three letters of reference to:

**Office of Equal Opportunity and Human Rights  
Salem State College  
352 Lafayette Street  
Salem, MA 01970**

*Salem State College is an Equal Opportunity/Affirmative Action Employer. Persons of color, women, and persons with disabilities are strongly urged to apply.*

### CHAIRMAN OF THE DEPARTMENT OF CELL BIOLOGY AND ANATOMY Finch University of Health Sciences/ The Chicago Medical School (FUHS/CMS)

Applications and nominations are invited for the **CHAIR** of the Department of Cell Biology and Anatomy. The Chair reports to the Dean of the Medical School and is responsible for providing academic and administrative leadership in research and in the education of medical, graduate, and postgraduate students. The candidate should have a keen interest and ability in teaching, a national/international reputation for scientific contributions in cell biology and anatomy or closely related fields, and the skills necessary to lead an established Department and to enhance the Department's strengths in research, teaching and service.

Applications will be accepted until January 15, 1996, and should include: curriculum vitae, a summary of current research, copies of representative publications, a description of teaching and administrative experience, and the names of three or more references. Send correspondence to: **Yoon Berm Kim, M.D., Ph.D., Chair of the Search Committee, FUHS/CMS, 3333 Green Bay Road, North Chicago, IL 60064. Affirmative Action/Equal Opportunity Employer.**

### AQUATIC ANIMAL MEDICINE CORNELL UNIVERSITY

The Department of Microbiology and Immunology, College of Veterinary Medicine seeks candidates for a tenure-track position expected to be at the **ASSISTANT PROFESSOR** level. The successful applicant will develop an independent, competitively funded research program focusing on fish diseases and will teach veterinary and graduate students. We are particularly interested in candidates with established expertise in molecular approaches to disease research. Applicants must have a D.V.M./Ph.D. or a Ph.D. and postdoctoral experience. Applications including a curriculum vitae, outline of research interests, and the names of three referees should be sent to: **Dr. Roger J. Avery, Department of Microbiology and Immunology, College of Veterinary Medicine, C5 173 Veterinary Medical Center, Cornell University, Ithaca, NY 14853-6401.** Screening of candidates will begin immediately and will continue until the position is filled. Inquiries will be welcomed (Telephone: 607-253-3400; Email: [rja5@cornell.edu](mailto:rja5@cornell.edu)). Cornell University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### EVOLUTIONARY GENETICIST

University of Arizona

Department of Ecology & Evolutionary Biology

The Department of Ecology and Evolutionary Biology seeks an evolutionary geneticist (Ph.D. required) to take a leadership role in interdisciplinary genetics campus-wide. The research area could involve either experimental or theoretical approaches to the genetics of any group of organisms, at any level from molecular to population, so long as the focus is on evolutionary questions. Important criteria include excellence in research and teaching at undergraduate and graduate levels. Although the search is focused at the **ASSOCIATE PROFESSOR** level, other ranks are not excluded. A 12-month salary is available when duties include a significant administrative component. Application review begins December 15, 1995 and continues until filled. Please send curriculum vitae, statement of research and teaching interests, and three letters of recommendation to: **Dr. Richard Michod, Chair, Evolutionary Genetics Search Committee, Department of Ecology & Evolutionary Biology, Biological Sciences West, University of Arizona, Tucson, AZ 85721.**

*The University of Arizona is an Equal Opportunity/Affirmative Action/ADA Employer; applications from women and minorities are encouraged.*

**Biology:** Hartwick College invites applications for two full-time anticipated **TENURE-TRACK** positions beginning September 1996. Hartwick is a liberal arts college with approximately 1450 students located in upstate New York. Successful candidates must demonstrate excellence in undergraduate teaching, establish a research program involving undergraduate students, and be willing to seek external funding for research. Ph.D. required. We are seeking 1) a neurobiologist to teach anatomy and physiology and upper-level courses such as neurobiology, invertebrate or vertebrate zoology, and electron microscopy, and to advise pre-allied health students; and 2) a plant/aquatic ecologist to teach plant morphology, plant systematics, limnology, aquatic ecology, and courses in the Environmental Science and Policy Program, such as ecology and the environment and environmental science. Please send statement of teaching and research interests, curriculum vitae, and three letters of recommendation to: **Dr. Linda A. Swift, Chairperson, Biology Department, Hartwick College, Oneonta, NY 13820.** Deadline for receipt of applications is January 26, 1996. *Minority and women candidates are especially urged to apply. An Equal Opportunity Employer.*

### ANIMAL PHYSIOLOGY ASSISTANT PROFESSOR BARNARD COLLEGE

The Department of Biological Sciences at Barnard College, Columbia University is seeking a full-time **ASSISTANT PROFESSOR** (starting September 1, 1996) to participate in undergraduate teaching and conduct on active research programs.

Primary teaching responsibilities will be lecture and laboratory courses in animal physiology. Candidates should be broadly trained in biology and able to teach introductory courses as well as advanced courses in area of specialty (field open). Ph.D. required; postdoctoral and prior teaching experience desirable.

Submit curriculum vitae with a list of publications, statement of research and teaching experience and plans, three representative publications, and three letters of recommendation to: **Physiology Search Committee, Department of Biological Sciences, Barnard College, 3009 Broadway, New York, NY 10027. Telephone: 212-854-2437.** The department will begin reviewing applications on December 10, 1995. *An Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.*

### NEUROSCIENTIST

Two **JUNIOR FACULTY** or **POSTDOCTORAL** positions are available to study local signaling between neurons and astrocytes, using *in vivo* and *in vitro* preparations. (See: *Science*, 263:1768-1771, 1994). Background either in electrophysiology or in cell transfection, plasmid preparation, vector construction is desirable. Submit curriculum vitae and reference list to: **Maiken Nedergaard, M.D., Ph.D., Department of Cell Biology and Anatomy, New York Medical College, Basic Science Building, Valhalla, NY 10595. FAX: 914-993-4653.**



# Special Advertising Supplement

1 December 1995

## California Careers: Biotechnology & Pharmaceutical Industry Trends

In this special advertising supplement, we will look at current trends and news surrounding the biotech and pharmaceutical industry in California, making this issue an excellent opportunity to draw more attention to the scientific career opportunities available within your company.

Space reservation deadline:  
First Come, First Served Basis until November 20

Call Bethany Ritchey  
(202) 326-6541

### **25% Discount**

Repeat your ad within 8 weeks and  
receive 25% off the second placement!

Each recruitment advertisement in this issue will automatically be posted on our on-line career service, Science Global Career Network.

**SCIENCEGLOBAL**  
**CAREER NETWORK**

<http://www.aaas.org>

(Once you enter the AAAS home page,  
choose SCIENCE from the menu)

**SCIENCE**  
COVERS THE WORLD

## POSITIONS OPEN

### ASSISTANT PROFESSOR INSECT EVOLUTIONARY BIOLOGY

The Department of Biology invites applications for a tenure-track, **ASSISTANT PROFESSOR** position in insect systematics and evolution. A Ph.D. is required; postdoctoral experience is preferred. The successful applicant will be expected to develop an externally funded research program that uses innovative approaches in the study of insect evolution. Teaching responsibilities will include an upper-division course in insect systematics. Utah State University is a Carnegie I Research institution; the Department of Biology consists of 35 faculty, including several individuals whose primary research interests involve insects. The Department also maintains an insect collection with over two million specimens. There are opportunities for collaboration through the Ecology Center, the Intermountain Herbarium, the Biotechnology Center, the USDA Bee Biology and Systematics Laboratory, and the Utah Agricultural Experiment Station.

Applicants should submit a curriculum vitae, a statement of research and teaching interests, representative reprints, and have at least three letters of recommendation sent to: **Dr. Frank J. Messina, Insect Evolutionary Biology Search Committee, Department of Biology, Utah State University, Logan, UT 84322-5305. Email: Messina@cc.usu.edu.** Review of applications will begin immediately and will continue until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR BIOLOGICAL ANTHROPOLOGY

The Department of Anthropology at the University of Michigan invites applications for a **TENURE-TRACK** position in biological anthropology. Applicants should have a Ph.D. and will be expected to develop a laboratory-based research program with extramural grant support to investigate the population and molecular genetics of humans. Send curriculum vitae, names and addresses of three references, and statements of research and teaching interests to: **John Mitani, Department of Anthropology, University of Michigan, Ann Arbor, MI 48109-1382.** The University of Michigan is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### ASSISTANT PROFESSOR POSITIONS

The Morehouse School of Medicine Neuroscience Institute invites applications for full-time positions at the **ASSISTANT PROFESSOR** level. The successful candidates will be expected to have expertise in one or more of the following areas: electrophysiology, optical imaging, signal transduction, neural development, or neural regeneration. Successful applicants will join a recently funded program that supports electrophysiologists and cellular/molecular biologists working on areas such as circadian rhythm, signal transduction, neurotoxicity, and optical imaging, and will work closely with the Director of the Institute to develop their own independent, externally funded research program. Opportunities for joint appointments in the pre-clinical departments at Morehouse School of Medicine are available. Interested candidates should send their curriculum vitae, the names of three referees, a statement of interest, and representative reprints by November 30, 1995 to: **Peter R. MacLeish, Ph.D., Director, Morehouse School of Medicine Neuroscience Institute, Morehouse School of Medicine, 720 Westview Drive, S.W., Atlanta, GA 30310-1495.**

*The Morehouse School of Medicine is an Equal Opportunity Employer.*

### BIOLOGY POSITION BOTANY/ECOLOGY

Wesleyan College has a tenure-track, **ASSISTANT PROFESSORSHIP** in biology for a botanist/ecologist. Ph.D. required. Preference given to broadly trained botanists able to teach some or all of the following courses: botany, general ecology, biological modelling, biostatistics, evolution. Wesleyan currently maintains grant support from the NSF and NIH and has instituted a research-based curriculum in the biological sciences.

Committed to becoming a preeminent liberal arts college for women, Wesleyan emphasizes critical thinking, collaborative learning, writing across the disciplines, and student-faculty research. Submit letter of application, curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Ronald Toll, Chair, Biology Department, Wesleyan College, Macon, GA 31297-4299** by December 8, 1995. *Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.*

## POSITIONS OPEN

### PLANT MOLECULAR BIOLOGIST Tenure-Track Assistant Professor

The Department of Plant Biology, Southern Illinois University at Carbondale, has available a tenure-track **ASSISTANT PROFESSOR** position in plant molecular biology beginning August 16, 1996. Minimum qualifications are a doctoral degree in plant biology/botany; experience in a relevant postdoctoral research position; previous coursework in molecular plant biology; teaching experience in plant biology/biology courses; research experience in gene molecular plant biology; and eligibility for participation in a plant biology doctoral program. Qualified candidates should send letter of interest, curriculum vitae, three letters of reference, and copies of relevant publications and grants before 15 January 1996 to: **Dr. Walter E. Schmid, Department of Plant Biology, Mailcode 6509, Southern Illinois University at Carbondale, Carbondale, IL 62901-6509.** *Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR** of Plant Biochemistry with 70% research and 30% teaching responsibilities, located in the Department of Vegetable Crops, University of California, Davis. Appointee will develop a strong research program investigating fundamental aspects of plant biochemistry. The research should have ultimate application in the understanding and manipulation of plant products, preferably food quality. Examples of potential research areas are plant secondary metabolism, novel plant products, plant hormones, or the accumulation of carbohydrates, vitamins, fiber, flavor, or aroma compounds. To ensure consideration, applications must be received by February 1, 1996. A curriculum vitae, statement of research and teaching interests with documentation, official transcripts if within five years of receiving degree, and names and addresses of at least three professional references should be sent to: **Richard W. Michelmore, Search Committee Chair, Department of Vegetable Crops, University of California, Davis, CA 95616-8746. Telephone: 916-752-1729; FAX: 916-752-9659 or Email: rwmichelmore@ucdavis.edu.** *The University of California is an Affirmative Action/Equal Opportunity Employer.*

# SCIENCE ENTERS CYBERSPACE!

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

- **SCIENCE Electronic Marketplace:** The latest scientific product information from top companies.
- **SCIENCE GLOBAL CAREER NETWORK:** On-line classified advertising.
- **Beyond the Printed Page:** Special interactive projects, important data and a constantly evolving collection of electronic information.
- **SCIENCE On-line:** SCIENCE Table of Contents, the SCIENCE Editorial, This Week in SCIENCE available the same day that the printed version is published!

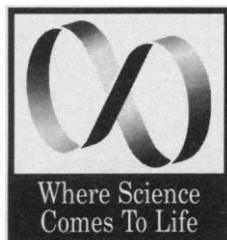
SCIENCE WWW Address: <http://www.aaas.org>

**SCIENCE**  
COVERS THE WORLD

**SCIENCE GLOBAL CAREER NETWORK:**  
On-line Classified Advertising

*Including the SCIENCE  
Electronic Marketplace*





*The AAAS Employment Exchange presents...*

## **AMSIE '96 JOB FAIR**

**1996 AAAS Annual Meeting & Science  
Innovation Exposition (AMSIE'96)**  
Baltimore Convention Center • February 12-13, 1996

### **EMPLOYERS:**

If you have multiple positions to fill or just one...Not enough qualified candidates to choose from...A limited search budget...  
**The AMSIE'96 JOB FAIR can help you.**

- Academic Employers/University Labs • Non-profit Organizations and Government Facilities • Corporate Employers • AMSIE'96 Exhibitors

### **The AMSIE'96 Job Fair Can Save You Time and Money**

If you are looking for senior scientists, research investigators, tenure tracked-faculty, deans and department heads, research assistants and postdocs, grant administrators...AMSIE'96 Job Fair offers:

- ⇒ Hundreds of top-notch candidates from an exclusive list of scientists—the AAAS/SCIENCE membership file
- ⇒ Various scientific disciplines, top level degrees: PhD, MD, BS
- ⇒ 80% in the life sciences
- ⇒ Captive audience of 5,000 scientists from across the U.S. and abroad
- ⇒ Special rates for Academic Employers, Non-Profit Organizations, AMSIE'96 Exhibitors, and AAAS Corporate Members
- ⇒ Unlimited Job Postings (Special rates for SCIENCE advertisers)
- ⇒ No meeting fee required
- ⇒ FREE, on-site interview facilities
- ⇒ Employers can conduct Career Development Seminars: topics include resume writing, interviewing, and other job-hunting skills, as well as the latest information and issues related to scientific careers
- ⇒ FREE resume book of all participating candidates

#### **FOR MORE INFORMATION, CONTACT**

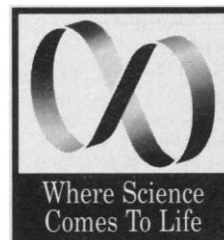
**MAIL:** Kevin Bullock  
AMSIE'96 Job Fair, 1333 H Street, NW,  
Washington, DC 20005

**PHONE:** (202) 326-7049

**FAX:** (202) 289-4021

**E-mail:** kbullock@aaas.org

American Association for the Advancement of Science



*The AAAS Employment Exchange presents...*

## **AMSIE '96 JOB FAIR**

**1996 AAAS Annual Meeting & Science  
Innovation Exposition (AMSIE'96)**  
Baltimore Convention Center • February 12-13, 1996

### **CANDIDATES:**

If you are starting your scientific career or at a pivotal point...looking for a better paying job...switching from academia to industry...the AMSIE'96 JOB FAIR can help you.

