

POWER PCR

from
TaKaRa

TaKaRa PCR Amplification and *in vitro* Cloning Kit.....

Provides Rapid and Specific Amplification of an Unknown Region of cDNA or genomic DNA in the Preparation of a Target DNA Fragment for Further Applications including Cloning and Sequencing.

* TaKaRa is the **first Licensee** possessing the PCR License in these various fields; Research, Forensics and Human Identity, Environmental Testing, Plant Diagnostics, Animal Diagnostics, Animal Identity Testing and Positive Trait Breeding, and Food Testing.

Code No. R015; for 20 Preparations

TaKaRa PCR *in vitro* Cloning Kit

Features:

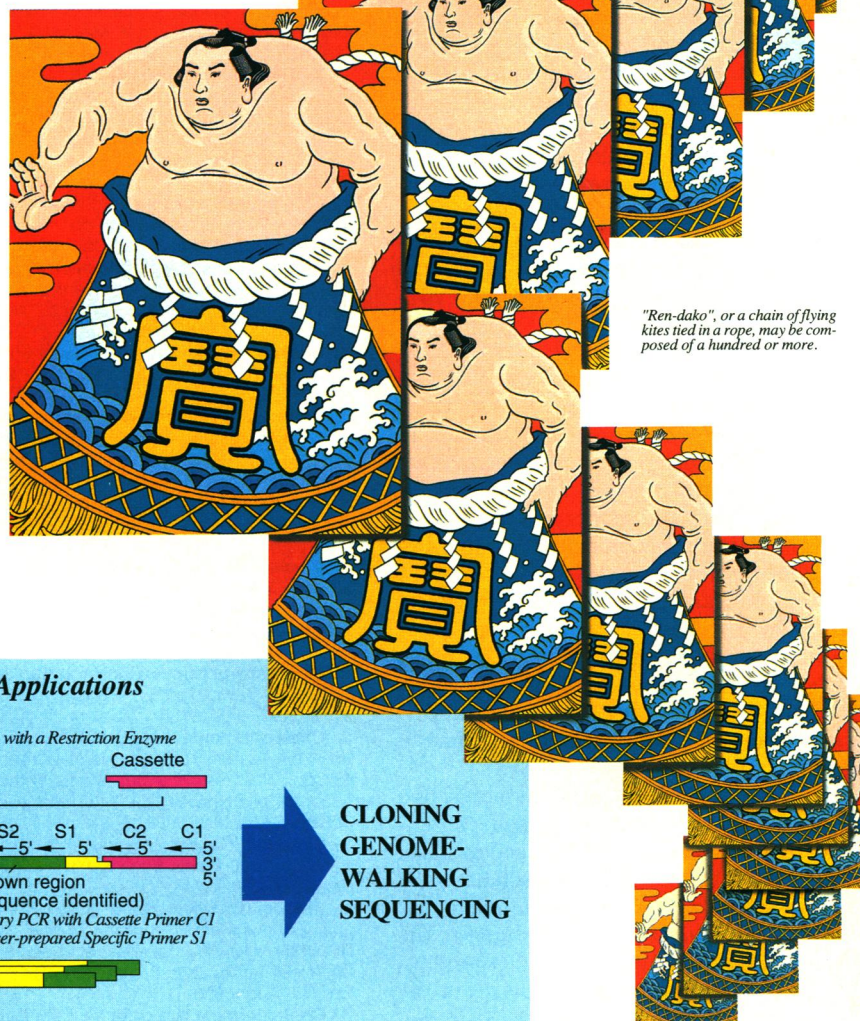
An Assortment of Six Variety Cassettes with One End Revealing a Restriction Site: Constructs various PCR genomic or cDNA libraries of up to six varieties of Cassettes which include either *EcoR* I, *Hind* III, *Pst* I, *Sal* I, *Xba* I or *Sau* 3A I.

Non-Phosphorylated 5'-Terminus of Cassettes and Two-Step PCR: Facilitates Pin-Point Amplification specific to a DNA fragment of interest.

Modified Single Specific Primer PCR in conjunction with Nested PCR: Generates a DNA fragment of interest in a significant copy number within a day through PCR for which only one user-prepared specific primer is required.

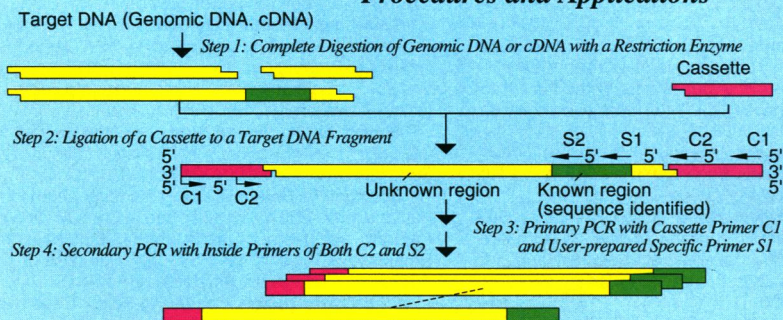
A Control Set Included in the Kit: Composed of *Hind* III digested Control Template, and related two Control Specific Primers in tandem, assures kit performance and provides more informative results.

TaKaRa Taq Included in the Kit: Achieves perfect and efficient PCR amplification from the PCR genomic or cDNA libraries.



"Ren-dako", or a chain of flying kites tied in a rope, may be composed of a hundred or more.

Procedures and Applications



**CLONING
GENOME-
WALKING
SEQUENCING**

POWER PCR products from TaKaRa are sold under licensing arrangements with Roche Molecular Systems and F. Hoffman - La Roche Ltd. and The Perkin-Elmer Corporation. Purchase of these products is accompanied by a license to use them in the Polymerase Chain Reaction (PCR) process in conjunction with an Authorized Thermal Cycler.



TAKARA SHUZO CO., LTD.

Biomedical Group
Otsu, Shiga, Japan
Tel: +81 775-43-7247
Fax: +81 775-43-9254

DISTRIBUTORS for More Information and Orders:

PanVera Corporation (USA and South America)

Tel: 608-233-5050 Fax: 608-233-3007
Toll Free: 1-(800) 791-1400

ITC Biotechnology GmbH (Germany)

Tel: (06221) 303907 Fax: (06221) 303511

CIS bio international (France)

Tel: (1) 69 85 73 90 Fax: (1) 69 85 73 65

CIS Diagnostici S.p.A. (Italy)

Tel: (0161) 912292 Fax: (0161) 912308

Cheng Chin Trading Co., Ltd. (Taiwan)

Tel: (02) 331-3111 Fax: (02) 382-2197

Protech Technology Enterprise Co., Ltd. (Taiwan)

Tel: (02) 381-0844 Fax: (02) 311-8524

Now You Can Add Molecular Level Imaging To Your Inverted Optical Microscope

You don't hear about major advances in established scientific techniques very often. But that's exactly what Explorer LifeSciences SPM™ means to cell and molecular biologists...the high-resolution, three-dimensional imaging of a scanning probe microscope combined with the capability and familiarity of an inverted optical microscope.

Add an Explorer LifeSciences SPM head and baseplate adapter to almost any inverted optical microscope...Zeiss, Nikon, Olympus and more. Visually position the SPM probe over the sample precisely where you want it. Now you're ready to produce images with lateral definition and quantitative height information at molecular resolution. Images of unparalleled accuracy made under true physiological conditions with as little as 50µl of solution. And you'll be able to monitor the integrity of your sample with your inverted optical microscope the entire time you're scanning.

But great images aren't all you'll get with Explorer LifeSciences SPM. For example, it's the only SPM with *One-Pass Imaging™*. That gives you up to eight

channels of data simultaneously over scan

areas to 130µm square and 12µm in the Z range.

To learn just how easy it is to add SPM capability to your laboratory, call us

today at 1-800-765-5067. Just tell us which inverted optical microscope you have and we'll have product information on its way to you fast.

The four images of polytene chromosome clusters show: visual positioning of the SPM probe tip (A); an optical microscope image (B); a 100µm atomic force microscope (AFM) image (C); a 50µm AFM image showing bands and interbands (D).

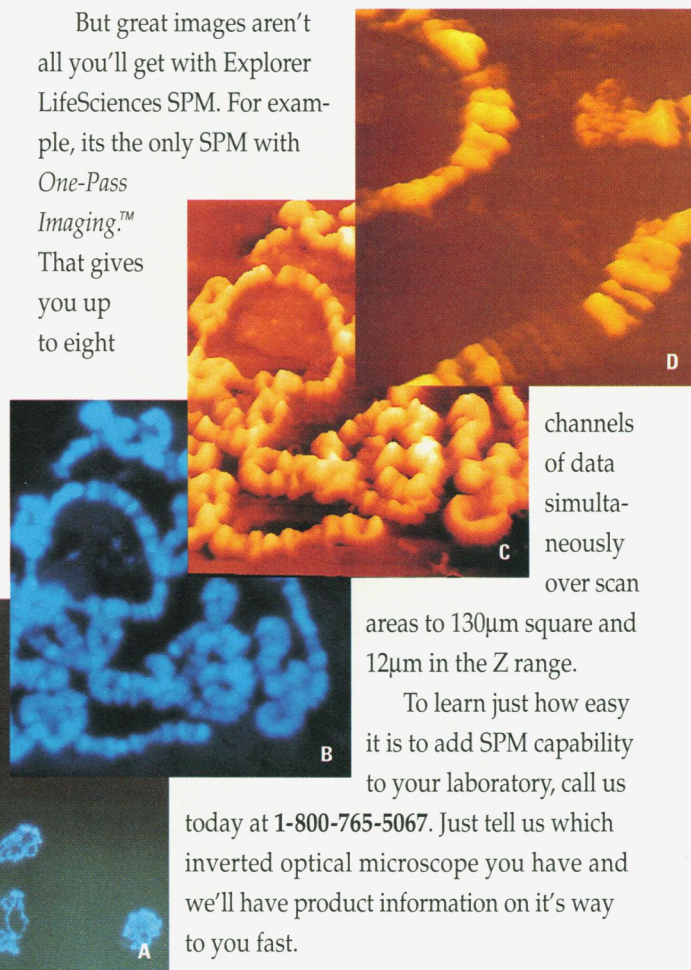
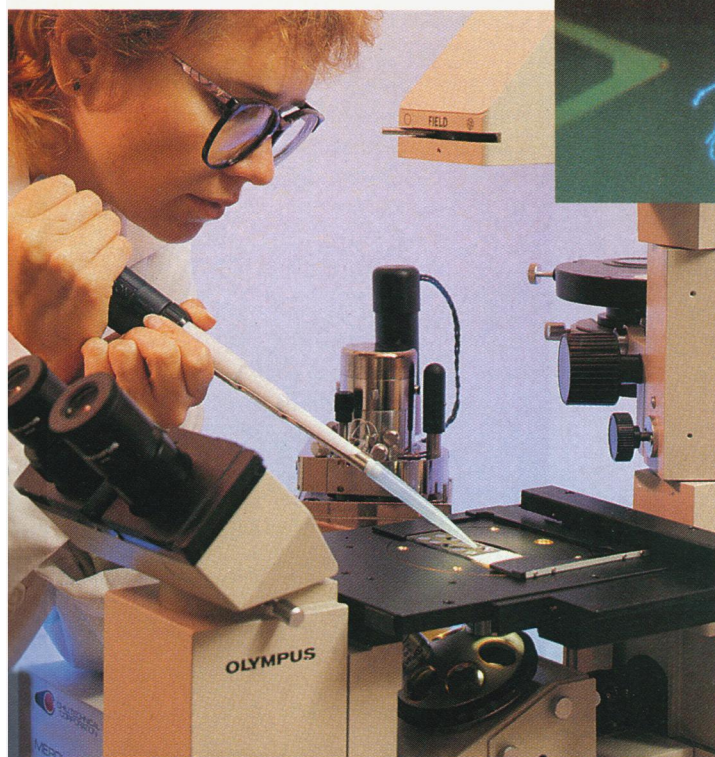
Explorer, Explorer LifeSciences SPM and One-Pass Imaging are trademarks of TopoMetrix. Other trademarks and registered trademarks are the property of their respective owners.