### **JOBS, JOBS, JOBS,**

**Biology, Chemistry, Medical Sciences,  
Agricultural, Earth Sciences,  
Engineering, Mathematics, Computer  
Science, Physics, Astronomy, Social and  
Behavioral Sciences**

- ⇒ Employers will be on-site in Baltimore to talk to you about real job openings.
- ⇒ Position Postings: various positions and levels of experience for you to review on-site.
- ⇒ Bring multiple copies of your resume and visit as many employers as you wish
- ⇒ Bonus for all on-site JOB FAIR registrants: FREE Career Development Seminars on Saturday and Sunday (February 10-11, 1996). Seminars will be conducted by top science recruiters and human resource professionals. Topics include: resume writing, interviewing, and other job-hunting skills, as well as the latest information and issues related to scientific careers
- ⇒ You can register in advance and just pick up your badge on-site
- ⇒ You don't have to attend to participate, all resumes will be given to all employers
- ⇒ FREE to AAAS Members and AMSIE'96 registrants
- ⇒ FREE pass to the AMSIE'96 Exposition
- ⇒ Non-member, non-meeting attendees only \$25, on-site

#### **FOR MORE INFORMATION, CONTACT**

**MAIL:** Kevin Bullock  
AMSIE'96 Job Fair, 1333 H Street, NW,  
Washington, DC 20005

**FAX:** (202) 289-4021

**E-mail:** kbullock@aaas.org

American Association for the Advancement of Science

## POSITIONS OPEN

### ANIMAL VIROLOGIST CORNELL UNIVERSITY

The Department of Microbiology and Immunology, College of Veterinary Medicine seeks candidates for a tenure-track position as **ASSISTANT PROFESSOR** of Virology. The successful applicant will be expected to develop an independent, competitively funded research program and to teach veterinary and graduate students. We are particularly interested in candidates who use molecular approaches in infectious disease research and complement existing programs. Applicants must have a Ph.D.; those who also have a D.V.M. degree are encouraged to apply. Experience at the postdoctoral level is required. Applications including a curriculum vitae, outline of research interests, and the names of three references should be sent to: **Dr. Roger J. Avery, Department of Microbiology and Immunology, College of Veterinary Medicine, C5 173 Veterinary Medical Center, Cornell University, Ithaca, NY 14853-6401.** Screening of candidates will begin immediately and will continue until position is filled. Inquiries will be welcomed (Telephone: 607-253-3400; Email: rja5@cornell.edu). *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

Training in Neural Processes in Cognition. **POSTDOCTORAL AND PREDOCTORAL** training investigating higher brain function at multiple levels of analysis. This is a joint program of the Center for the Neural Basis of Cognition between the University of Pittsburgh, its School of Medicine, and Carnegie Mellon University. This is an interdisciplinary program investigating the neurobiology of cognition utilizing neuroanatomical, neurophysiological, behavioral, and computer simulation procedures. Facilities include: computerized microscopy, human and animal electrophysiological instrumentation, behavioral assessment laboratories, brain imaging, the Pittsburgh Supercomputing Center, and access to human clinical populations. Application deadline is February 1, 1996. For information contact: **W. Schneider, University of Pittsburgh, 3939 O'Hara Street, Pittsburgh, PA 15260.** Telephone: 412-624-7061; Email: [NEUROCOG@PITTVMS.BITNET](mailto:NEUROCOG@PITTVMS.BITNET) or [WWW.http://neurocog.lrdc.pitt.edu/npc/](http://WWW.http://neurocog.lrdc.pitt.edu/npc/) and <http://www.cs.cmu.edu/Web/Groups/CNBC.html>.

### POSTDOCTORAL FELLOWS

**POSTDOCTORAL POSITIONS** available immediately to study the molecular mechanisms of lung development. Experience in molecular biology required. *University of British Columbia welcomes all qualified applicants, especially women, aboriginal people, visible minorities, and persons with disabilities. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

Please forward curriculum vitae, reprints, and three references to:

**Dr. V. C. Venkatesh**  
Department of Pediatrics  
#212-950 West 28th Avenue  
Vancouver, BC V5Z 4H4  
Canada  
Telephone: 604-875-2442  
FAX: 604-875-3106  
Email: [vvenk@unixg.ubc.ca](mailto:vvenk@unixg.ubc.ca)

### POSTDOCTORAL/RESEARCH ASSOCIATE

Position available immediately to study regulation and manipulation of fatty acid metabolism in transgenic plants. Experience in biochemistry and/or chemistry and molecular biology advantageous. Send curriculum vitae and references to: **David Hildebrand, N-106 AGN, University of Kentucky, Lexington, KY 40546.** Email: [dhild@ukcc.uky.edu](mailto:dhild@ukcc.uky.edu).

### RESEARCH ASSOCIATE MOLECULAR BIOLOGY Full-time Position University of Virginia

Manage molecular biology laboratory providing services to faculty scientists. Oversee personnel, train faculty, perform advanced services, and develop techniques. B.S. with experience or M.S. Salary range: \$22,426 to \$34,240. Send résumé to: **Center for Research in Reproduction, Medical Center Box 391, University of Virginia, Charlottesville, VA 22908.** Email: [reprod@virginia.edu](mailto:reprod@virginia.edu).

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIPS COMPLEX SYSTEMS Studies at the Santa Fe Institute

The Santa Fe Institute (SFI) expects to have an opening for one or more postdoctoral fellows beginning in September 1996. The Institute's multidisciplinary research program is devoted to the study of complex systems, especially complex adaptive systems. For more information about SFI's Postdoctoral Fellowship see <http://www.santafe.edu/sfi/visitor/postdoc-ad.html>.

All application materials must be received by February 15, 1996. Decisions will be made by April 1996. Applicants should submit a curriculum vitae, list of publications, statement of research interests, and three letters of recommendation. Incomplete applications will not be considered. Send complete application packages only, preferably hard copy, to: **Postdoctoral Committee, Santa Fe Institute, 1399 Hyde Park Road, Santa Fe, NM 87501 U.S.A.** Include your Email address and/or FAX number. *SFI is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### POSTDOCTORAL POSITION Genome Sequencing Technology

Designing and developing automated capillary fluorescent DNA sequencing systems based on novel fluidic technology. Candidates with backgrounds in analytical chemistry, engineering, molecular biology, micromachining, or instrumentation will be considered. Submit curriculum vitae, a short statement of research accomplishments, and at least two letters of recommendation to: **Dr. Harold Swerdlow, Department of Human Genetics, 2100 EIHG, University of Utah, Salt Lake City, UT 84112.** FAX: 801-581-5163. More information: <http://www.genetics.utah.edu/swerdlow>.

*University of Utah is an Equal Employment Opportunity/Affirmative Action Employer and encourages applicants from men, women, and minorities.*

**POSTDOCTORAL POSITION** available to participate in two NIH-funded multidisciplinary research projects: gene regulation and the physiological role of brain neurokinin receptors and the regulation of neurotransmitter transporter gene expression and function. Send curriculum vitae and three letters of reference to: **Dr. Michael J. Bannon, Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, 540 East Canfield, 2309 Scott Hall, Detroit, MI 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

Michigan (Wayne State/Ann Arbor area)—**POSTDOCTORAL** opening in receptor protein kinase signaling to dissect insulin, IGF-1, EGF (see *Nature*, 324:68, 1986; *Science*, 236:197, 1987; *PNAS*, 85:1477, 1988; *EMBO J.* 8:2943, 1989; *J. Virol.*, 68:411, 1994) or PKC action (see *JBC*, 268:3456, 1993; *MCB*, 13:4728, 1993; *J. Biochem.* 115:1000, 1994; *Mol. Carcinogen*, 12:42 and 166, 1995) by biochemistry and the yeast two-hybrid system. Contact: **Heimo Riedel, Ph.D., Co-Section Head, Harvard Medical School/Joslin Diabetes Center, 1 Joslin Place, Boston, MA 02215-5397.** Telephone: 617-732-2691/3; FAX: 617-732-2589.

### POSTDOCTORAL OXYGEN TOXICITY

Training or experience in biochemistry, microbial physiology, analytical chemistry, and/or free radicals and desire to do enzyme isolation and kinetics *in vivo* and *in vitro* for brain kynurenine pathway with applications for hyperbaric oxygen induced convulsions and degenerative brain disorders in a five-year team effort to begin after January 1, 1996. Send résumé to: **Olen R. Brown, DCRC, University of Missouri, Columbia, MO 65211.** Email: [VETORB@UMCVMB.MISSOURI.EDU](mailto:VETORB@UMCVMB.MISSOURI.EDU).

*Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITIONS

Available immediately to study peptide/protein engineering for novel applications. Requires Ph.D. in chemistry or biochemistry with experience in peptides and proteins. Please send letter, current curriculum vitae, and three letters of reference to: **Dr. James Tam, Department of Microbiology and Immunology, A5119 MCN, Vanderbilt University, Nashville, TN 37232-2363.** *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**POSTDOCTORAL and PREDOCTORAL POSITIONS** in Neural Plasticity and the Neurobiology of Learning and Memory. The Department of Neurobiology and Anatomy at the University of Texas-Houston Medical School is seeking candidates for training positions in Neural Plasticity and the Neurobiology of Learning and Memory. The fields of investigations supported by a training grant from the NINDS include defining the neural structures responsible for simple behaviors and learning and memory, in vertebrates and invertebrates, mechanisms of motor cortex reorganization following acquisition of new motor skills and following cortical injury, plasticity in the primate visual cortex and in the fish retina, physiological, biochemical, molecular and computer modeling of memory storage mechanisms in vertebrates and several species of invertebrates, protein phosphorylation mechanisms in the modulation of synaptic efficacy, protein phosphorylation mechanisms in plasticity of neurotransmitter biosynthesis, molecular biology of long-term potentiation, and the role of gene induction and new protein synthesis in long-term memory mechanisms and neurotrauma.

Applicants should send a curriculum vitae, the names of three references, and a statement of their research interests to: **J. C. Waymire, Ph.D., Program Director, Training Program in Neural Plasticity, Department of Neurobiology and Anatomy, University of Texas-Houston Medical School, Houston, TX 77030.** *Minorities and women are encouraged to apply.*

**POSTDOCTORAL POSITION** in molecular virology/biochemistry available immediately to work on translation control mechanisms in picornavirus-infected cells. One goal of the project will be molecular cloning of a cellular protease that controls translation rates. Experience in protein purification and cloning techniques will be an asset. Must have a Ph.D. and relevant molecular or biochemical experience. Send curriculum vitae and names of three references to: **Dr. Richard E. Lloyd, Department of Microbiology and Immunology, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190.** FAX: 405-271-3117. *An Equal Opportunity Employer.*

### MOLECULAR NEUROBIOLOGY

**POSTDOCTORAL POSITION** available to study role of SRF-related MEF2 transcription factors in brain development. Experience in molecular biology or neuroanatomy required. Please send curriculum vitae and three letters of recommendation to: **Dr. Dana Leifer, LCI 7, Department of Neurology, Yale University School of Medicine, P.O. Box 208018, New Haven, CT 06520.** *Equal Opportunity/Affirmative Action Employer.*

### TEACHING POSITIONS

Physiology, Anatomy, Microbiology, Pathology, Psychology, and Biochemistry

Available at American University of the Caribbean School of Medicine. These positions are located at St. Maarten in the Caribbean. Applicants must have a Ph.D. or M.D. degree and be devoted to teaching medical students. American curriculum taught in English. Send résumé to: **MEIO-S, 901 Ponce de Leon Boulevard, Number 201, Coral Gables, FL 33134.** Telephone: 305-446-0600.

Fellowships for **POSTDOCTORAL TRAINING** in neural development, plasticity, and regeneration at the Ohio State University. Systems, cellular, and molecular approaches are available for trainees supported by an NINDS training grant. Faculty include **M. Beattie, G. Bishop, J. Boulant, R. Boyd, J. Bresnahan, J. Bruno, R. Burry, H. Cooke, M. Hadjiconstantinou-Neff, L. Horrocks, J. King, J. Lucas, G. Martin, J. Masters, N. Neff, R. Nordlander, J. Oberdick, R. Rogers, A. Rotter, B. Stokes, R. Tassava, J. Wood, and A. Yates.** Fellows supported by the training grant must be U.S. citizens or permanent residents.

Applications, including curriculum vitae, statement of research interests, and three letters of recommendation, should be sent to: **Drs. M. S. Beattie and G. F. Martin, at the Department of Cell Biology, Neurobiology and Anatomy, The Ohio State University, 333 West 10th Avenue, Columbus, OH 43210.** Potential applicants are encouraged to contact the program directors and prospective faculty sponsors for detailed information. Telephone: **Dr. Beattie 614-292-1781; Dr. Martin 614-292-1667.** *The Ohio State University is an Affirmative Action/Equal Opportunity Employer and encourages women and minorities to apply.*



## HEMATOPOIETIC SIGNAL TRANSDUCTION

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, has a challenging opportunity within the Department of Molecular Virology and Host Defense whose activities encompass basic and applied research in molecular virology, immunity to infectious diseases, and hematoregulatory cytokine biology and signaling mechanisms.

The successful candidate will direct research efforts aimed at understanding and exploiting hematopoietic cell signaling for drug discovery. The candidate will have responsibility for establishing new research initiatives, and for contributing to ongoing efforts in the area of hematopoietic cell signaling. A Ph.D. or equivalent, and 5-10 years' postdoctoral experience investigating the biochemical and molecular basis for growth factor dependent signal transduction is required. The candidate will work in collaboration with multidisciplinary research teams investigating specific molecular targets with the overall goal of discovering modulators of growth, differentiation and/or apoptosis in hematopoietic cells. The candidate should have excellent written and oral communication skills, a strong publication record, and experience directing Ph.D. scientists. Previous research experience in a pharmaceutical or biotechnology setting is desired, but is not required.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation and benefits package, including relocation, and a stimulating work environment in which to grow and excel. For confidential consideration, please send resume with salary history to: SmithKline Beecham Pharmaceuticals, Job Code H-HSTSD, P.O. Box 2645, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



Challenging the natural limits.

## THE WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH AND THE DEPARTMENT OF BIOLOGY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY TENURE  
TRACK FACULTY POSITIONS IN DEVELOPMENTAL GENETICS,  
MAMMALIAN DEVELOPMENT, AND STRUCTURAL BIOLOGY



The Whitehead Institute for Biomedical Research is looking for candidates for tenure track positions at the level of Assistant Professor in the fields of Developmental Genetics, Mammalian Development, and Structural Biology. Successful candidates will be expected to conduct an active research program and to participate in the Department's teaching program.

Applicants for the Developmental Genetics position should have significant research accomplishments using genetic approaches to elucidate developmental processes in a multicellular organism. We are also interested in candidates pursuing problems in mammalian development, including mechanisms of embryonic induction, cell fate, and cell migration. Applicants for the Structural Biology position should be accomplished in the use of X-ray crystallographic approaches to study problems in structural biology.

Please designate the search to which you are applying, send a curriculum vitae, a summary of your proposed research program, and the names of at least three scientists who can provide an evaluation of accomplishments and future potential to: Search Committees, Room W1667, Whitehead Institute for Biomedical Research, Nine Cambridge Center, Cambridge, MA 02142. An Equal Opportunity/Affirmative Action Employer.

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

### HIGH-THROUGHPUT SCREENING

This position requires a Ph.D. in Pharmacology or Medicinal Chemistry with at least 3 years of experience in drug screening and management of high-throughput screening data. Experience with relational databases and robotic systems is preferred. The focus is the identification of novel lead molecules based on high-throughput functional screening of compounds against recombinant brain receptors and/or ion channels. An ability to interact with various departments in order to develop new assays and pursue leads identified in the screening program together with drug screening experience in an industrial setting, is essential.

### NEUROPHARMACOLOGY

We are seeking a Ph.D. to develop models for stroke and epilepsy and assess compounds in these animal models. The ideal candidate will have a Ph.D. and 2+ years working with various stroke models, including the MCAO model in the rat. A general behavioral background is advantageous.