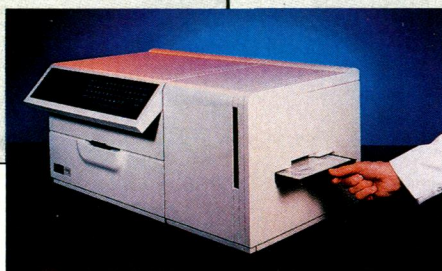
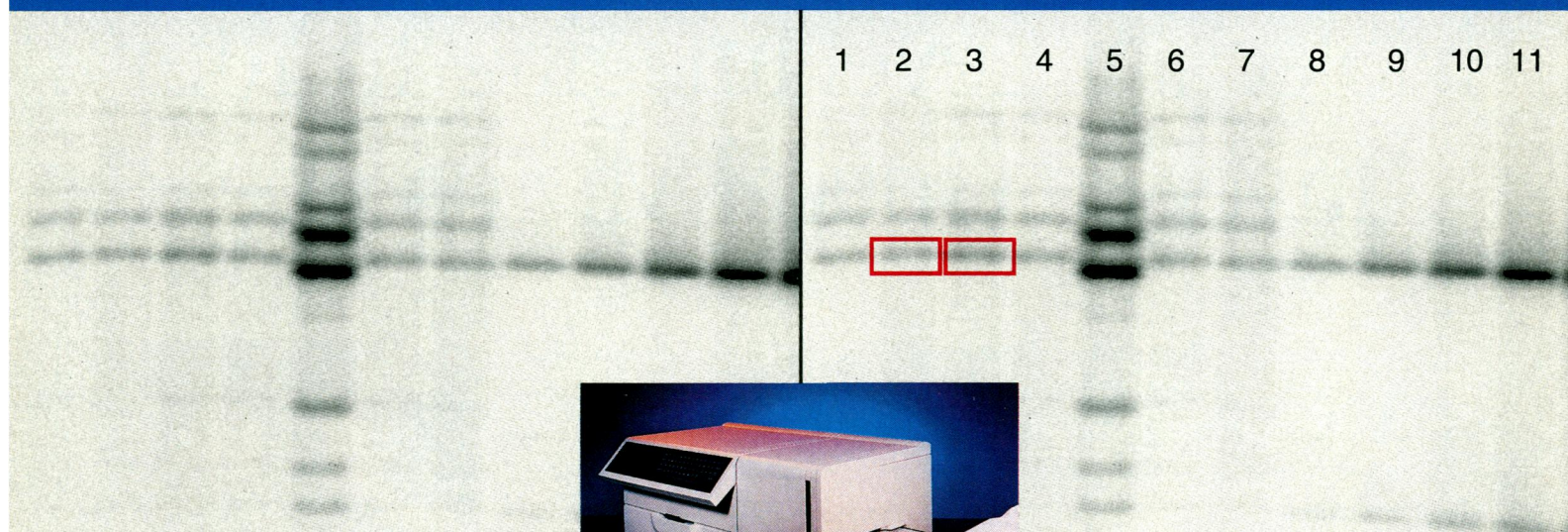
5403 Betsy Ross Drive, Santa Clara, California, 95054

Tel 408-982-9700, Fax 408-982-9751

Circle No. 30 on Readers' Service Card



Lane 2 is significantly different from lane 3?



*In this analysis, the band in lane 2 really is significantly different from lane 3.
(180.5 ± 2.6 cpm vs. 311.4 ± 3.3 cpm)*

Prove it.

It's a fact. The peer review journals you want to reach demand consistent, quantitative data. The practice of identifying band presence using "eyeball" assessments for your analysis is simply not acceptable.

That's why, to achieve fast, accurate, quantitative results, you need control of the most sensitive and reliable bench-top imager in the world—right at your fingertips.

The AMBIS 4000.

The world's most trusted imager.

To obtain reliable data quickly and cost-effectively, there's no better way than direct quantitative imaging. The Scanalytics AMBIS 4000 gives you consistent, accurate quantitation with automatic nuclear counting statistics—and it's faster and more reliable than any other method.

With over 500 AMBIS installations around the globe, the AMBIS 4000 has proven to be the logical choice for

professionals who can't accept the limitations found with film densitometers and phosphor imagers.

Using the AMBIS 4000 is just like using a liquid scintillation counter. You can even load as many as 10 samples, then easily program the AMBIS 4000 to scan each sample overnight, or over the week-end, unattended. When you return, your samples are ready to be analyzed. And the AMBIS 4000's automatic sample loader makes it ideal for multiple users and high-volume applications.

Powerful Windows™-based software.

You can quickly analyze the data you've collected with Scanalytics software modules. It's easy-to-use and includes high resolution graphics capabilities that let you generate publication-quality images. Plus you can export images and data to desktop publishing programs, spreadsheets, and word processors.

For more information on the AMBIS 4000—the world's most reliable direct quantitative imager—call or write today.



Scanalytics

A Division of CSPI

Scanalytics/CSPI
40 Linnell Circle
Billerica, MA 01821
800-325-3110
508-663-7598
fax: 508-663-0150
e-mail: scan_sales@cspi.com

Oncogene Research Products

Monoclonal Antibodies

Introducing a diverse line of high quality monoclonal antibodies for today's leading researcher, now available from Wako.

Anti Human bFGF and aFGF

- Used for ELISA, western blotting, and as affinity ligands.
- Acidic clones (AF1-52, AF1-81, AF1-114, 1C10)
- Basic clones (52, 78, 98, 3H3)
- No cross reactivity; known recognition sites and neutralization.

Anti Phosphotyrosine

- Used for ELISA, western blot, and histostaining.
- Specific for tyrosine residues in transformed and growth factor treated cells and for molecular targets of tyrosine kinases in the cellular transduction process.

Anti src Family gene products

- Anti Human gene products (c-lyn, c-fgr, c-fyn, c-yes)
- Used for immunohistochemistry, immunoprecipitation or western blotting

For detailed information sheets please call the number listed below.