### MEDICINAL CHEMISTRY

A Ph.D. degree in Medicinal, Bioorganic, or Synthetic Chemistry is essential with 3-5 years postdoctoral experience in a medicinal chemistry environment, preferably in an industrial setting. The ideal candidate will have a successful track record in medicinal chemistry with a good understanding of modern approaches to drug discovery. In addition to strong synthetic organic chemistry skills, extensive experience with molecular modeling in drug design will be extremely useful.

### ASSISTANT/ASSOCIATE SCIENTISTS

We are also seeking BS/MS-level candidates for the following 3 research roles:

One position requires experience in behavioral pharmacology with emphasis on cognition, conditioning, operant behavior and stereotaxic brain surgery. A strong background in neuroanatomy, immunocytochemistry, and statistical analysis is desirable.

Another position requires 3-5 years of experience in neurotransmitter release, *in vivo* microdialysis, stereotaxic brain surgery, histology, and cell culture.

The third position requires a degree in Synthetic Organic Chemistry plus 0-5 years experience. The ability to work on small to medium scale multi-step synthesis, a good knowledge of compound separation and purification, as well as structure characterization, are required.

Located on San Diego's beautiful La Jolla coastline, SIBIA offers not only a challenging environment in an aesthetically pleasing setting, but also a competitive salary and benefits package. Send your C.V. with the names of 3 references to: Lynn Alba, SIBIA, 505 Coast Blvd., South, Suite 300, La Jolla, CA 92037, fax (619) 452-9279. EOE.

SIBIA

## POSITIONS OPEN

### MOLECULAR TOXICOLOGY UNIVERSITY OF WISCONSIN-MADISON

**POSTDOCTORAL POSITIONS** in molecular, cellular and biochemical toxicology funded by an NIEHS training grant.

Topic areas include: regulation of gene expression (toxicant metabolizing enzymes, oncogenes, DNA repair enzymes); cellular effects mediated by the Ah-receptor; toxicant activation; toxicity in developing organisms; mechanisms of carcinogenesis; action of toxicants on liver, kidney, gonadal, nerve, and immune cells.

Time will be allocated for training in Toxicology, and Molecular and Cellular Biology as appropriate. Collaborative projects involving more than one laboratory are encouraged.

*Applicants must be U.S. citizens or permanent residents and should send a curriculum vitae, three references (addresses and telephone numbers), and a letter stating research interests to: Dr. Colin R. Jefcoate, Director, Environmental Toxicology Center, B157 Steenbock Library, 550 Babcock Drive, Madison, WI 53706. Telephone: 608-263-4580. An Equal Opportunity Employer.*

### RNA CELL BIOLOGY POSTDOCTORAL POSITION

Candidates with experience in microinjection of mammalian cells are sought for a project on intracellular traffic and localization of RNA. Send curriculum vitae and two letters of recommendation to: Dr. Thoru Pederson, c/o Human Resources Office, Worcester Foundation for Biomedical Research, Shrewsbury, MA 01545. *Affirmative Action/Equal Opportunity Employer.*

### SOMATOSENSORY PHYSIOLOGIST

A **POSTDOCTORAL** position is available to study somatosensory function after spinal cord injury. Studies will include an evaluation of changes in functional properties of spinal and supraspinal neurons after injury. The research is part of a multidisciplinary effort to develop new strategies to study the functional changes that occur in spinal neurons after spinal injury. Prior experience with extracellular and evoked potential recording techniques in the rat spinal cord is desired. Send curriculum vitae and three letters of reference to: Dr. Robert Yezierski, The Miami Project to Cure Paralysis, 1600 N.W. 10th Avenue, R-48, Miami, FL 33136. *Equal Opportunity Employer/Affirmative Action. Drug and Smoke Free Workplace.*

**POSTDOCTORAL RESEARCH ASSOCIATE** positions available to study (1) modulation of ion channels and hormone secretion. Simultaneous  $Ca^{2+}$  current, membrane capacitance, and microfluorimetric [ $Ca^{2+}$ ]<sub>i</sub> recordings are used to investigate neuropeptide and second messenger control of secretion by single pituitary cells; or (2) regulation of ion channel expression and assembly in cardiac, pituitary, and neural cells. Experience with patch clamping (1) or molecular biology (2) is required. Send curriculum vitae and three names for references to: Edwin Levitan, Ph.D., E1355 Biomedical Science Tower, Department of Pharmacology, University of Pittsburgh, Pittsburgh, PA 15261. *The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** in cellular/molecular neurobiology available for individual interested in using state of the art electrophysiological and molecular biological techniques to study the roles of excitatory amino acids and second messenger/protein kinase systems in modulation of synaptic transmission and neuronal function in mammalian brain. A strong background in cellular and/or molecular neurobiology is preferred. Send curriculum vitae, three references, and statement of research interests to: Dr. P. Jeffrey Conn, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to carry out the sequencing, analysis, and expression of genes relevant to solvent production and strain degeneration in saccharolytic clostridia. Degeneration is associated with the initiation of sporulation and solventogenesis. Experience in molecular biology is required, and experience in cultivation of anaerobic bacteria would be highly desirable. Please submit a curriculum vitae and the names of three references to: Dr. Eva Kashket, Boston University School of Medicine, 80 East Concord Street, Room L504, Boston, MA 02118-2394. FAX: 617-638-4286; Email: ekashket@acs.bu.edu.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH POSITIONS

Available immediately for Ph.D., M.D. in a strong interdisciplinary group of scientists within the East Carolina University School of Medicine Center for Alcohol and Drug Abuse Studies. Research experience desired in areas of psychopharmacology and neurochemistry with background helpful in CNS techniques including microinjection, cerebral dialysis, push-pull perfusion, and chromatographic separation of serotonin and catecholamine neurotransmitters. State of the art procedures including peptide synthesis, radioligand receptor analysis, and antisense technology are available. Send curriculum vitae and three letters of recommendation to: Professor R. D. Myers, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27858. Federal law requires proper documentation of identity and employability at the time of employment. *Affirmative Action/Equal Opportunity Employer.*

### TWO POSTDOCTORAL POSITIONS Strong Background in Cellular and Molecular Biology Required

1) To study animal models of neurological disease with a focus on the development of therapeutic strategies for treating these models. 2) To study transgenic and gene-targeting strategies to generate animal models of neurodegenerative disease. Send letter and curriculum vitae to:

Donald L. Price, M.D.

The Johns Hopkins University School of Medicine  
Neuropathology Laboratory  
720 Rutland Avenue, 558 Ross Research Building  
Baltimore, MD 21205-2196

Email: ADRC@WELCHLINK.WELCH.JHU.EDU  
(No phone calls, please)

*Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL FELLOW.** Applications are invited for an immediate postdoctoral fellowship in programmed cell death. Candidates must have a Ph.D. or M.D. with laboratory experience in molecular biology and protein analysis. Experience in transgenic mouse technology would be helpful. Studies will examine the genetic regulation of apoptosis in normal and malignant tissue. Submit curriculum vitae and the names of three references to: Mike Clarke, M.D., University of Michigan Medical School, MSRB II, Room C570A, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0668. FAX: 313-763-4226. *An Affirmative Action/Equal Opportunity Employer.*

### SIGNAL TRANSDUCTION

**POSTDOCTORAL POSITION.** Available immediately to study cross-talk between G proteins, G protein-coupled receptors, and kinase cascades. Studies use a multidisciplinary approach including interaction cloning, protein purification, and measurement of intracellular ion fluxes. Background in either transmembrane signaling or the regulation of ion exchangers is preferred. Send curriculum vitae, description of research interests, and three letters of reference to: Diane L. Barber, Ph.D., HSW604, University of California, San Francisco, CA 94143.

**POSTDOCTORAL ASSISTANT/ASSOCIATE** is sought for designing and constructing gene knockouts for analysis in mouse models. At least two years of experience in PCR, Southern blotting, sequencing, screening libraries, and making constructs is highly desirable, but candidates with excellent training in biochemistry and a strong desire to train in molecular methods will also be considered. Contact: Dr. Fred Schroeder, Department of Physiology and Pharmacology, Texas A&M University, TVMC, College Station, TX 77843-4466. *Affirmative Action/Equal Opportunity Employer.*

### INSTITUTE OF MOLECULAR BIOLOGY ACADEMIA SINICA, TAIWAN, ROC

**POSTDOCTORAL POSITIONS** available to work on gene regulation of steroid synthesis, or growth and differentiation of sex gland development. Previous experience in molecular biology, cell biology, or endocrinology will be helpful. Please send curriculum vitae and list of references to: Dr. Bon-chu Chung, Institute of Molecular Biology, Academia Sinica, Nankang, Taipei, Taiwan. FAX: 886-2-782-6085; Email: mbchung@gate.sinica.edu.tw.

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS CELLULAR NEUROPHYSIOLOGY

The Neurosciences Unit at the Loeb Research Institute, Ottawa Civic Hospital and University of Ottawa, has one to three year openings for postdoctorate positions in cellular electrophysiology, to study intrinsic and synaptic properties, transmitter-receptor interactions and signal transduction in CNS neurons regulating pituitary secretion and spinal sympathetic outflow. Requires M.D. or Ph.D. degree, and experience with in-vitro preparations, current, and patch clamp recording techniques. You will be joining a Neurosciences Program comprised of eight PIs with expertise in molecular and cellular neurobiology applied to exocytosis, membrane trafficking, signal transduction, ion channel function, post-ischemic neuronal function and survival. Salary range \$28,650 to \$34,500 (Can). Send or FAX: 613-761-5360 curriculum vitae, a short statement of interests, and names of three references to: Dr. Leo Renaud, Director, Neurology/Neurosciences, Ottawa Civic Hospital, 1053 Carling Avenue, Ottawa, Ontario K1Y 4E9 Canada.

**POSTDOCTORAL POSITION.** Available immediately to participate in an NIH-supported program investigating the regulation of gene expression during the transcript elongation and truncation phases of mRNA synthesis (JBC 268: 12874; JBC 270: 2290). Candidates should have earned a Ph.D. in the biological sciences and have significant expertise in molecular biology techniques. Some experience with protein purification and a basic understanding of transcriptional regulation is preferred. Send curriculum vitae, including brief description of research interests and experience, and the names and telephone numbers of three references to: Dr. Michael G. Izban, Sealy Center for Molecular Science and Department of Reproductive Sciences, University of Texas Medical Branch, Galveston, TX 77555-1062. Email: Mizban@BEACH.UTMB.EDU. FAX: 409-747-0475. *University of Texas Medical Branch is an Equal Opportunity/Affirmative Action University. Minorities/Female/Disabled/Veteran.*

### RETINAL NEUROBIOLOGY

A **POSTDOCTORAL POSITION** is available to study synaptic plasticity in the vertebrate retina. The project employs electrophysiological (intracellular and patch clamp recording), pharmacological, and anatomical techniques to investigate a circadian rhythm in neuronal light responses in fish and rabbit retinas. Experience in electrophysiology is desirable. Please send curriculum vitae, a description of research experience, and the names and addresses of three references to: Dr. Stuart Mangel, Neurobiology Research Center, University of Alabama School of Medicine, CIRC 425, 1719 Sixth Avenue South, Birmingham, AL 35294-0021 U.S.A. Email: mangel@nrc.uab.edu. *The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in molecular neuroscience—Johns Hopkins University (JHU)—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. Three years of funding limited to U.S. citizens or permanent residents. Please send curriculum vitae to: Drs. Valina and Ted Dawson, Department of Neurology, JHU, 600 North Wolfe Street, Path 210, Baltimore, MD 21287. *Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION Molecular Genetics of Lung Injury and Repair

An immediate opening is available to study the molecular genetics of lung airway injury and repair. Specific areas of study include the investigation of mechanisms involved in protection, repopulation, and cytodifferentiation of pulmonary epithelial cells in response to injurious agents. A strong background in cellular and molecular biology is desirable. Send curriculum vitae, names of three references, and letter indicating skills and interests to: Dr. B. R. Stripp, Department of Environmental Medicine, University of Rochester, 575 Elmwood Avenue, Rochester, NY 14642. *The University of Rochester is an Equal Opportunity Employer.*



**G**UILFORD PHARMACEUTICALS INC., is a growing Baltimore, Maryland-based biopharmaceutical company with a mission to discover, develop and commercialize novel products for the diagnosis, treatment and prevention of neurological diseases. Guilford is a world leader in neuroscience research and is developing important products for brain cancer, Parkinson's Disease, and ischemia. Guilford is currently expanding its research activities in nerve regrowth, neurodegeneration, and cocaine addiction, and seeks scientists in the following areas:

### NEUROBIOLOGY

Guilford is seeking scientists with specific expertise in animal models of neurodegenerative diseases to establish an *in vivo* research laboratory aimed at developing novel therapeutics for neurodegenerative disorders. Ph.D. or M.D./Ph.D. degree in Neuroscience or related field and relevant post-doctoral experience are required. We are also seeking individuals with a B.S./M.S. degree in Biological Sciences and at least 2 years' relevant experience in biochemistry, immunohistochemistry, receptor pharmacology, cell culture, small animal surgery, *in vivo* microdialysis and/or behavioral pharmacology.

### BEHAVIORAL PHARMACOLOGY

Guilford is seeking a scientist with a strong background in behavioral pharmacology, preferably with experience in animal models of drug addiction, to establish an *in vivo* research program aimed at developing novel therapeutics for cocaine addiction. Ph.D. or M.D./Ph.D. degree in Behavioral Pharmacology or related field, and relevant post-doctoral experience are required. Familiarity with microdialysis techniques is desirable.

### MEDICINAL CHEMISTRY

Guilford is seeking a candidate for a Ph.D. level position who possesses a doctorate in Synthetic Organic Chemistry, preferably natural products total synthesis, as well as relevant post-doctoral experience in the design, synthesis and characterization of biologically-active structures. We are also seeking B.S. or M.S. candidates with a degree in Chemistry and at least 2 years' relevant experience. A thorough proficiency in all modern methods of synthetic organic chemistry and structural characterization (IR, NMR, etc.) is essential.

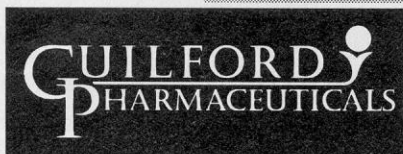
### PHARMACOKINETICS

Guilford is seeking a Ph.D. with a strong background in pharmacokinetics to establish a laboratory for the study of absorption, distribution, metabolism and excretion of novel small molecule CNS active compounds, and novel polymer-based drug delivery systems. This position requires 3-5 years' relevant industrial experience. Knowledge of pharmacodynamics is desirable. We are also seeking a B.S. or M.S. candidate with at least 2 years' relevant industrial experience in pharmacokinetics.

Candidates for all positions should possess a strong desire to work in an intensively multidisciplinary team environment, in which insights from neurobiology and structural biology are applied to novel approaches for treating neurodegenerative disorders. A strong record of demonstrated research accomplishments and well-developed communication skills are essential.

We offer highly competitive salaries, benefits and incentive plan, as well as relocation assistance. You are invited to submit your resume and salary history, indicating your area of interest, to:

Guilford Pharmaceuticals Inc., ( area of interest ),  
6611 Tributary Street, Baltimore, MD 21224. EOE.



# Endocrinology

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

## ASSOCIATE DIRECTOR

This individual will help lead a program in generating new therapeutic molecular targets in the areas of obesity and diabetes. Requirements include expertise in the above mentioned areas, a history of published research, and the achievement of academic tenure or a record of progressively responsible management experience in the pharmaceutical industry. The preferred candidate will have experience directing research in receptor pharmacology and molecular biology. (Job Code OXP-SC-NEUR)

## RESEARCH SCIENTIST

This individual will participate in programs to develop new therapeutic approaches to obesity and diabetes. Requirements include strong *in vivo* expertise with 4+ years' postdoctoral academic or industrial experience focused on *in vivo* hormonal effects on carbohydrate, lipid or protein metabolism. The preferred candidate will have a history of published research using obesity or diabetes disease models. (Job Code: OXP-SC-2964)

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

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

EEO/AA Employer M/F/D/V



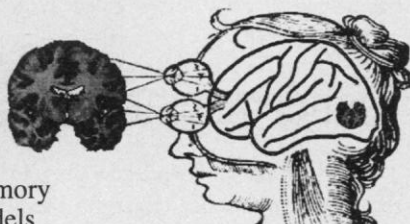
## 2nd International Conference on Functional Mapping of the Human Brain

Sheraton Boston Hotel & Towers, Boston, MA  
June 17—21

Call For Abstracts: Received by January 31, 1996

### Session Topics

- Sensory System
- Motor System
- Language
- Cognition
- Brain Disorders
- Learning & Memory
- Methods & Models
- Aging & Development



For Information contact:

Organization of Human Brain Mapping  
220 Longwood Ave.  
Goldenson B-231  
Boston, MA 02115 USA

FAX: (617) 432-0057  
email: hbm96@nmr.mgh.harvard.edu  
www: <http://www.nmr.mgh.harvard.edu/HBM96/Boston.html>

## FACULTY POSITIONS IN SYSTEMS NEUROSCIENCE

WASHINGTON UNIVERSITY  
Department of Anatomy and Neurobiology

Tenure track faculty positions in the area of systems neuroscience are available in the Department of Anatomy & Neurobiology at Washington University School of Medicine. We seek individuals whose research focusses on non-human primates and who are taking innovative approaches to important questions in systems neuroscience, including sensory processing, motor control, or cognitive function. We are particularly interested in applicants whose proposed research program includes a strong computational aspect. Excellent laboratory space will be available in a newly completed state-of-the-art primate facility. Our emphasis is on appointments at the Assistant Professor level, but appointments at a more senior level will also be considered.

The Department of Anatomy & Neurobiology includes 20 faculty who are actively involved in neurobiological research, and it is part of a much larger interdepartmental neuroscience program. The new primate facility is in close proximity to a new Imaging Center containing superb PET and MRI research facilities. Both the department and the neuroscience program offer numerous opportunities for scientific interactions and collaborations.

Applicants should send a curriculum vitae, synopsis of research interests, and names (incl. addresses, phone/fax/email) of three references to: Dr. David Van Essen, Head, Department of Anatomy and Neurobiology, Box 8108, Washington University School of Medicine, 660 S. Euclid Ave., St. Louis, MO 63110, USA. Applications should be received by December 20, 1995.

*Washington University is an  
Affirmative Action/Equal Opportunity Employer. Applications  
from minorities and women are encouraged.*

### Director

Physical Science Laboratory  
of New Mexico State University

Physical Science Laboratory (PSL) of New Mexico State University (NMSU) is an R&D organization contracting to government and industry through its strong engineering, service, and science programs, several of which are world-class. Located at the base of the Rio Grande Research Corridor, PSL is strongly positioned with excellent capabilities and a substantial contract base in atmospheric sciences, electronic defense, engineering services, scientific, balloon research, and telemetry.

We invite applications and nominations for the position of Director for a laboratory of about 400 people and \$31 million annual contract funding. We seek an energetic, innovative leader who desires new challenges and can demonstrate the following qualifications:

- PhD in engineering or a physical science with the ability to obtain top secret security clearance.
- Ten years of directly relevant experience, including five years experience of "hands-on" manager of RD&E engineering projects.
- Broad general knowledge of science and technology relevant to Laboratory operations.
- Demonstrated success for developing programs and attaining contracts to sustain Laboratory growth.
- Excellent leadership abilities and communication skills.

The ideal candidate will have demonstrated technical and management leadership and initiative in successful performance under relevant government or industrial contract requirements.

Applicants should submit a cover letter, resume, and the names, addresses, and telephone numbers of five references. The search committee will begin consideration of applications after November 1, 1995, and will continue until a successful candidate is selected.

Offer of employment is contingent upon verification of the candidate's eligibility for employment in the United States.

Applications and nomination should be submitted to:

James L. McDonough  
Chair, PSL Director Search Committee  
Dept. 3AA, Box 30001  
New Mexico State University  
Las Cruces, New Mexico 88003-8001

*NMSU is an EEO/AA employer*

## PESTICIDE REGISTRATION MANAGER

### Do you have:

- a Bachelor's Degree in Marine Biology/Industrial Toxicology (or related science)?
- a minimum of ten (10) years experience in pesticide registrations for marine antifoulants or pesticides with Federal and State E.P.A. agencies?
- ability to prepare detailed technical reports?

If you can say YES to all these questions and desire a position with a worldwide leader in the commercial marine and pleasure craft coatings industry, please send resume to Jack Hickey, Technical Director, Interlux Division of Courtaulds Coatings, Inc.; 2270 Morris Avenue; Union, NJ 07083 (Fax: 908-964-2250)

*An Equal Opportunity Employer M/F/D/V*



## POSTDOCTORAL POSITION

CELL CYCLE  
REGULATION OF  
CELL MEMBRANE  
SYNTHESIS

Investigation of modification of the rate controlling enzyme in the pathway of phospholipid formation by regulatory kinases using contemporary techniques of molecular and cell biology. Study of phospholipase activation/signalling by growth factors and its role in cell cycle regulation of membrane synthesis and trafficking (J. Biol. Chem. 269:3858, 1994). Position available immediately and recent PhD required. Send curriculum vitae with names of three references to: **Dr. Suzane Jackowski, Department of Biochemistry, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38105. An Affirmative Action/Equal Opportunity Employer.**



## POSTDOCTORAL FELLOW CHEMICAL DISPOSITION, ANALYTICAL CHEMISTRY, PHARMACOKINETICS

CIIT is an independent, not-for-profit research organization. Our mission is to improve the scientific basis for understanding and assessing the potential adverse effects of chemicals, pharmaceuticals, and consumer products on human health.

We are currently seeking Postdoctoral Fellows to undertake research in chemical disposition and metabolism in adult and/or prenatal animals. Specific research areas include endocrine modulation (transplacental transfer of chemicals and their effects on sexual differentiation and on endocrine homeostasis in developing organisms) and toxicology of oxygenated fuel additives. The goal of the research is to assess doses of toxicants to target sites and to evaluate the potential for human health risks.

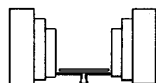
The successful candidates will possess a doctoral-level degree in Chemistry, Biochemistry, or Pharmacology, or in a related discipline with expertise in analytical chemistry, biochemistry, pharmacology, or toxicology. Experience in endocrinology, developmental toxicology, or pharmacokinetics is preferred but not required.

We are also seeking a postdoctoral fellow to study pharmacokinetics, metabolism and distribution of an oxygenated fuel additive.

The successful candidate will be involved in a research program on the toxicity of oxygenated fuel additives. The position requires a recent Ph.D in Chemistry, Biochemistry, Pharmacology, Toxicology or related disciplines. Experience with pharmacokinetics, in vivo animal studies, and analytical techniques (e.g. HPLC, NMR, GC, GC/MS) is desirable.

CIIT offers competitive salaries, attractive benefits and a stimulating work environment, including co-workers with diverse backgrounds. CIIT is located in Research Triangle Park, NC which offers many cultural and recreational activities as well as access to three major research universities. Interested candidates should send their CV to: **Human Resources Office, CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY, P.O. Box 12137, Research Triangle Park, NC 27709. Please refer to the "Postdoctoral Fellow-Chemical Disposition" position. Responses received after November 15, 1995 will not be considered.** CIIT is an Equal Opportunity Employer M/F/D/V.

# CIIT



## THE SALK INSTITUTE

### Postdoctoral Position in Organization and Development of Visual Cortex

A position is available to study neuronal circuitry in visual cortex. Studies focus on both developing and mature circuitry to address how specific circuits contribute to visual function and the mechanisms responsible for their development. A variety of *in vivo* and *in vitro* methods are used, including scanning laser photostimulation to assess the sources of local input to individual neurons (PNAS 90, 7661-5; Science 265, 255-8; Current Biology 4, 1010-2). A doctoral-level degree is required and a strong background in neurobiology is preferred.

Applicants should send curriculum vitae, statement of research interests and experience, and names of three references to:

**Dr. Edward Callaway  
The Salk Institute  
10010 N. Torrey Pines Road  
La Jolla, CA 92037**

THE SALK INSTITUTE IS AN  
AFFIRMATIVE ACTION EMPLOYER.

## SENIOR ACCELERATOR PHYSICIST

Oak Ridge National Laboratory (ORNL) is seeking a senior scientist to assemble a group to design the accelerator systems for a high-powered, pulsed, spallation neutron source. Applicants should have a PhD and/or extensive experience in designing accelerator systems (ion sources/linacs/fast cycling synchrotrons/accumulator rings), in beam optics and integration, and experience in managing a design group. The tasks include working with ORNL management to assemble an accelerator design team, to define the scope of the accelerator design, to interface with existing ORNL spallation source design efforts, and to work with other DOE laboratories, industry, and universities to achieve an integrated conceptual

design for a spallation neutron source. The position becomes available October 1, 1995.

ORNL, a multipurpose research facility managed by Lockheed Martin for the U.S. Department of Energy, offers a competitive compensation and benefits package, including relocation. For immediate consideration, submit a resume to: Search Committee, c/o B.R. Appleton, Associate Director for Advanced Materials, Physical, and Neutron Sciences, Dept. SCI-11, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6240.

ORNL is an equal opportunity employer committed to building and maintaining a diverse workforce.

# ornl

## MARINE BIOLOGICAL LABORATORY 1996 Summer Courses

**BIOLOGY OF PARASITISM: Modern Approaches** (June 13 - August 16). This course, for students, postdocs and faculty, focuses on the molecular basis of parasite function and the host/parasite interaction, with special emphasis on the most recent and exciting developments in this area. The course has four sections: cell biology, immunology, molecular biology, and biochemistry. Each section includes daily lectures from course faculty and outside speakers, and intensive laboratory experimentation. Limited to 16 students. Director: Stephen L. Hajduk, University of Alabama at Birmingham.

**EMBRYOLOGY: Cell Differentiation and Gene Expression in Early Development** (June 13 - July 27). An advanced level course intended for graduate students, postdoctoral fellows, and other research scientists who wish a current treatment of major issues in the experimental analysis of developmental biology of the embryo, and the diverse intellectual approaches now useful in this field. Limited to 24 students. Directors: Eric H. Davidson, California Institute of Technology; Michael Levine, University of California, San Diego; and David R. McClay, Duke University.

**MICROBIAL DIVERSITY:** (June 16 - August 1). An intensive laboratory and lecture course intended for graduate or postdoctoral students as well as established investigators who desire to become competent in microbiological techniques for isolation and working with a broad range of microbes. Microbial diversity will be described and analyzed in biochemical, physiological, and selected molecular biological terms. Limited to 20 students. Directors: Edward R. Leadbetter, University of Connecticut; and Abigail Salyers, University of Illinois.

**NEURAL SYSTEMS & BEHAVIOR:** (June 16 - August 9). Intended for graduate and postdoctoral students as well as established investigators. This course focuses on the neural basis and plasticity of behavior. Twenty students participate in intensive laboratories/lectures which combine state-of-the-art neurobiological techniques with behavioral analyses. Directors: Janis C. Weeks, University of Oregon; and Harold H. Zakon, University of Texas.

**NEUROBIOLOGY:** (June 16 - August 17). An intensive course in molecular and cellular neurobiology for doctoral and postdoctoral students and established investigators. Lectures will offer a systematic discussion of fundamental issues and research paradigms; work in the laboratories will address these issues using the full range of contemporary physiological, molecular, and structural techniques. Limited to 12 students. Directors: Gary Banker, University of Virginia; and Daniel V. Madison, Stanford University.

**PHYSIOLOGY: Cellular and Molecular Biology** (June 16 - July 27). For a class of 36 pre- and post-doctoral students who desire training in state-of-the-art methods and research strategies in genetics, physiology, and cellular and molecular biology. Pre-doctoral students and physician scientists beginning their laboratory training are particularly encouraged to apply. Interested students may apply for 2-4 weeks of postcourse research starting July 29. Director: Mark S. Mooseker, Yale University.

**APPLICATION DEADLINE:** March 1, 1996

**TUITION:** \$3,500

**FINANCIAL AID:** Students who request financial aid generally receive substantial awards. Travel supplements are usually available for non-U.S. residents. Financial Aid requests are not a factor in admissions decisions.

For application forms, contact: **Admissions Coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543, (508) 289-7401; Internet: [admissions@mbi.edu](mailto:admissions@mbi.edu); World Wide Web: <http://www.mbl.edu>.**

The MBL is an Equal Opportunity/Affirmative Action Institution.



MARINE  
BIOLOGICAL  
LABORATORY

## UCLA NEUROSCIENCE

The University of California Los Angeles, as part of a major initiative in neuroscience, is seeking to fill three tenure-track positions, at the assistant professor level, in the UCLA College of Letters and Science. We invite applications from individuals doing research in the following areas:

- (1) **molecular cell biology:** molecular analysis of cellular processes such as synaptic transmission and neural integration;
- (2) **systems neurobiology:** studies of multineuronal networks, from small ensembles to circuitry underlying complex behavior; and
- (3) **behavioral neuroscience:** neural basis of learning. Outstanding applicants in other areas of behavioral neuroscience, especially visual or cognitive neuroscience, will be also be considered. This appointment will be made in the Department of Psychology.

All appointees will teach undergraduate and graduate courses in their broad and specialty areas of training and will participate in inter-departmental programs in neuroscience.

For all positions, submit a *curriculum vitae*, reprints, preprints, and a statement of research interests, plans and goals. Also arrange for three letters of recommendation to be sent to the appropriate search committee. Send applications and letters by December 31, to appropriate search committee. For positions (1) or (2) send application to Search Committee, Molecular Cell Biology or Systems Neurobiology, Brain Research Institute, UCLA, Box 951761, Los Angeles, CA 90095-1761; for position (3), send application to BNS Search Committee, Department of Psychology, Box 951563, Los Angeles, CA 90095-1563.

*The University of California is an Affirmative Action/Equal Opportunity Employer. Women and members of underrepresented minorities are encouraged to apply.*



## PHARMACOLOGICAL SCIENCES

### Postdoctoral Scientist

SmithKline Beecham, a worldwide leader in pharmaceutical research, has a challenging opportunity for a Postdoctoral Scientist to join our Department of Cardiovascular Pharmacology.

The selected individual will perform site directed mutagenesis on catecholamine receptors, and characterization of the pharmacology of these receptors via radioligand binding assay, in order to determine potential sites of agonist-receptor interaction. Duties also will include advising staff on RNA isolation and preparation of subtractive libraries. Communication of results via publications and presentations at scientific meetings is expected.

Qualified candidates will have a PhD in Pharmacology or Molecular Biology, plus experience in performing site directed mutagenesis and transient expression of mutant proteins. Experience with RNA isolation from native tissues is also required. Familiarity with adrenoceptor pharmacology and radioligand binding assays is desirable. Excellent oral and written communication skills are essential.

Our state-of-the-art research facility is located in suburban Philadelphia. We offer a competitive compensation/benefits package and a stimulating team environment. For confidential consideration, send your resume to: SmithKline Beecham Pharmaceuticals, Job Code H-PDPH, P.O. Box 2645, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



**SmithKline Beecham**  
Pharmaceuticals

Challenging the natural limits.