Wako

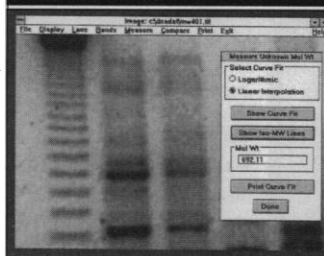
Wako BioProducts

Wako Chemicals USA, Inc.
1600 Bellwood Road, Richmond, VA 23237
Telephone: (804) 271-7677 Facsimile: (804) 271-7791
(800) 992-9256

Circle No. 38 on Readers' Service Card

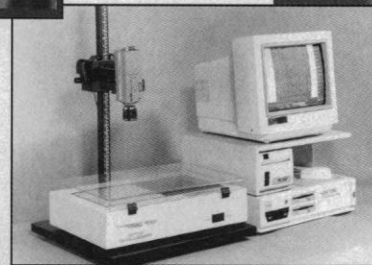
VISUALIZE • DOCUMENT • ANALYZE

Gel Documentation. Big Power. Low Price.



Analysis Software For:
Coomassie Blue Stain
Silver Stain
Ethidium Bromide Stain
Sequence Gels
2D Gels
Slot Blot / Dot Blot
Westerns

Features:
\$0.08 Per Print - Low Cost
Publication Quality
Zoom, Pan, Rotate Images
Security Log-on For Multi-users
PC and MAC Compatible
Image Files
Color Image Enhancements
Network and Optical Drive
Image Archiving
Optional Unique Patented
Fluorescent Darkroom



GDS Gel Documentation
and Software Analysis Systems

UVP

UVP, INC.
FAX 909 946-3597
In U.K. Call 0223 420022

Call for a free demonstration now! • 800 452-6788

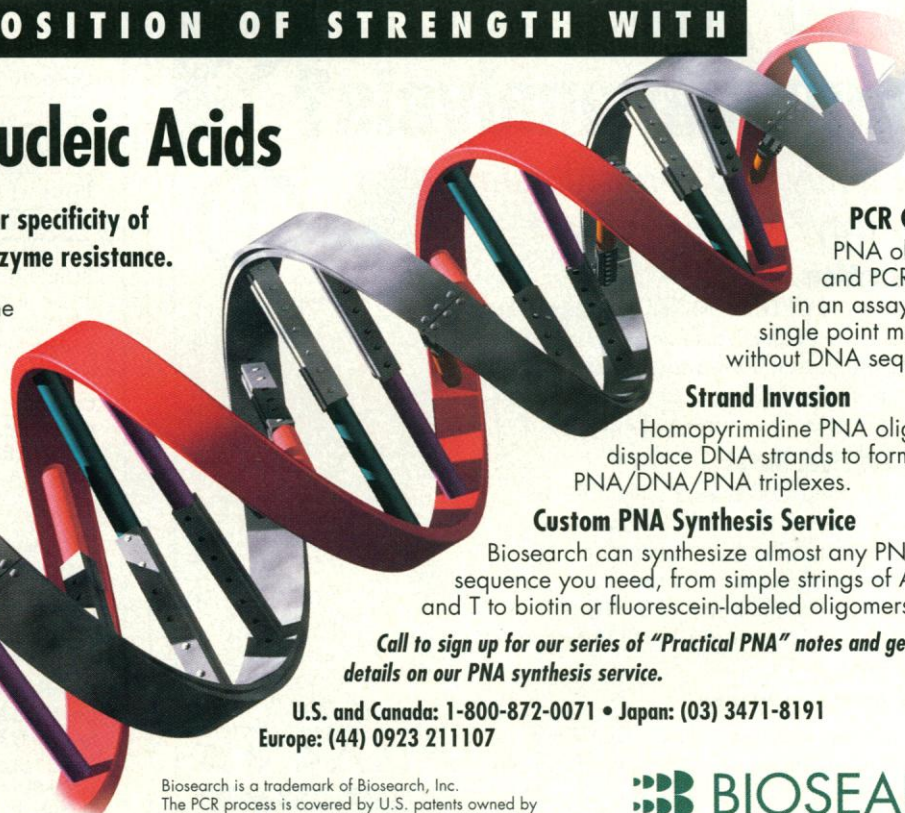
Circle No. 9 on Readers' Service Card

TAKE A POSITION OF STRENGTH WITH

Peptide Nucleic Acids

Stronger binding. Greater specificity of interaction. Increased enzyme resistance.

These are just a few of the strengths of Peptide Nucleic Acids (PNA), new DNA analogs that combine a unique polyamide backbone with the four purine and pyrimidine bases. With the power of PNA behind you, you're in a position to forge ahead on newly developed applications — applications that are impossible with DNA.



PCR Clamping

PNA oligomers and PCR team up in an assay to detect single point mutations — without DNA sequencing.

Strand Invasion

Homopyrimidine PNA oligomers displace DNA strands to form PNA/DNA/PNA triplexes.

Custom PNA Synthesis Service

Biosearch can synthesize almost any PNA sequence you need, from simple strings of A, C, G, and T to biotin or fluorescein-labeled oligomers.

Call to sign up for our series of "Practical PNA" notes and get the details on our PNA synthesis service.

U.S. and Canada: 1-800-872-0071 • Japan: (03) 3471-8191
Europe: (44) 0923 211107

Biosearch is a trademark of Biosearch, Inc.
The PCR process is covered by U.S. patents owned by Hoffmann-La Roche, Inc. and F. Hoffmann-La Roche Ltd.
Copyright © 1994 Biosearch, Inc., Bedford, MA

BIOSEARCH
Subsidiary of Millipore

Circle No. 37 on Readers' Service Card

FLUORESCENCE POLARIZATION AT LOW COST

FPM-1™ FPM-1™ SYSTEM FLUOROLITE FPM-2™

- SENSITIVE ■ FAST
- PRECISE ■ EASY

INSTRUMENTATION FOR PERFORMING

- DNA PROBES
- DNA/PROTEIN BINDING
- CELL RECEPTOR/LIGAND BINDING
- THERAPEUTIC DRUG ANALYSIS
- ENZYME/SUBSTRATE INTERACTIONS
- PROTEASE ASSAYS
- ANTIBODY/ANTIGEN INTERACTIONS
- DRUG/RECEPTOR INTERACTIONS
- HIGH VOLUME THROUGH-PUT SCREENING (FLUOROLITE FPM-2 ONLY)
 - 96 WELL FORMAT
 - >15,000 SAMPLES PER DAY



FOR FURTHER DETAILS CALL, FAX OR WRITE TO
JOLLEY CONSULTING AND RESEARCH, INC.