## MEETINGS

### Optical Imaging of Gene Expression and Signaling in Living Cells

March 15 - 17, 1996

Conference Chairman: **Steve Kay**, University of Virginia

#### Keynote Address:

**Roger Tsien**, University of California, San Diego  
"Imaging Proteins and Gene Expression in Living Cells:  
GFP, beta-Lactamase, and Beyond"

#### Advanced Imaging Technology and Reporter Measurement

**Masafumi Oshiro**, Hamamatsu Photonics USA  
**Ted Salmon**, University of North Carolina  
**Scott Fraser**, California Institute of Technology  
**Keith Wood**, Promega Corporation

#### Luciferase Applications

**Jeremy Tavare**, University of Bristol, U.K.  
**Stephen Frawley**, Medical University of South Carolina  
**Andrew Millar**, University of Warwick, U.K.  
**Lionel Jaffe**, Woods Hole Marine Biological Laboratory

#### Applications of Green Fluorescent Protein and its Derivatives

**Tulle Hazelrigg**, Columbia University  
**Jim Haseloff**, Medical Research Council, U.K.  
**Pamela Silver**, Harvard Medical School

Abstracts may be submitted for poster presentation. The abstract deadline is January 15, 1996. Registration fee, including all meals and accommodation: Students \$295, all others \$385

Primary Corporate Sponsor: Hamamatsu

### Cold Spring Harbor Laboratory

1 Bungtown Road, Cold Spring Harbor, NY 11724

email [meetings@chsl.org](mailto:meetings@chsl.org) fax: 516 - 367 - 8845

phone: 516 - 367 - 8346 w3 site <http://www.chsl.org/>

### California Institute of Technology Assistant Professor of Planetary Science

A tenure track faculty position is available for a planetary astronomer in the Division of Geological and Planetary Sciences. Initial appointment is for four years and expected to be at the assistant professor level. Completion of the Ph.D. is required. Observational experience in research involving the planets, planetary systems other than the Solar System, and associated instrumentation is highly desirable. The candidate is expected to be sufficiently experienced to use the optical, infrared and microwave observatories of Caltech, such as the Palomar and Keck telescopes, the Owens Valley Radio Observatory Millimeter Array and the Caltech Submillimeter telescope, as well as the instruments of the National Observatories. Interest and experience in observational, multi-element telescope arrays is also desirable since it is likely that high angular resolution observations are required for meaningful progress in these areas of research.

Please send resumes, including three letters of recommendation, to **Professor Duane O. Muhleman**, Chair of the Planetary Science Search Committee, Division of Geological and Planetary Sciences, 170-25, California Institute of Technology, Pasadena, CA 91125, ph. 818-395-6186.

*The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.*



### ATTENTION ALL MEDICAL AND GRADUATE STUDENTS

#### CALL FOR ABSTRACTS

The 22nd Annual **Eastern Student Research Forum** is a four day regional meeting held at the University of Miami School of Medicine in Miami, Florida. The Forum is intended to provide an opportunity for participants to present their original basic science or clinical research. Medical residents, medical, graduate, and M.D./Ph. D students from any medical or graduate school are eligible to submit an abstract. Many of the scientific sessions are integrated into the Grand Rounds of various clinical departments at the University of Miami. Outstanding presentations will be honored with cash awards, plaques and an invitation to the National Student Research Forum. A limited number of travel awards are available, based on merit and financial need. Deadline for submission is December 7, 1995.

For further information and an application, please write or call:

**Eastern Student Research Forum**  
**University of Miami School of Medicine**  
P.O. Box 016960 (M819)  
Miami, Florida 33101  
Phone (305) 243-3505  
Fax (305) 325-1692

Email [esrf@newssun.med.miami.edu](mailto:esrf@newssun.med.miami.edu)  
WWW <http://spider.med.miami.edu/esrf>

### A World of Opportunities At Pall Corporation

## Ph.D. SCIENTIST LECTURERS

Pall Corporation is the broadest based filtration and separations company in the world -- with current sales of over \$800 million. Our leadership position has enabled us to attract and retain world recognized experts to our ranks.

We seek an individual to provide technical support for our Biomedical Products delivering presentations and seminars to leading hospitals, medical education institutions and professional societies. You will work in conjunction with our Regional Managers throughout the country.

To qualify you will have 3-5 years experience and a Ph.D. in Physiology, Cell Biology, or Life Sciences. An interest or background in health care or medical research along with previous teaching experience is helpful. Extensive travel required.

**We also have 2 part time positions available.**

You will receive a competitive salary & participate in our comprehensive benefits program. Only resumes with salary history and department code will be considered. Reply to:

Human Resources Dept. 20315-451C



**PALL CORP.**

25 Harbor Park Drive  
Port Washington, NY 11050

Leadership  
in Filtration

An Equal Opportunity Employer

**SAN FRANCISCO STATE UNIVERSITY  
Cooperative Doctoral Programs in Biology and Chemistry**

**Complete:**

- MA in Cell & Molecular Biology, Microbiology, Marine, Ecology & Systematics, Physiology & Behavior, Or Conservation Biology
- MS in Biochemistry or Chemistry at SFSU and;

**Complete your Ph.D. in our Cooperative Doctoral Program with:**

- University of California, Davis - Nineteen Ph.D. Programs
- University of California, San Francisco - Thirteen Ph.D. Programs
- (Participants interested in entering Ph.D. programs at other Ph.D. granting institutions are encouraged and supported to do so)

**Fifty-two Predoctoral Fellowships During MA/MS studies at SFSU in:**

- Biology, Biochemistry and Chemistry

**Training support provided through:**

- National Institutes of Health (NIH) for groups underrepresented in science (Black, Hispanic, American Indian and Pacific Islander)

◊MA-MS/Ph.D. Bridge Program

◊Minority Biomedical Research Support (MBRS)

◊Minority International Research Training (MIRT)

(Research studies in Belize, Cameroon or Peru)

◊Approximately \$12,000/year for 27 MA/MS students

- U.S. Department of Education financial need based on fellowships:

◊Graduate Assistance in Areas of National Need (GAANN)

Representation of women and ethnic minorities in the sciences is a major area of concern addressed by this program

◊Approximately \$15,500/year for 25 MA/MS students

• Write: Professor Frank Bayliss  
Office of Minority Opportunities  
Department of Biology  
San Francisco State University  
San Francisco, CA 94132

• Call: Trish Anderson (415) 338-1305  
FAX (415) 338-0927

*San Francisco State University is an equal opportunity/affirmative action employer.*

**Graduate Fellowships  
Center for the Study of Evolution and the Origin of Life  
UCLA**

ORIGIN OF THE UNIVERSE...  
FORMATION OF THE EARTH...  
BEGINNINGS OF LIFE...  
EVOLUTION OF THE BIOSPHERE...  
ADVENT OF HOMOSAPIENS...

CSEOL invites applications for five graduate fellowships for 1996-97. *In addition to support provided* Fellows by UCLA departments, CSEOL will grant each Fellow a stipend of \$5,000 per year, *for each of the first two years of graduate study*, with no teaching or other duties. Stipends may be used for any purpose the Fellow deems appropriate -- travel, lodging, attendance at scientific meetings, purchase of books, computers, research equipment -- *for any purpose*, without restriction. Fellows are included in a select group of graduate students invited to interact with Center faculty in a weekly dinner/seminar/discussion series. Applicants should be planning to carry out doctoral research under the direction of a CSEOL faculty member in a subject area relating to **virtually any aspect of evolution -- of the cosmos, of the solar system, of Earth, of the environment, of life, of humans.** Areas of particular interest for 1996-97 include (1) planetary evolution and exobiology; (2) origin and early evolution of life; and (3) biochemical evolution and molecular phylogeny. Faculty are member of the **UCLA Departments of Anthropology, Astronomy, Atmospheric Sciences, Biology, Chemistry & Biochemistry, Computer Science, Earth & Space Sciences, Economics, Geography, History, Microbiology Philosophy, Psychology, and Sociology; the School of Medicine; the School of Public Health; the Institute of Geophysics and Planetary Physics; and the Molecular Biology Institute.** Fellowship applicants must apply (preferably, by 15 March 1996) both to an appropriate academic department and to CSEOL. For application forms and a list of CSEOL members, contact:

**CSEOL Fellows Committee  
Geology Building, Room 5687  
University of California, Los Angeles  
Los Angeles, CA 90095-1567  
Telephone: (310) 825-11700  
FAX: (310) 825-0097  
e-mail: SCHOFF@ess.ucla.edu**

**MOLECULAR BIOLOGISTS**

**Neurogen Corporation**, a rapidly growing biopharmaceutical company focusing on therapeutics for neuropsychiatric disorders is currently expanding it's staff in Molecular Biology.

**Neurogen** is currently seeking highly motivated individuals for the following positions:

**1) Postdoctoral Positions:** Areas of intended research include growth factors, signal transduction regulation, transcriptional regulation, and neurodegenerative diseases. Applicants should have a recent Ph.D. and extensive research training in molecular biology covering areas of gene isolation and expression. A background in neuroscience is an advantage, but not essential. The appointment is for 2 years with the possibility of renewal for a third year. Neurogen Corporation provides a highly interactive, close-knit research environment capable of providing post-doctoral trainees an in-depth perspective on the development of pharmaceuticals while maintaining cutting-edge research in molecular biology.

**2) Research Associates:** Candidates should have either a BS or MS in the biological sciences with 4-5 years experience in a molecular biology laboratory. Hands-on experience with recombinant DNA techniques including gene isolation, cloning, PCR, and tissue culture essential.

**Neurogen** is located in Branford Connecticut, close to New Haven. We offer a stimulating intellectual environment involved in cutting edge scientific discovery for new therapeutic drugs for central nervous system disorders. Neurogen has a comprehensive compensation program consisting of competitive salary, equity participation, 401K plan, health and medical programs, as well as relocation assistance.

Interested candidates should send resumes with cover letter indicating which position you are applying for to: **Vivienne Formichella, Personnel Department, Neurogen Corporation, 35 Northeast Industrial Road, Branford, CT 06405.**

**Neurogen Corporation**



**POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE  
IN MOLECULAR BASIS OF DISEASE**

The Department of Pathology, Division of Molecular and Cellular Pathology, at the University of Alabama at Birmingham announces the availability of postdoctoral positions in the general area of signal transduction in disease mechanisms. Candidates should have a Ph.D., or equivalent degree. Experience in molecular biological, cell biological, or biochemical techniques is preferred. The following faculty and their areas of interest are participating in the training program:

<b>Victor M. Darley-USmar, Ph.D. -</b>	Mechanisms of nitric oxide and free radical signaling in atherosclerosis and ischemic injury.
<b>Hanjoong Jo, Ph.D. -</b>	Mechanisms of G-protein dependent signaling pathways in the regulation of endothelial cell function in response to shear stress.
<b>Thomas M. Lincoln, Ph.D. -</b>	Mechanisms of action of cyclic GMP and protein phosphorylation in vascular disorders.
<b>Joseph L. Messina, Ph.D. -</b>	Mechanisms of insulin and growth hormone action in the regulation of gene expression in diabetes and vascular diseases.
<b>Joanne E. Murphy-Ullrich, Ph.D. -</b>	Mechanisms of matrix protein signaling in the regulation of endothelial cell adhesion and growth factor activity/expression.

Interested candidates should send a curriculum vitae, the names of three individuals to serve as references, and your particular project(s) of interest by January 15, 1996 to:

**Dr. Thomas M. Lincoln, Director  
Division of Molecular and Cellular Pathology  
Department of Pathology  
The University of Alabama at Birmingham  
1670 University Boulevard  
Birmingham, Alabama 35294-0019  
Telephone: (205) 934-4612  
Fax: (205) 934-1775**

**UAB**



# European Science Education

A SCIENCE Cover Story

Advertising Space Reservation Deadline: 16 January 1996

Issue Date: 2 February 1996



**Free placement on SCIENCE Global Career Network.**  
Every advertisement in this issue will receive placement on the SCIENCE world wide web service.

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

**For advertising information, please call :**

**In Europe,**

**+44 (0) 1223 302 067, or fax: +44 (0) 1223 302 068.**

**In the U.S.,**

**(202) 326-6532, or fax: (202) 682-0816.**

**In Japan,**

**+81 3 3235-5961, or fax: +81 3 3235-5852.**

**In Australia,**

**+61 02 922 2977, or fax: +61 02 922 1100.**

**SCIENCE**  
COVERS THE WORLD

## INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH (IAI) POSITION ANNOUNCEMENT -SCIENTIFIC OFFICER

### THE IAI

Established by 11 countries in 1992, the Inter-American Institute for Global Change Research (IAI) pursues a scientific agenda through a network of institutions and professional associates. Initial research priorities of the Institute include studies of tropical ecosystems and biogeochemical cycles, the impacts of climate change on biodiversity, El Niño-Southern Oscillation and interannual climate variability, ocean/atmosphere/land interactions in the intertropical Americas, oceanic/coastal/estuarine processes in temperate zones, temperate terrestrial ecosystems, and high latitude processes.

These priorities were selected because they are regionally relevant for policy-making and will foster cooperation among research entities (including extra-regional ones), strengthen global change research capabilities and infrastructure of the region, and improve public awareness and information relating to global environmental conditions, resource management, and sustainable development. Through its research the new Institute earnestly attempts to forge linkages between the products of scientific research and the region's most pressing environmental issues so that those products are available to decision-makers interested in implementing sustainable development in the Americas.

The Institute's Directorate (IAI's administrative organ), composed of a small staff which includes a Director, Financial Officer, and Scientific Officer, is located at the main campus of Brazil's National Institute for Space Research (INPE) in São José dos Campos, São Paulo. The Directorate, the Scientific Advisory Committee (IAI's scientific advisory organ), and the Executive Council (IAI's executive organ) are funded by voluntary contributions of member's countries; extramural grants complement these voluntary contributions to finance major research programs and specific projects. An endowment may be created in the future to diversify further the funding base.

### THE POSITION

**1. Main responsibilities** - Reporting to the IAI Director, the Scientific Officer (SO) is chiefly responsible for proposing and implementing research-related policies and systems, for monitoring (and preparing, on a timely basis, required reports on) the scientific progress of the Institute, and for supporting the work of the Scientific Advisory Committee so that the research agenda and related priorities are transparent, activities are efficiently undertaken through decentralized and collaborative efforts, and the Institute is fully accountable to its member countries and donors.

In the monitoring role, the SO is responsible for ensuring that clear purposes and end-products (quantifiable and measurable, to the extent possible) are in place for each research activity, and that peer review processes are utilized objectively and on a timely basis. The SO will also take responsibility for seeing to it that research processes and research end-products, in each instance, include appropriate interfaces with the policy communities of the Americas. And the SO will serve as the principal advisor to the Scientific Advisory Committee and the Director in their designated roles as reviewers of IAI proposals, projects, and programs. In the supporting role, the SO serves as the primary liaison with IAI Research Consortia, Centers, and Institutions concerning project design, implementation, and monitoring, and is to assist them in identifying sources of funding for the work they propose. Close and productive relations must be built and maintained between the SO and the donor community interested in global change research.

In addition, the SO will be responsible for assisting with the preparation of scientific papers by IAI's Directorate, serving as a scientific spokesperson for the Institute, and developing beneficial contacts with the many regional and international entities, conventions, and protocols involved in global change issues.

**2. Qualifications** - The SO should be an internationally recognized authority with a wide range of experience and knowledge of the technical and scientific issues relating to global change. High-level research accomplishments should be evidenced, as well as a demonstrable record of (and commitment to) successfully linking research to policy decision-making. Strong conceptualizing skills are sought, along with skills of verbal and written communication in English and another language of the region. Experience on research project formulation, monitoring and evaluation is desired. Experience working in multidisciplinary research environments is desired, as well as an established network of contacts in the donor community. The SO must hold a Ph.D. degree or equivalent in a science relevant to the field of inquiry, including a social science.

**3. Appointment Terms** - SO will be appointed as soon as possible for a five-year term which can be renewed. An internationally competitive total compensation package will be provided.

### APPLICATION INSTRUCTIONS

Applications and nominations of interested candidates should include (a) a cover letter which directly relates the main responsibilities and qualifications of the position to the candidate's qualifications, (b) a current curriculum vitae that includes a listing of scholarly publications authored, and (c) the names/addresses/phones/faxes of three referees. These materials should be sent to the address shown below. The proposed deadline is December 29, 1995, but applications will be accepted until a suitable candidate has been identified.

IAI Director, c/o INPE, Av. Astronautas 1758  
São José dos Campos, SP Brasil

EOE/M/F/D/V

**California Institute of Technology  
Postdoctoral Fellowships in Geological and Planetary Sciences**

The California Institute of Technology announces two fellowships in earth and planetary sciences:

**The O.K. EARL POSTDOCTORAL FELLOWSHIP and  
The TEXACO POSTDOCTORAL FELLOWSHIP.**

These awards are from funds endowed by ORRIN K. EARL, JR. and by the TEXACO PHILANTHROPIC FOUNDATION. Each fellowship carries an annual stipend of \$34,000 and offers a research expense fund of \$1,000 per year and one-way travel to Pasadena. The duration of each appointment will normally be for two years, contingent upon good progress in the first year, and beginning with the 1996-97 academic year. Fellows are eligible to participate in Caltech's health and dental program.

These fellowships have been established to support the research of scientists typically within two years after receipt of the Ph.D. The intent of the program is to identify and support innovative and creative work in the earth and planetary sciences, with particular emphasis on interdisciplinary work. Applicants with training in physics, chemistry, biology or computer sciences are urged to apply. The Caltech faculty is currently active in geobiology, geochemistry, geology, geophysics, petrology, seismology and atmospheric and planetary sciences. It is expected that each fellowship holder will be hosted by a division professor (designated by the division chair) who will contribute to the fellowship support both financially and by providing intellectual guidance.

Application forms may be obtained by writing to Prof. E.M. Stolper, Chair, Division of Geological and Planetary Sciences, Mail Code 170-25, California Institute of Technology, Pasadena, California 91125 (e-mail: [stover@arms.gps.caltech.edu](mailto:stover@arms.gps.caltech.edu)).

**COMPLETED APPLICATIONS WITH REFERENCES  
SHOULD ARRIVE AT CALTECH  
BY MONDAY, JANUARY 15, 1996.**

Fellowship candidates will automatically be considered for other available postdoctoral positions at Caltech in their fields of interest.

*Caltech is an Affirmative Action/Equal opportunity Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.*

**FACULTY POSITION IN PHARMACOLOGY  
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
SCHOOL OF MEDICINE**

The Department of Pharmacology invites applications for a tenure-track position at the Assistant Professor level. Qualified candidates will be considered at the Associate Professor level. Applicants must have a relevant Ph.D. or M.D. degree and at least two years of postdoctoral training. Preference will be given to individuals with demonstrated competence in applying modern techniques of biophysics and biochemistry to fundamental structure/function problems in the broad area of signal transduction. The successful candidate will be expected to establish a well-funded, independent research program and to participate in the graduate and professional teaching activities of the Department.

The strengths of the Department include active research programs in a) signal transduction and growth regulation, b) neuropharmacology and intracellular signaling, c) nucleic acid biochemistry and molecular mechanisms or resistance to anti-cancer drugs, d) cell adhesion mechanisms, e) membrane protein structure/function and f) membrane receptor and ion channel biology. The Department faculty interact extensively with basic and clinical scientists in other departments and with academic and industrial scientists throughout the Research Triangle. The Department conducts a strong graduate program supported by an NIH training grant.

University shared instrumentation facilities include digitized video microscopy, high field biological NMR, single crystal X-ray, confocal and electron microscopy and protein/peptide synthesis facilities. In addition, the university maintains EPR, FT-IR, fluorescence, CD, and mass spectrometers. University computer resources include a major molecular modeling and graphics facility, and VAX 6030 and Convex C240 minisupercomputers, as well as access to the North Carolina Supercomputing Center, which houses a Cray YMP 8-432.

*The University of North Carolina is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates. Applicants should send a curriculum vitae, a statement of research plans, and the names of three referees to: C.J. Der, Faculty Search Committee Chairman, Department of Pharmacology, CB# 7365, University of North Carolina, Chapel Hill, NC 27599-7365. UNC-CH is an Equal Opportunity/Affirmative Action Employer.*

**The Department of Pharmacology,  
University of Wisconsin  
announces an**

**INTERNATIONAL SYMPOSIUM**

**"Role of the Phosphoinositides in Cell Signaling,"**

**June 20- 23, 1996.**

at the University of Wisconsin-Madison.

This symposium honors the distinguished contributions of  
Mabel Hokin-Neaverson and Lowell Hokin to signal transduction.

**SPEAKERS**

Lowell Hokin - Univ. of Wisconsin.	Philip W. Majerus - Washington University
Mabel Hokin-Neaverson - Univ. of Wisconsin.	Thomas F. J. Martin - Univ. of Wisconsin,
Richard A. Anderson - Univ. of Wisconsin.	Robert H. Michell - Univ. of Birmingham.
Michael J. Berridge - Cambridge University.	Katsuhiko Mikoshiba - Univ. of Tokyo.
Lewis C. Cantley - Harvard University.	Sue Goo Rhee - Natl. Inst. of Health
David E. Clapham - Mayo Clinic and Foundation.	Len Stephens - Cambridge University.
Shamshad Cockcroft - University College London.	Jeremy W. Thorner - Univ. of Cal.-Berkeley.
Scott D. Emr - Univ. of Cal.-San Diego.	Michael D. Waterfield - Ludwig Institute.
John H. Exton - Vanderbilt University.	Robin F. Irvine - Cambridge University.
Karel W. Wirtz - Utrecht University.	

**For registration and poster session information, please contact:  
Marie Ellingson, Conference Services-Wisconsin Union  
800 Langdon St., Madison, WI 53706.  
(608) 262-2755. Fax (608) 262-5487.**

**GLOBAL CAREER OPPORTUNITIES**

  
SMITTSKYDD SINSTITUTET



**Postdoctoral  
Positions**

**Bacterial adaption in complex  
environments**

Two positions immediately available for up to three years in the Infectious Biology Program. Applicants are expected to have a strong background in medical microbiology, microbial physiology and/or molecular genetics to participate in the development of novel strategies to prevent and treat hospital acquired and water borne infections. The research will involve adaptory responses to various stresses and environmental conditions, and the involvement of these responses in the survival and transmission of bacteria from environment to man.

Further details can be obtained by contacting Prof Staffan Normark (tel 46 8 735 11 10 or fax 46 8 735 10 40) or Dr Lars G Burman (tel 46 8 735 14 23 or fax 46 8 735 14 22).

Applications, which should include a full CV, a brief statement of research interests and experience and the names of two referees, should be sent to Professor Staffan Normark, Swedish Institute for Infectious Disease Control, S-105 21 Stockholm, Sweden. The closing date for applications is January 2, 1996.



## PRINCIPAL SCIENTIST Gastrointestinal Physiology

Wyeth-Ayerst Research, a division of Fortune 150 American Home Products Corporation, has an opportunity available in the Nutritional Research Department in Radnor, PA.

Reporting to the Sr. Director of Nutritional Research, you will conduct research related to the interaction of nutrition with the gastrointestinal function. Your primary focus will be on infant formula and pediatric enteral products, although other areas may be explored.

The successful candidate must be a Ph.D. with 5+ years experience in gastrointestinal physiology. A working knowledge of gastrointestinal physiology, intraluminal digestion and absorption of nutrients, and familiarity with techniques for in vitro and in vivo assessment of gastrointestinal physiology and pathophysiology are required. Experience with nutrient modulation of gastrointestinal micro flora and a fundamental knowledge of nutrition and nutritional assessment techniques are essential. Excellent verbal/written communication skills, the ability to develop multiple research projects simultaneously and under minimal supervision, and to interact with a multi-disciplinary team of scientists are also required.

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Please respond by sending your resume with salary requirements to: **Wyeth-Ayerst Research, Human Resources Dept. #RS-1582, P.O. Box 8299, Philadelphia, PA 19101.** Or you may fax your resume directly into our centralized Research resume database at (610) 989-4854. Equal Opportunity Employer, M/F/D/V.



*Leading The Way for a Healthier World*

## GLOBAL CAREER OPPORTUNITIES

# MRC

### MEDICAL RESEARCH COUNCIL

**Laboratory of Molecular Biology, Cambridge**

#### TENURE TRACK POSITION IN NEUROBIOLOGY

Applications are invited from independent scientists to develop a programme of basic molecular research in the Division of Neurobiology.

Current topics of particular interest are mechanisms of synaptic transmission, electrophysiological studies of neuronal function gene regulation and molecular processes underlying learning, memory and neurodegeneration.

Successful applicants will be able to interact closely with staff in other Divisions of the Laboratory of Molecular Biology. Research in the Laboratory centres around a variety of projects that explore the structures and properties of proteins, nucleic acids, membranes and organelles, and are aimed at understanding cellular processes at the molecular level. An excellent range of cell culture and biochemical facilities, shared instrumentation and workshops is available.

Salary will be at an appropriate point on the MRC Non-Clinical Scientific scale (equivalent to the University Academic scale). Further information can be obtained from Dr. Nigel Unwin (01223) 402492.

Applications, including CV, a brief description of research interests and the names and addresses of two professional referees should be sent as soon as possible, quoting reference TT/NU to:

Dr. Rosie Ward  
Personnel Manager  
MRC Centre  
Hills Road  
Cambridge CB2 2QH, UK

*The Medical Research Council is an  
Equal Opportunities Employer.*

## GLOBAL CAREER OPPORTUNITIES

### Associate/Assistant Professorship in Mycology

Applications are invited for a tenured Associate Professorship in Mycology at the Department of Ecology and Molecular Biology, Royal Veterinary and Agricultural University (KVL) at Copenhagen, Denmark. The successful applicant is expected to take up the position February 1, 1996 or shortly after.

The position primarily involves research on the interactions between microfungi and bacteria, animals and plants in the soil, including microfungal activity and population dynamics, studies of fungal physiology, e.g. cell differentiation and metabolite production, are also part of the research. The associate professor is expected to cooperate with the present research group in Soil Microbiology at the Microbiology Section, but it is expected that departmental research in entomophagous and nematophagous fungi should also benefit from the research. The associate professorship includes teaching and supervision of undergraduate and graduate students, as well as guidance of assistant professors.

The scientific qualifications of the applicant are of major importance and should include a publication record at an international level within the area of the microfungal ecology and physiology. Scientific experience corresponding to a Ph.D. and subsequent employment as assistant professor for 3-4 years is usually required. The applicant should have research experience with cytochemical, immunological or molecular DNA methods to detect and identify specific microfungi and their products in natural environments. Teaching and supervision experience at the graduate level or higher must be documented. The employed candidate is expected to master the English language and soon acquire the Danish language for teaching and supervision of students.

If no applicants are qualified for the associate professorship as described above the position will be filled at the level of assistant professorship, which is a 3-year training position to qualify as an associate professor. Candidates for the assistant professorship should have a Ph.D. from 1980 or later within mycological

research as described above. The candidate must be talented and highly motivated for international level research.

Applications shall include curriculum vitae in 4 copies with personal data, publication list and proof of educational degrees and teaching qualifications. Publications which the applicant wishes to include for evaluation must also be enclosed in 4 copies. All CVs and enclosures should be sorted in 4 identical sets. Applicants are encouraged to write a short memorandum summarizing their most important scientific contributions and describing their teaching skills and experience.

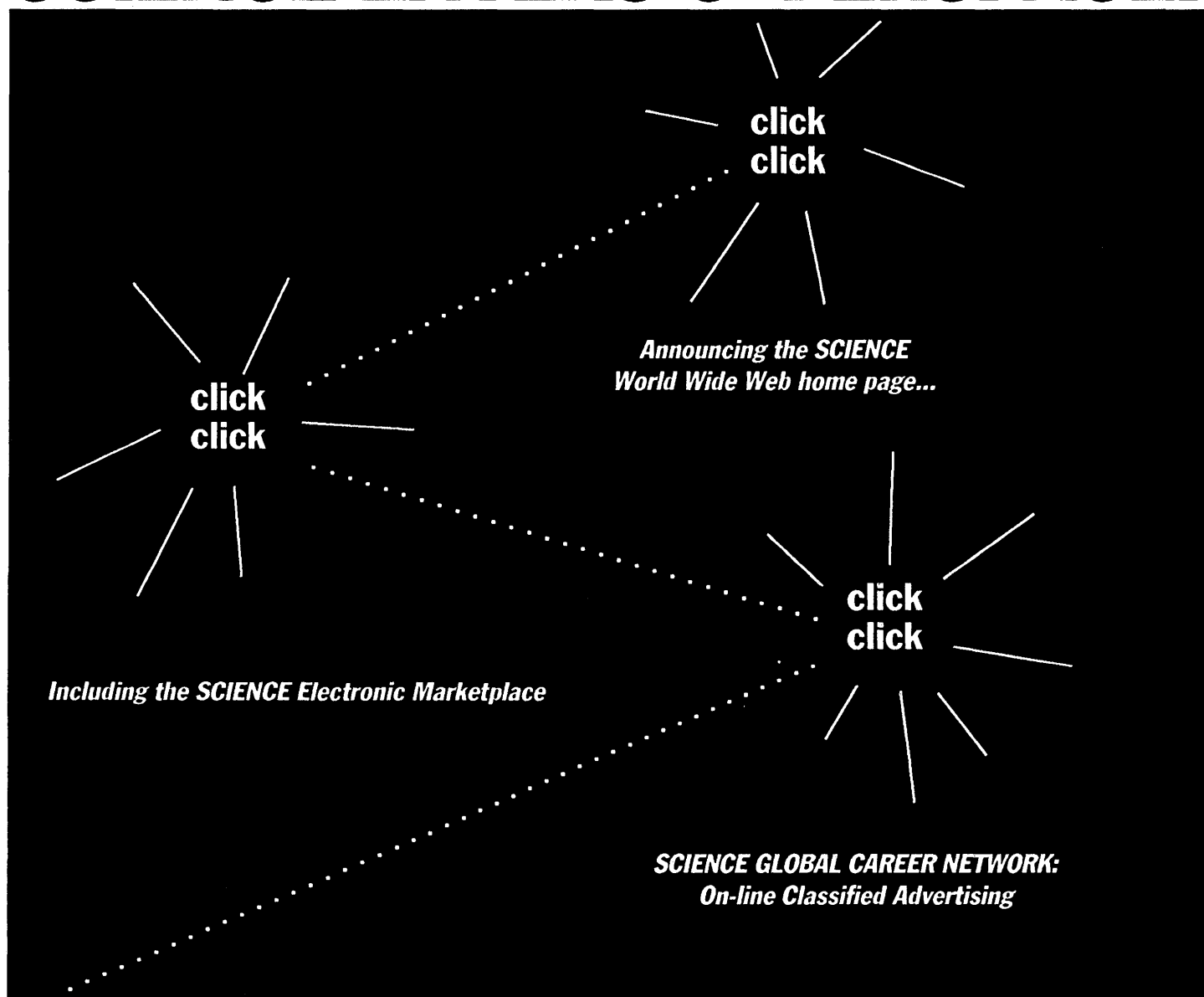
Applications will be evaluated in accordance with the Danish Ministry of Education Directive 728, dated September 9, 1993. During evaluation, the committee may request further information and material from the applicants. The unabridged recommendation of the committee will be sent to all applicants. Terms of employment will be in accordance with the standard agreement between the Danish Ministry of Finance and AC (the federation of graduate employee unions).