34469 N. CIRCLE DR., ROUND LAKE, IL 60073 USA
708-548-2330 ■ USA & CANADA 1-800-685-0401
■ FAX 708-548-2984

Circle No. 13 on Readers' Service Card

SAVE YOUR COPIES OF Science



These custom-made, imprinted cases and binders are ideal for protecting your valuable *Science* copies from damage. Each binder or case holds one volume of *Science*, or 13 weekly issues—order four binders or cases to hold a complete year of issues. Constructed from reinforced board and covered with durable, leather-like red material and stamped in gold, the cases are V-notched for easy access; binders have a special spring mechanism to hold individual rods which easily snap in.

Quantity	Cases	Binders
One	\$ 7.95	\$ 9.95
Two	\$14.95	\$18.95
Four	\$27.95	\$35.95

SCIENCE

Jesse Jones Industries, Dept. SCE
499 East Erie Avenue
Philadelphia, PA 19134

Enclosed is \$_____ for _____ Cases; _____ Binders. Add \$1 per case/binder for postage & handling. Outside USA \$2.50 per case/binder (US funds only). PA residents add 7% sales tax.

Print Name _____

Address _____

City _____ No P.O. Box Numbers Please

State/Zip _____

CHARGE ORDERS (Minimum \$15): Am Ex, Visa, MC, DC accepted. Send card name, #, Exp. date.

CALL TOLL FREE 7 days, 24 hours
1-800-825-6690
Outside the US call 215-425-6600

— SATISFACTION GUARANTEED —

How do you do survival analysis?

Are you analyzing survival data the hard way? Try our way.

Start with StatView...

StatView® is the only Macintosh stats package that combines data management, data analysis, graphing, drawing, and presentation into a single easy-to-use solution. From data entry to finished reports, StatView saves you time and effort.

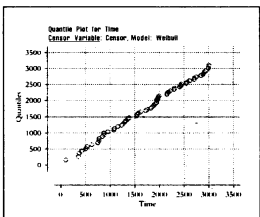
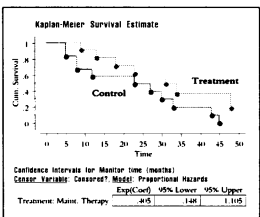
...now add Survival Tools!

Survival Tools is the latest in a series of drop-in extensions to StatView. Survival Tools incorporates a complete suite of survival analyses into StatView — seamlessly. Survival Tools becomes part of StatView, so you'll enjoy all the benefits of StatView's award-winning interface, full presentation tools, and templates.

It's our way or the hard way

You can analyze the hard way, or the StatView way — the choice is up to you. For more information on StatView, Survival Tools, and other add-on products, call us at 1-800-666-STAT.

© 1994 Abacus Concepts, Inc., 1918 Bonita Avenue, Berkeley, CA 94704-1014; tel: 510-540-1949; fax: 510-540-0260. StatView is a registered trademark of Abacus Concepts, Inc. All other brands are property of their respective holders.



ABACUS
CONCEPTS
THE SIGNIFICANT DIFFERENCE™

Circle No. 43 on Readers' Service Card

**AAAS
SCIENCE AND
TECHNOLOGY
POLICY
YEARBOOK
1993**

**ALBERT H. TEICH
STEPHEN D. NELSON
CELIA MCENANEY, EDITORS**

Published by the American
Association for the Advancement
of Science

The past year witnessed great tumult and many changes in S&T policy. The *AAAS Yearbook* is an authoritative collection of articles that describe and helped shape those changes. Included are papers from the annual AAAS S&T Policy Colloquium and the 1993 AAAS Annual Meeting, together with excerpts from influential reports by the National Academies of Sciences and Engineering, the Carnegie Commission, the Senate Appropriations Committee, and the House Task Force on the Health of Science. The five parts of the book cover technology policy, science policy, defense conversion, manufacturing research, and environmental R&D.

1994; 424 pages; index; softcover;
ISBN 0-87168-534-5
\$19.95 (AAAS member price
\$15.95)

Mail your order to:
AAAS Distribution Center
PO Box 521, Annapolis Junction
MD 20701

If you prefer to order by phone
(VISA/MasterCard only), call
1-800-222-7809
(8:30am-5:00pm ET)
Fax orders to 301-206-9789

PFANSTIEHL

**We've added something new:
Thioglycosides.**

Thioglycosides are a convenient source of the glycosyl donors needed for complex carbohydrate synthesis. They are highly crystalline and stable to a wide range of blocking/deblocking conditions. Thioglycosides can easily be converted to glycosyl halides for use under Koenigs-Knorr conditions or activated directly with a variety of reagents. Stereochemical control of the newly-formed glycosidic bond can be achieved by the appropriate group on C-2. Data sheet available.

PFANSTIEHL LABORATORIES, INC.

The source for carbohydrate chemistry

1219 Glen Rock Avenue Waukegan, IL 60085 0439
Tel.: 1-708 623-0370 Toll Free: 1-800 383-0126
FAX: 708 623-9173
68-W

MAKING THINGS WORK

Circle No. 42 on Readers' Service Card

Applications Invited

Conference on Ethical and Legal Aspects of Computer and Network Use and Abuse

The National Conference of Lawyers and Scientists, a joint organization of the American Association for the Advancement of Science and the American Bar Association is sponsoring a two-day invitational meeting near Washington, D.C., in early October 1994. The meeting will seek to develop a policy agenda on issues related to ethical and legal aspects of behavior on computer networks.