Further information about the Associate professorship in Mycology may be obtained from Associate professor Jans Wolstrup (Head of Department) on tel. (+45) 35 28 26 28 or Professor Jan Sørensen on tel. (+45) 35 28 26 26. Applications marked 621-00113-33 must be received by the **Royal Veterinary and Agricultural University, Administrationen, Bülowsvej 13, 1870 Frederiksberg C (Copenhagen), Denmark no later than January 2, 1996.**

**KVL**



# SCIENCE ENTERS CYBERSPACE!



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

- **SCIENCE Electronic Marketplace:** Do you need the latest scientific product information from top companies? You'll find just what you're looking for in the Electronic Marketplace.

- **SCIENCE GLOBAL CAREER NETWORK:** With SCIENCE GLOBAL CAREER NETWORK: On-line classified advertising, you can survey the latest in career opportunities from around the world each week. You'll also find additional on-line career related articles and information.

- **Beyond the Printed Page:** This exclusive on-line feature includes special interactive projects such as, *Conduct in Science*, important data and a constantly evolving collection of electronic information that pioneers new territory beyond the printed pages of SCIENCE.

- **SCIENCE On-line:** Read the SCIENCE Table of Contents, the SCIENCE Editorial and This Week in SCIENCE the same day that the printed version is published!

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

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

**SCIENCE**  
COVERS THE WORLD



### Endowed Professorship in Neuroscience

Departments of Neurology and Neurobiology and Anatomy  
and the Center for Investigative Neuroscience of  
Bowman Gray School of Medicine, Wake Forest University

We are seeking an *external candidate* with a strong, well established research program who is using cellular and molecular approaches to study basic neurobiological mechanisms related to neuromuscular disorders. Areas of special interest include trophic/nutritional aspects, axonal growth and regeneration, synapse formation, and animals models of disease and gene therapy, including transgenics. The endowment provides annual research funds to be used at the discretion of the successful candidate. The Bowman Gray School of Medicine of Wake Forest University offers a unique opportunity to interact with neurobiologists with diverse interests that comprise part of a strong and active interdisciplinary Ph.D. Program in Neuroscience with 25 graduate students and over 70 faculty. Send curriculum vitae and a brief one page description of research interests to: **Dr. Ronald Oppenheim, Department of Neurobiology and Anatomy, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27157-1010.** AA/EOE



### POSITIONS AVAILABLE IN CROP BIOTECHNOLOGY

Ceregen Technology (formerly the New Products Division of the Agricultural Group) of Monsanto Co. has immediate openings for innovative researchers (with a Ph.D. degree or with a BS and/or MS degree and extensive work experience) for the development of crop transformation technologies. Senior and entry level positions, as well as post doctoral research associate positions, are currently available for the transformation of soybean, cotton, potato, wheat and corn. Candidates should have considerable experience with plant tissue culture and plant transformation techniques. The ability and willingness to work in a multi-disciplinary research team environment is required.

Ceregen Technology is also seeking an outstanding scientist to conduct research in the genetic modification of crops for enhanced resistance to fungal pathogens. A strong ability to propose and design innovative research projects, as well as a Ph.D. degree in Molecular Biology, Biochemistry or Molecular Plant Pathology (with at least 2-3 years of post-doctoral experience in plant/pathogen interactions) is required. Highly experienced non-Ph.D. level scientists will also be considered.

The Monsanto Plant Science Technology group is a world class organization with strong commitment to the discovery of novel traits for crop plants using biotechnology. The qualified individuals will join scientists with expertise in gene expression, plant development, plant growth regulators, plant transformation, molecular biology, and biochemistry to contribute to research to develop products that provide value to agriculture worldwide.

Monsanto is an Equal Opportunity employer. Minorities, females, disabled, and veterans are encouraged to apply. We will provide reasonable accommodations upon request. Please send your resume and a list of at least 3 references to:

Barbara Rhodes  
Ceregen Technology  
Monsanto Co.  
Mail Zone GG4J  
700 Chesterfield Village Parkway  
St. Louis, MO. 63198  
bdrhod@cmail.monsanto.com

## RECRUITMENT ADVERTISERS

# East Coast Careers Forecast

Issue date: 15 December

Space Reservation Deadline: 28 November

In this special advertorial, we will look at current trends and news surrounding the biotech and pharmaceutical industry on the east coast, making this issue an excellent opportunity to draw more attention to the scientific career opportunities available within your company.

### TAKE ADVANTAGE OF OUR 25% DISCOUNT!

Repeat your ad within 8 weeks and receive 25% off the second placement!

### FREE PLACEMENT ON SCIENCE Global Career Network!

Every advertisement receives placement on the SCIENCE world wide web service.

SCIENCE Global Career Network address: <http://www.aaas.org>

For more information or to reserve your space,  
call Janis Crowley at (202) 326-6532.

**SCIENCE**  
COVERS THE WORLD



## POSITIONS OPEN

USDA, Agricultural Research Service (ARS), Appalachian Fruit Research Station, Kearneysville, West Virginia, announces an interdisciplinary **SUPPORT SCIENTIST** position for a horticulturist with specialized knowledge and skills in plant tissue culture, genetic transformation of plants, and molecular biology. The incumbent will be part of a multidisciplinary fruit crop improvement research group. Research will focus on the transformation of deciduous perennial fruit species. Salary range is \$29,898 to \$36,174, commensurate with experience. *U.S. citizenship required.* For a copy of the vacancy announcement, including application procedures and forms, contact **Janie Carr** in Personnel, Telephone: 301-344-4569. For further information on the scientific program, please contact: **Dr. Ralph Scorza**, USDA, ARS, Appalachian Fruit Research Station, 45 Wiltshire Road, Kearneysville, WV 25430. Telephone: 304-725-3451, x322. For a copy of the announcement, including procedures, contact: **Janie Carr**, Telephone: 301-344-1921.

USDA, Agricultural Research Service  
Personnel Operations Branch, NS  
8305 Ivy Lane, Room 328  
Greenbelt, MD 20770-1435

*An Equal Opportunity Employer.*

**FELLOWSHIPS.** Stanford University's Center for International Security and Arms Control announces one-year fellowships starting fall 1996 for natural scientists and engineers interested in doing research in an interdisciplinary environment on technical and policy problems relating to arms control, international security, defense planning, or defense conversion. Winners spend 12 months in residence at the Center; stipends determined on a case-by-case basis.

Applications due February 16, 1996. For information, write **CISAC**, 320 Galvez Street, Stanford, CA 94305-6165. FAX: 415-723-0089; Email: hf.gxb@forsythe.stanford.edu.

### RESEARCH ASSOCIATE IN PSYCHOPHARMACOLOGY

Position available in July 1996, in a unique and stimulating human psychopharmacology laboratory. Develop, implement, and publish research related to the subjective, reinforcing, and analgesic effects of various psychoactive drugs, including nitrous oxide and opioids. Experimental background and research experience required. Send curriculum vitae, letter of interest, and names and telephone numbers of three references by March 1, 1996 to: **James Zacny, Ph.D., Co-Director, Human Psychomotor Performance Laboratory, The Department of Anesthesia and Critical Care, MC4028, University of Chicago Medical Center, 5841 South Maryland Avenue, Chicago, IL 60637.** *Affirmative Action/Equal Opportunity Employer.*

### RESEARCH ASSOCIATE IN AUDITION

A research position in the Department of Psychology at the University of Minnesota is available to study the dynamic properties of normal and impaired hearing, with special emphasis on the processing of amplitude and frequency modulation. Applicants must have a Ph.D., preferably in psychology or electrical engineering, and background, including research experience, in psychoacoustics. Skills in qualitative modeling and in computer usage in auditory research are desirable. The research will be conducted at the Psychoacoustics Laboratory under the direction of **Dr. Neal Viemeister**. Salary: \$40,000 to \$43,000 per year, depending on qualifications and experience. The appointment is as a **RESEARCH ASSOCIATE** and is for 12 months at 100% time, renewable annually. This is not a tenure-track position but it does offer the possibility of long-term employment. The starting date is approximately February 1, 1996. Candidates should submit a curriculum vitae, three letters of reference, representative reprints and preprints, and a statement of long-term research interests to:

**Professor Neal Viemeister**  
Department of Psychology  
University of Minnesota  
75 East River Road  
Minneapolis, MN 55455

(Email: NFV@nextear.psych.umn.edu)

Applications must be received by December 31, 1995. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

## POSITIONS OPEN

### FELLOWSHIPS IN REPRODUCTIVE BIOLOGY NORTHWESTERN UNIVERSITY

**POSTDOCTORAL and PREDOCTORAL FELLOWSHIPS** are available in reproductive biology for highly qualified applicants. A diverse but integrated program offers research training in molecular, biochemical, cellular, physiological, and behavioral aspects of reproduction. Participating faculty include: **James Bartles** (sperm surface polarity); **Erwin Goldberg** (molecular biology of the testis); **Mary Hunzicker-Dunn** (ovarian signal transduction); **J. Larry Jameson** (hormonal regulation of gene expression); **Jon Levine** (neuroendocrinology of peptidergic neurons); **Daniel Linzer** (molecular endocrinology); **Kelly Mayo** (gene regulation in reproductive systems); **Neena Schwartz** (gonadal-pituitary endocrinology); and **Fred Turek** (seasonal cycles/circadian clocks). Send curriculum vitae and names of three references to: **Dr. Jon E. Levine, Department of Neurobiology and Physiology, Northwestern University, 2153 North Campus Drive, Evanston, IL 60208-3520.** Applicants must be eligible for NIH training support (*U.S. citizens or permanent residents*).

### OPEN EXAMINATION FOR SENIOR TOXICOLOGIST

The California Environmental Protection Agency, Department of Pesticide Regulation, seeks a **SENIOR TOXICOLOGIST** in the pesticide regulatory program. Requirements: four years of postdoctoral experience in toxicology or closely related field. This experience must include the interpretation of toxicological findings relative to probable human health and one year of experience in the development and design of toxicological research and investigative studies. The senior toxicologist position is responsible for both supervisory tasks and may perform the most difficult or sensitive work. The position is located in Sacramento. Salary range: \$5,242 to \$6,336 per month. Comprehensive benefits package. Submit application and résumé to the address below by the Final File Date: November 30, 1995.

Department of Pesticide Regulation  
Personnel/Examination Unit  
1020 N Street, Room 126  
Sacramento, CA 95814  
Attn: SDJ

For State application and announcement Telephone: 916-322-4553.

### CELL BIOLOGIST

CryoLife, Inc. invites applications and nominations for an individual with training in cell biology. This **SCIENTIST** position in the Research and Development Department is available immediately. Responsibilities will include proposing, planning, and executing studies of allogeneic connective grafting with emphasis on ligament and vessel prosthetic devices based on natural tissue. Requirements include a doctorate degree in biochemistry or cell biology or pathology and an interest in connective tissue protein chemistry, vascular biology, immunology, or related fields.

Two to three years of experience in prosthetic graft evaluation is preferred. A working knowledge of immunomodulation of allograft tissues and connective tissue cell biology is a further qualification for this position.

This position is supported by NIH grant funds, but may be converted to a regular, full-time position at a later date.

CryoLife, Inc. is known worldwide for cryopreservation of cardiovascular tissues for human transplantation.

Please direct résumés and the names of three references to: **KH, Human Resources, CryoLife, Inc., 2211 New Market Parkway, Suite 142, Marietta, GA 30067.**

### RESEARCH ASSOCIATE POSITION

Candidates must be capable of independent work on the study of the mammalian visual system *in vivo* and have experience with multielectrode techniques, computerized data acquisition, pharmacology, and whole-cell recording. Requirements also include a Ph.D. in physiology or a related area, a minimum of three years of experience in above duties, and a strong publication record. Salary: \$35,000. Interested candidates should forward their curriculum vitae and have three letters of reference sent to: **Dr. Torsten Wiesel, Laboratory of Neurobiology, The Rockefeller University, 1230 York Avenue, New York, NY 10021.** FAX: 212-327-7852.

## POSITIONS OPEN

**RESEARCH INSTRUCTOR** needed to participate in independent and team research in the study of the applications of laser scanning confocal microscopy to problems of biomedical science. Current applications include ion imaging, membrane potential imaging, cell shape and topography, fluorescence polarization, resonance energy transfer, clinical diagnostics, and development of instrumentation and computer hardware and software. Ph.D. with background in computer science, biophysics, optics, or mathematics required. Practical experience in computer software development (UNIX, Fortran, C), lasers, volume rendering, and digital and analog circuit design and computer troubleshooting helpful. Salary will be commensurate with experience. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. John J. Lemasters, Director of Confocal Imaging, Department of Cell Biology and Anatomy, School of Medicine, CB Number 7090, 236 Taylor Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7090.** *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## ANNOUNCEMENT

### PARKINSON RESEARCH GRANTS 1996-1997

The National Parkinson Foundation of Miami, Florida invites the submission of grant proposals for Parkinson research. Funding is made available to support basic bench research in Parkinson's disease. The award for a single grant will not exceed \$40,000. None of the monies are to be utilized for administrative overhead or travel expenses. The application deadline is February 1, 1996. Funding will commence on June 1, 1996. It is required that proposed studies specifically focus on mechanisms involved in the disease process and that they have the potential of finding the cause and prevention of Parkinson's disease. Scientists entering the field of Parkinson research are encouraged to apply. Proposals will be assessed by the National Parkinson Foundation Scientific Advisory Board. To obtain submission information please write to:

National Parkinson Foundation  
Research Grants Administrator  
1501 N.W. Ninth Avenue  
Miami, FL 33136

## COURSES AND TRAINING

### CAREER CHANGE OPPORTUNITY

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

## COMPUTER MARKETPLACE

**For Mac Lovers**  
The best bibliography software  
-only for the Mac-

**bookends pro ver. 3.2**

e-mail: westing3@aol.com

http://www.westinginc.com.westing

Phone: 1-800-325-1862

Circle No. 71 on Readers' Service Card

## MARKETPLACE

### Unique Primary Antibodies for . . .

- \* Nuclear Matrix Proteins
- \* CD44 (v3, v6 & v7)
- \* HSP (27, 60, 70)
- \* ER/PR Receptors

**Diagnostic BioSystems**  
(510) 226-9616 Fax (510) 226-6757

Circle No. 46 on Readers' Service Card  
Marketplace ads continue on next page

## MARKETPLACE

## ABS Bioreagents™

**Custom Receptor Binding,  
Enzyme, and RNA Preparations  
Including Human Tissue Preps  
Cell Culture Services**

**Analytical Biological Services Inc.**  
(800) 391-2391 fax (302) 654-8046

Circle No. 41 on Readers' Service Card

Custom DNA from \$1.00/base



ransom hill bioscience, inc.

**no setup, no minimum, no baloney!**  
Internet: visla@delphi.com fax: (800) 597-8509

Circle No. 47 on Readers' Service Card

## Princeton BioMolecules

**80%+ PURE CUSTOM PEPTIDES**

**Reliability + Quality + Service = Value**  
80+% purity, 15+mg, free HPLC trace, free MS, no setup fee

Call: 614-487-3663 Fax: 614-487-3664  
Your partners in research

Circle No. 42 on Readers' Service Card

**NEWS  
FOR  
NO  
researchers**

Nitric Oxide Research Range

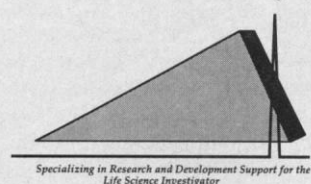
◀ **Antibodies to NOS** ▶  
◀ **Biochemicals** ▶

literature and products from

**AFFINITY Research Products Ltd.**  
FAX +44/0 1626 891090  
E-MAIL: 100337.1606@COMPUSERVE.COM

Circle No. 55 on Readers' Service Card

Commonwealth Biotechnologies, Inc.



Specializing in Research and Development Support for the Life Science Investigator

- Automated DNA sequence analysis < \$0.50 per base
- Custom DNA/RNA synthesis
- Protein/peptide synthesis and sequence analysis
- Spectroscopy/calorimetry experiments
- Mass spec services; MALDI-TOF, ES/MS

LET US QUOTE YOUR SPECIAL PROJECTS

Fax: 804-648-2641

Phone: 800-RELY-CBI

E-mail address: CBI@richnet.com

800-735-9224

Circle No. 35 on Readers' Service Card

## MARKETPLACE

## DNA | PEPTIDES

• \$1.75/base

- Column Purified
- No setup fee

• \$20/residue

- 15-40 mg in 5 days
- No setup fee

**GENEMED BIOTECHNOLOGIES**  
1 (800) 344-5337 • Fax (415) 952-9540

Circle No. 25 on Readers' Service Card

## CUSTOM DNA SYNTHESIS

PURE &amp; 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. 4 on Readers' Service Card

## FLUORESCENT MICROSPHERES

Distinctive colors for biology, diagnostics, physiology, aerosol, and filter testing applications

- Diameters from 0.025 µm to 10 µm in red, green, blue fluorescence
- Assorted surface properties for protein coupling
- Free catalog available

Call 800-334-3883 Toll Free or in Calif. 415-424-1177 FAX 415-424-1158



P.O. BOX 50005  
2483 FABER PLACE  
PALO ALTO, CA 94303

Circle No. 18 on Readers' Service Card

**SWant®** Swiss antibodies  
P.O. Box 2660

CH-6501 Bellinzona

Fax: +41 91 825 76 08

**Antibodies to calcium-binding proteins:**  
parvalbumin, calbindin, calretinin, S-100  
calcinurin, calmodulin, Ca-channels;  
Ca-exchangers! Fax for free catalogue!

Circle No. 73 on Readers' Service Card

## FEMTOMOLE PROTEIN SEQUENCING

- Means you can identify those proteins from 2D gels and minigels!
- Proprietary High Efficiency Sequencing Chemistry for PVDF-Immobilized Proteins
- Over 20 Years Experience in Microsequencing Technology
- Excellent Rates -- \$200/10 Residues

ARIAD Pharmaceuticals, Inc.

Phone: 617-494-0400 Ext. 261

Fax: 617-494-8144

Email: brauer@ariad.com

Circle No. 83 on Readers' Service Card

## MARKETPLACE

\* Video Gel Documentation \* Windows Based Gel Analysis \*  
**Wouldn't you rather destain your  
coomassie gels for minutes not hours?**  
**B/T Blo**  
\* Destain = 0 - few minutes (results immediately visible)  
\* Less solvent waste and less cost  
\* 2 fold greater sensitivity than coomassie  
Call B/T SciTech - 800-352-4474  
\* URL: <http://www.virtualad.com/browse/va/BT>  
\* Self Calibrating Pipettes \* Slide Makers \* Microtomes \*

Circle No. 59 on Readers' Service Card

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

Circle No. 70 on Readers' Service Card

**YES WE HAVE NO !!!**  
Complete systems for In Vivo & In Vitro  
measurements of nitric oxide, oxygen,  
pH, PCO<sub>2</sub>, calcium, potassium, & more!  
**DIAMOND GENERAL Corp.**  
<http://www.diamondgeneral.com>  
Telephone (800) 678-9856 or (313) 973 7160 FAX (313)973-0179

Circle No. 91 on Readers' Service Card

**ANA-GEN**  
Ana-Gen Technologies, Inc.

1-800-OLIGOS-1

e-mail: [anagen@svpal.org](mailto:anagen@svpal.org)

Custom Oligos

\* per base

79¢

\* 50 nmole

\* Order Before 1996

\* Minimum 100 bases order

\* 72 hour Turn around

- High Quality • Fast Turnaround
- No Charge for Mixed Bases
- Custom Modification: Biotin, Inosine, Uridine, Fluorescein, Phosphorylation, Digoxigenin
- S-Oligos Available

Circle No. 77 on Readers' Service Card

## CUSTOM PEPTIDES

**\$17 per AA\* - 20-50mg**

Free Mass Spec &amp; HPLC Trace; 5-7 Days

No Setup Charge; \*8-16 residues; unpurified

**\$15/AA\* - 6 or more peptides!**

Purification Costs: 85+% - \$195, 90+% - \$245,

95+% - \$295; e-mail: [peptide@qcb.com](mailto:peptide@qcb.com)

**Quality Controlled Biochemicals, Inc.**  
(800) 435-2080 • FAX: (508) 435-2199  
(508) 435-2080

Circle No. 51 on Readers' Service Card

- \* B95-8 EB Virus for cell transformation studies
- \* EBV genomic DNA for radioactive probes
- \* EBV positive and negative cell lines

**TAMPA BAY RESEARCH INSTITUTE**  
(813) 578-6675 FAX (813) 577-9862

Circle No. 94 on Readers' Service Card

Marketplace ads continue on page 882

## MARKETPLACE

CUSTOM ANTIBODIES  
TO PEPTIDES & PROTEINS

Purification, Conjugation and ELISA Titration Available



HTI BIO-PRODUCTS, INC.

1 (800) 481-9737 OR (619) 788-9691 Fax (619) 788-9694

Circle No. 49 on Readers' Service Card

## PACEMAKER

World Class

Custom peptides, conjugates and  
antibodies

Unrivalled product quality and service

AFFINITY Research Products Ltd.

Fax +44/0 1626 891090

E-MAIL: 100337.1606@COMPUSERVE.COM

Circle No. 54 on Readers' Service Card

## Free! NEUROCHEMICALS Catalog

Also available:

- Nitric Oxide Pathway Catalog
- Coagulation Enzymes & Proteins
- Endothelins Catalog

Call 1-800-900-0065

Fax (619)-658-9224



Circle No. 100 on Readers' Service Card

CUSTOM PEPTIDES  
High quality at unbeatable prices  
starting from \$195\*Order with confidence knowing that you'll  
get the quantity and purity you require with  
no hidden extras.

US: West Coast

Tel: 800 644 1866

Fax: 800 655 1866

US: East Coast

Tel: 800 633 8161

Fax: 800 424 3970

\* 10-30 mg, 8-15 residues, unpurified with mass spec. CM 1011

International:

Tel: +61 3 9565 1111

Fax: +61 3 9565 1199

Europe:

Tel: +33 72 41 7039

Fax: +33 78 37 4062



Circle No. 24 on Readers' Service Card

The premium  
antibody for  
phosphotyrosine  
detection is  
available from  
the laboratory  
where it  
originated, for  
the low price of

PY20

from  
TRANSDUCTION  
LABORATORIES  
1-800-227-4063only  
\$100/mg!Quality  
Antibodies  
for Signal  
Transduction  
Research

Circle No. 38 on Readers' Service Card

## DAKO CORPORATION

NEW! Amplification tools from DAKO

Increase your performance...

For immunohistochemistry:

DAKO® CATALYZED SIGNAL AMPLIFICATION (CSA) SYSTEM

For ELISAs:

DAKO® AMPAK

Call for more information  
and a FREE catalog

800/424-0021

Fax: 805/566-6688



DAKO

Circle No. 109 on Readers' Service Card

## MARKETPLACE

Serum-Free Human  
Endothelial CellsMore Cells / Lowest Price / Highest Quality  
Start up a 75 cm Flask / Recombinant Mitogen  
CSC Certificate™ #30566

1-800-697-1211

Circle No. 66 on Readers' Service Card

## MOLECULAR BIOLOGY

The Midland Certified Reagent Co. Molecular Biology Group

"We Clone Around the Clock!"

GENE SYNTHESIS We built the world's largest synthetic gene!

CUSTOM MUTAGENESIS Only the changes you want

DNA SEQUENCING As fast as 24 hours

-Guaranteed and Confidential-

Ph (800) 247-8766

Fx (915) 694-2387

MIDLAND

Web Site:

http://www.mcrc.com

Circle No. 19 on Readers' Service Card

XX IDT  
INTEGRATED DNA TECHNOLOGIES, INC.Custom DNA Synthesis  
\$1.65 / Base

200 nmole Scale

No Set-up Fee

Column Purified

24 Hour Shipping

Q.C. by PAGE on Every Oligo

Call today, join over 175  
institutions already on our  
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. 3 on Readers' Service Card

SCIENTIST  
Fits Equations To Data

- nonlinear algebraic equations
- implicit algebraic equations
- Laplace transforms
- ordinary differential equations
- various splines/polynomials

1-800-942-6284

MICROMATH®

Circle No. 26 on Readers' Service Card

The Peptide Engineering Specialist

## PeptideGenic

e mail: pkim@ccnet.com

Fax: 510-371-1156

Voice: 1-800-597-7873

Custom

Peptide

: \$20/residue/crude/5days

IonSpray MS Service :MS (\$30), LC/MS (\$250)

No Setup Fee,  
Free HPLC,  
IonSpray Mass

Circle No. 34 on Readers' Service Card

## MARKETPLACE

CUSTOM DNA as low as  
\$1.19 base UP TO 30 BASES

150 nmol scale (&gt;10 ODU)

Deprotected • No setup charges

Synthesis report • 24-48 hours shipping

CUSTOM PEPTIDES as low as  
\$20 residue 8-30 RESIDUES

15-40 mg • No set-up charges

Free mass spec &amp; HPLC tracing

Desalted • 5-8 days shipping



1-800-227-0627

FAX 214-420-0442

BIO-SYNTHESIS  
INCORPORATED

E-Mail: biosyn@conramp.net

Internet: http://www.biosyn.com

FDA#001235 • NIH BPA#263-00038171-04-BPA/C

Circle No. 40 on Readers' Service Card

## QUALITY CUVETTES!!!

Inexpensive Electroporation Cuvettes

Each sterile package includes a free  
pipette for easy sample removal!

1-800-289-2465

FAX: 619-597-9594

Circle No. 44 on Readers' Service Card

AUTOMATED  
DNA  
SEQUENCINGSEQWRIGHT  
DNA SequencingSEQWRIGHT, LLC  
2472 Bolsover #425  
Houston, TX 77005  
1-800-720-4363  
FAX: 713-528-6232

Circle No. 99 on Readers' Service Card

## Custom PEPTIDES

Purity >70%, \$20/Res. (offer thro. May)  
1st order disc., no setup fee, free HPLC/A.A. analy.

PEPTIDE ANTIBODY: \$250/Rabbit

UNBEATABLE: NO CHARGE IF NO ANTIBODY PRODUCTION

PEPTIDE LIBRARY: from \$150/library

1-800-400-0070 (Tel)

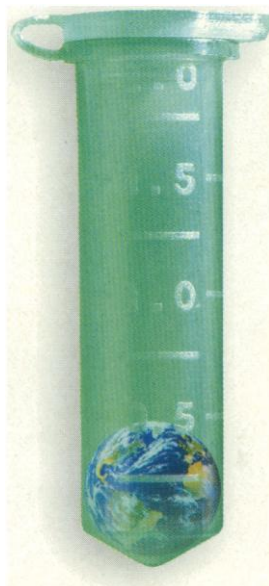
TANA LAB., LC. +1-713-663-7163 (Fax)

Circle No. 31 on Readers' Service Card

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

Circle No. 7 on Readers' Service Card





**WHILE OTHER DNA SUPPLIERS PROMISE YOU THE WORLD,  
OPERON ACTUALLY DELIVERS IT.**

Operon is the world's leading supplier of DNA. And we maintain that leadership by consistently delivering exactly the product you need. On time. With unsurpassed purity. Backed by an unconditional guarantee. And at an extremely competitive price.

For a brochure or to place an order, call us at **1-800-688-2248**.

**OPERON**

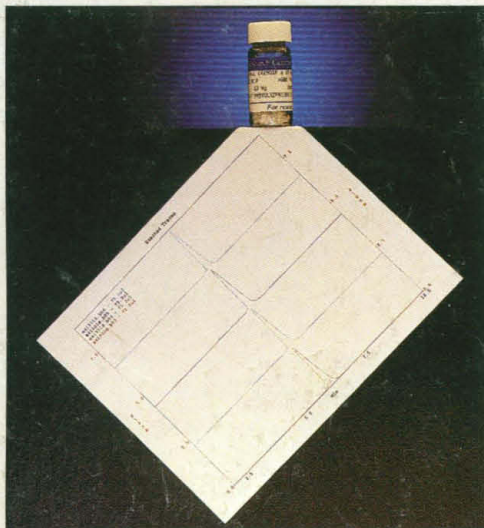
**WORLD'S LEADING SUPPLIER OF SYNTHETIC DNA**

©1994 Operon Technologies, Inc., 1000 Atlantic Avenue, Alameda, CA 94501, USA.  
Phone: (510) 865-8644 Fax: (510) 865-5255 NIHBP 263.00033233

Circle No. 97 on Readers' Service Card

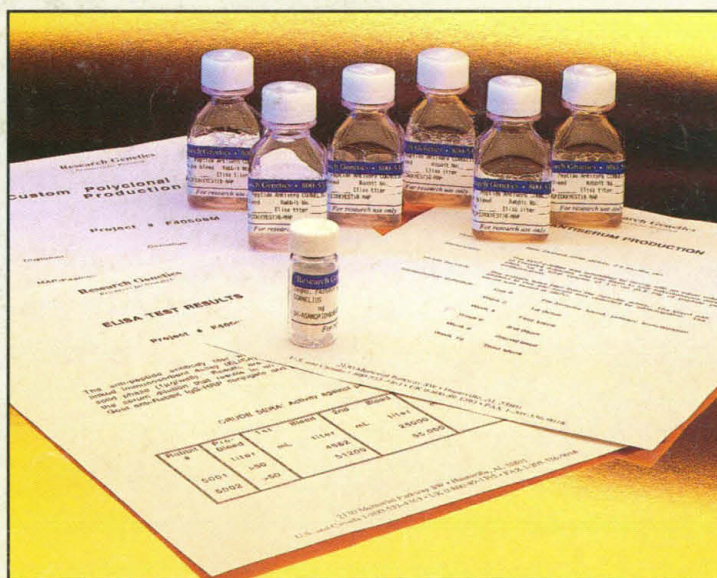
Peptides now just  
\$18 per residue!

## COMPLETE SERVICES FOR Peptides and Antibodies



Research Genetics eliminates the problem of having to choose between high quality, low-price and fast delivery in peptide production, with our express peptide service. With this service, we provide 15-40mg of 10-20mer peptides in 5 days for \$18 per residue with no setup charge. The peptide you receive will be fully deprotected, lyophilized, and packed under argon. Research Genetics offers a variety of custom options such as biotinylation, purification, acetylation, and amidation. Please contact us before placing your order to have these options more fully explained.

Research Genetics is proud to provide an economical 'start-to-finish' peptide antibody service. Your peptide will be synthesized utilizing the latest Fmoc solid phase methods with MAP resin technology which increases the antigenic response. Monoclonal antibodies will be delivered in 24 weeks costing \$8,500, and polyclonal in 16 weeks costing \$1,195. When requested, first bleed serum from polyclonal antibodies is available upon collection.



# Research Genetics, Inc.

2130 Memorial Pkwy SW • Huntsville, AL • 35801

U.S. or Canada 800-533-4363 • U.K. 0-800-89-1393 • FAX 205-536-9016

URL <http://www.resgen.com>

Circle No. 10 on Readers' Service Card