Attendance is limited to 40 people representing a range of disciplines, institutions, backgrounds, and perspectives, a number of whom will be selected in response to applications. Travel and expenses will be paid for those participants who need it. All participants will be required to prepare a short (apx. 1000 word) paper for circulation to attendees prior to the meeting and inclusion in the conference report.

Persons interested in being considered for participation should contact **Deborah Runkle, AAAS Directorate for Science and Policy Programs**, 1333 H St., NW, Washington, DC 20005. **Telephone: 202-326-6600. Fax: 202-289-4950. E-mail: drunkle@aaas.org** for further information and application procedures. **Deadline for applications: August 19, 1994.**

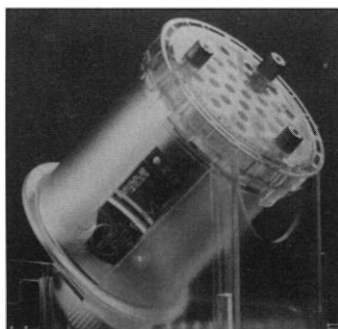
Applications from women, disadvantaged minorities, and persons with disabilities are especially welcome.

Image Processing System

Dimple is an interactive image processing system for the earth sciences. Features include image analysis (histogram, cross plots, linear transect, and statistical analysis), image enhancement (filters, sharpening, smoothing, contrast enhancement, and pseudo-coloring), registration and rectification using ground control points or mathematical models, multispectral analysis (supervised and unsupervised classification, training area analysis, principal components, and canonical analysis), image transformations (color composites, three-dimensional plots, and contour modeling), and more. It requires a Macintosh running system 6.0.5 or later, 256 colors, a hard disk, and minimum 4 megabytes of memory. **Cherwell Scientific.** Circle 140.

Monoclonal Antibody Bioreactor

The miniPERM is an efficient bioreactor for culturing hybridoma cells for the production of monoclonal antibodies (mAbs). The mAbs produced by the miniPERM are identical to those produced by other methods. It can produce cell densities greater



than 10^7 cells/ml, making it an affordable batch production system for screening purposes. One unit can replace six standard roller bottles or several mice. The high product concentration of the miniPERM can help cut production costs by avoiding the need for concentration before

screening. The high purity of the output eliminates the need for costly purification before screening. **Heraeus Instruments.** Circle 141.

Gene Conservation Analysis Products

A line of evolutionary relatedness products allows the user to determine if the locus defined by a probe or primer pair exists in other species in order to determine the conservation of the gene sequence being analyzed. DNA from 30 different species is currently available. There are four species groups to choose from: Genetic Model System (11 species), the Mammalian Group (11 species), the Primate Group (6 species, 11 individuals), and the Selectable Set (the user can choose 11 species). There are three product formats: BIOS premade blots contain genomic DNA from each designated species digested with a restriction enzyme specified by the researcher. Southern DNAs are high molecular weight genomic DNAs for researchers who want to make their own Southern blots. PCRable DNAs are high molecular weight genomic DNAs designed to ensure the highest level of polymerase chain reaction amplification. **BIOS Laboratories.** Circle 142.

Antibodies

Monoclonal and polyclonal antibodies are available to peripherin, a member of the intermediate filament family. Peripherin is a stable component of neurons, and peripherin antibodies therefore provide sensitive, reproducible and specific cell type markers for neurons throughout the nervous system. The antibodies

work on protein immunoblots and frozen sections of tissues of all mammals tested to date, including human, rat, and mouse. **CHEMICON International.** Circle 143.

An extensive line of signal transduction antibodies and antigens includes the specificities: annexins (I-VII), ATPase (both calcium and sodium potassium), caveolin, G proteins, MAP kinase, protein kinase A, protein kinase C, calmodulin kinase II, paxillin, phosphotyrosine, protein kinase, and serine-threonine kinase. **BIODESIGN International.** Circle 144.

Antibodies to markers of metastasis such as urokinase plasminogen activator, cathepsins (B, D, and L), and nuclear matrix proteins including lamin B are now available. **Oncogene Science.** Circle 145.

RNA and DNA Isolation Reagents

RNA NOW, DNA NOW, and AGRisol (for plant RNA) reagents are now free of hazardous phenol for safer isolation of RNA and DNA. The reagents do not require special ventilation and can be disposed of down the sink. The 60-min protocol for RNA or DNA isolation includes sample disruption in the appropriate reagent followed by the addition of chloroform and subsequent centrifugation to effect aqueous-organic phase separation of the nucleic acid of interest. **BIOGENTEX.** Circle 146.

Gel Scanner System

The Intelligent Quantifier Gel Scanner System analyzes a wide variety of electrophoresis gels and



membranes quickly, easily, and economically. The system consists of a powerful computer, a 1200-dpi scanner, and Bio Image software, priced under \$20,000. **Bio Image.** Circle 147.

Serum-Free Culture Kits

Serum-Free Medium Kits aid growth and maintenance of targeted cell types. The Fibroblast Medium Kit is suitable for maintaining fibroblast cultures or establishing primary cultures. The Keratinocyte Medium Kit and the Melanocyte Medium Kit support the proliferation of normal human cells. The Endothelial Medium Kit supports the growth of endothelial cells from a variety of species including human, bovine, rabbit, dog, mouse, and rat. **Sigma Cell Culture.** Circle 148.

Literature

From Cells to Sequences within Hours: A Guide to the Handling of PCR Products and Templates is a 30-page compendium of various techniques and methods in polymerase chain reaction (PCR). Topics covered include ways to prepare DNA and RNA, transcription of RNA into complementary DNA, choice of stable nucleotides, cloning, purification, expression, sequencing, and separation techniques of the amplified DNA. **Pharmacia Biotech.** Circle 149.

ATCC Quarterly Newsletter, free to researchers in the life sciences, announces new American Type Culture Collection (ATCC) catalogs, discusses news and events at ATCC, and lists new cultures available. **American Type Culture Collection.** Circle 150.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

Science

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

- **Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Advertisements must be submitted in writing.
- **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.
- **Mail, FAX, or E-Mail materials to:**
Science Classified Advertising
1333 H Street, N.W., Room 814
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816
Internet E-Mail:
science_classifieds@aaas.org
- **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.
- **Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Annemarie Vis at +44 223 302 067 (telephone) or +44 223 302 068 (FAX).
- **Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.
- **Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. about fractional display ads (all ads 1/2 page and larger), contact:

Recruitment Advertising
Deborah Cummings
Telephone: 202-326-6541

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

European Recruitment Advertising
Telephone: +44 223 302 067
FAX: +44 223 302 068

CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

POSITIONS OPEN

NEUROBIOLOGIST ASSISTANT/ASSOCIATE PROFESSOR

The Department of Neurobiology and Anatomy invites applications for a tenure-track faculty position. Applicants should have postdoctoral experience, a strong record of scholarship. The Department is seeking an outstanding individual who is using modern systems, cellular, or molecular approaches in an area of research that complements that of current faculty. Particular preference will be given to those individuals interested in the mechanisms by which the CNS combines and integrates information from the different sensory modalities. Research interests of the faculty include multisensory integration, sensory systems of development and organization, retinal biology, neurodegeneration, neuronal and synaptic plasticity, neuron-glia interactions, aging, programmed cell death, trophic factors, and axonal growth and projections. The Bowman Gray School of Medicine of Wake Forest University offers a unique opportunity to interact with a broad range of neurobiologists that comprise part of a strong and active interdisciplinary Ph.D. Program in Neuroscience. Send curriculum vitae, description of research and three letters of recommendation to: **Dr. Barry E. Stein, Chairman of the Department of Neurobiology and Anatomy, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27157-1010. Affirmative Action/Equal Opportunity Employer.**

ASSISTANT AND ASSOCIATE PROFESSOR VERTEBRATE DEVELOPMENTAL BIOLOGY

Applications are invited for a tenure track position in the Department of Biological Structure at the University of Washington School of Medicine. Applicants should have a Ph.D. or M.D. degree with at least three years of postdoctoral experience. The successful candidate will be expected to establish a vigorous, externally funded research program in the area of **vertebrate development** and participate in graduate education in this field. Applicants should also be willing to contribute to team-taught courses in human anatomy/embryology or neuroscience for health professionals. Candidates should send curriculum vitae, a description of research interests, and three letters of reference by September 15, 1994, to: **Dr. Thomas Reh, Search Committee Chair, Department of Biological Structure, SM-20, University of Washington, Seattle, WA 98195. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

ENVIRONMENTAL STUDIES POSITIONS

Mount Holyoke College seeks to fill two separate one-semester visiting professor positions in environmental studies: one each for the fall 1995 and fall 1996. Candidates should be accomplished senior scholars in areas related to environmental studies and may be from the natural sciences, social sciences or humanities. The specific field is not as important as a strong interest in interdisciplinary approaches to environmental problems and an ability to communicate with other scholars across disciplines. The visiting scholar will teach the senior seminar in environmental studies and take part in a lively program of campus talks and collegial discussion devoted to environmental studies. Opportunities for interaction with faculty in the other colleges in the Five-College area (Amherst, Smith, UMass, and Hampshire) are also available. *Mount Holyoke is committed to cultural diversity and is an Equal Employment Opportunity and Affirmative Action employer. Women and minorities are especially encouraged to apply.* The evaluation of applications will begin on October 1, 1994. Send a letter of application, curriculum vitae, and letters of reference to: **Jens Christiansen, Chair, Environmental Studies Program, Mount Holyoke College, South Hadley, MA 01075.**

The department of Anatomy at Nova Southeastern University invites applications for two full-time positions open at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Applicants will be considered beginning August 1, 1994. The candidates must have a Ph.D. or equivalent degree and teaching experience in human anatomy. The primary duties will be to assist in the teaching of human gross anatomy to students in the medical, optometry and allied health programs.

Please send curriculum vitae and a list of three references to: **Gerald R. Conover, Ph.D., Department of Anatomy, Health Professions Division, Nova Southeastern University, 1750 N.E. 167th Street, North Miami Beach, FL 33162-3017.**

POSITIONS OPEN

ASSISTANT PROFESSOR TENURE-TRACK DEVELOPMENTAL NEUROBIOLOGY UCLA

Applications are being solicited for two tenure-track positions in the UCLA Brain Development and Mental Retardation Research Center. Applicants must have 2 or more years of postdoctoral experience and are expected to establish an independent research program. The Center is seeking outstanding scientists with a background in cellular and molecular neurobiology and an interest in brain development and related dysfunctions. Candidates with a track record in the molecular and/or cellular neurophysiological analyses of mammalian CNS development are particularly encouraged to apply. Joint appointment in a basic science department relevant to the candidate's background will be possible. Send applications, together with a statement about present and future research interests, three most significant reprints and the names of three referees to: **Faculty Search Committee, c/o Dr. Jean de Vellis, Director, Brain Development and Mental Retardation Research Center, 68-225 NPI, UCLA, 760 Westwood Plaza, Los Angeles, CA 90024-1759. An Equal Opportunity Employer.**

ASSISTANT/ASSOCIATE PROFESSOR MOLECULAR BIOLOGY/TOXICOLOGY

The Division of Toxicology, Department of Pharmacology and Toxicology, University of Arkansas for Medical Sciences (UAMS) is recruiting a full-time tenure-track faculty position to join the growing division at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Requirements include: a Ph.D. or equivalent degree, postdoctoral training, and a productive record of quality research. Applicants should be utilizing molecular approaches to solve basic problems in any area of toxicology or pathophysiology. Individuals interested in neurotoxicology are encouraged to apply. Applicants are expected to develop an independent research program with extramural funding. Individuals applying at the Associate Professor level should have extramural funding. Excellent opportunities are available for collaborative research with other UAMS faculty and adjunct faculty at the National Center for Toxicological Research located nearby. A competitive start-up package, and research space in a newly constructed research building are available. Send curriculum vitae, a brief research prospectus and the names of three references to: **Rick G. Schnellmann, Ph.D., Division of Toxicology, Slot 638, University of Arkansas for Medical Sciences, Little Rock, AR 72205, Telephone: (501) 686-8883, FAX: (501) 686-8970. Applications received before September 1, 1994, are assured of consideration. UAMS is an Equal Opportunity/Affirmative Action Employer.**

ASSOCIATE PROFESSORS/PROFESSORS DEVELOPMENTAL BIOLOGY MOLECULAR CELL BIOLOGY

The Institute of Biological Sciences at the University of Tsukuba, Tsukuba Science City, Japan, invites applicants for two tenure-track positions for associate professors/full professors with expertise in (1) molecular and genetic aspects of developmental biology and (2) molecular biology of the nucleus and organelle(s). The successful applicants are expected to develop their own research as well as to teach graduate and undergraduate courses in general biology and developmental biology, or molecular and cellular biology, respectively, starting on 1 April 1995. Salary will be in line with the regulations set out for Faculty of a Japanese National University, depending on experience.

Applicants should send a letter describing their interest in the position, curriculum vitae, a list of published papers, and reprints of 5 recent representative works and arrange for the delivery of three referees' reports by 7 October 1994, to: **Professor Tamio Hirabayashi, Chair, Institute of Biological Sciences, University of Tsukuba, Tsukuba Science City 305, Japan.** General enquiries are welcome to: **FAX: 81-298-53-6649; Email: tamio@sakura.cc.tsukuba.ac.jp.** The appointment will be made independent of sex, religion, or nationality, but ability to conduct classes in Japanese is preferable.

Several **RESEARCH POSITIONS** available in DNA Probe Development with this Maryland based company. B.S., M.S., Ph.D. in molecular biology preferred. Seeking extensive experience with Polymerase Chain Reaction technique, DNA sequencing, enzyme preparation, bioformulation, recombinant reagent development. Excellent salary/benefits. Send résumés: **Unit 142, 532 Old Marlton Pike, Marlton, NJ 08053.**

POSITIONS OPEN

ENDOWED PROFESSORSHIP IN CARDIOVASCULAR DISEASE TULANE UNIVERSITY

The Cardiology Section of Tulane University is seeking applications and nominations for the position of Professor and holder of the Sidney and Marilyn Lassen Chair in Cardiovascular Disease. Both physicians and scientists with a record of academic excellence in the cardiovascular field commensurate with an endowed academic appointment will be considered. Applicants should send curriculum vitae and 3 letters of reference to: **Andrew J. Buda, M.D., Robert Morgandanes Professor of Medicine, Chief, Section of Cardiology, Department of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112-2699. FAX: (504) 587-4237. Affirmative Action/Equal Opportunity Employer. Applications accepted until position filled.**

FACULTY POSITIONS. The Department of Microbiology and Immunology, and the Program in Molecular Medicine of the University of California, San Francisco, School of Medicine, are seeking outstanding candidates to fill two tenure-track or tenured positions. In addition to departmental affiliation, the positions include membership in the Program in Biological Sciences, the excellent campus-wide graduate program. The search will consider candidates with demonstrated creativity and research productivity in molecular or cellular immunology. Rank will be commensurate with level of experience. Interested candidates should send curriculum vitae and a statement of future research plans, and have three letters of recommendations sent by September 1, 1994, to: **Microbiology Search Committee, c/o Joan Jenkin, Department of Microbiology & Immunology, Box 0414, University of California, San Francisco, San Francisco, CA 94143. UC is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

FACULTY POSITIONS IN MOLECULAR MICROBIOLOGY AND MOLECULAR GENETICS TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY

The B. Rappaport Faculty of Medicine at the Technion invites applications for tenure-track positions at the senior lecturer to professor level in all areas of Molecular Microbiology. Applications are also invited for tenure-track positions at the senior lecturer to professor level in Molecular Genetics, preferably human or mammalian genetics. Applicants are expected to conduct independent research of high quality and to teach undergraduate and graduate courses in their areas of expertise. Please submit curriculum vitae, a brief statement of research directions and names of three references to: **Professor Peretz Lavie, Dean, B. Rappaport Faculty of Medicine, Technion, P.O. 9649, Bat Galim, Haifa 31096 Israel.**

FACULTY POSITIONS— TULANE UNIVERSITY

As part of an ongoing environmental restoration and waste management research program, Tulane University School of Public Health and Tropical Medicine invites applications for several positions at the ASSISTANT or ASSOCIATE PROFESSOR rank in the Department of Environmental Health Sciences. The positions are initially funded as research faculty appointments with possibility of conversion to tenure track. Research will be carried out in the newly established ENTERGY Spatial Analysis Research Laboratory, part of the Tulane Center for Bioenvironmental Research. Openings in the following areas are available immediately: **(Position 1)** Risk Assessment/Radiation Effects; **(Position 2)** Exposure Assessment; **(Position 3)** Ecological Risk Assessment; **(Position 4)** Environmental/Resource Economics. Applicants should hold an earned doctorate in environmental toxicology, risk assessment, economics, ecology, radiation health, or related disciplines. Experience with decision analysis, geographic information systems (GIS), and modeling is desirable. Review of applications will continue until the positions are filled, but to insure consideration for the positions, materials should be submitted by August 15, 1994. Applicants should designate the position number for which they are applying and send their curriculum vitae, brief description of research interests, 3 samples of written work, and arrange for three letters of reference to: **William A. Toscano, Jr., Ph.D., Chair, Environmental Health Sciences Department, Tulane University School of Public Health and Tropical Medicine SL-29, 1430 Tulane Avenue, New Orleans, LA 70112-2699.**

POSITIONS OPEN

FACULTY POSITION FOR VIROLOGIST

The Department of Neurology of the Johns Hopkins University School of Medicine seeks applications for a tenure-track position at the level of INSTRUCTOR, or ASSISTANT or ASSOCIATE PROFESSOR. Applicants must have a relevant Ph.D. or M.D. degree and at least 2 years of postdoctoral training plus experience in molecular biology and retrovirology. Candidates will have an opportunity to collaborate with an ongoing project focusing on the neurological manifestations of AIDS and to develop an independent research program. Send curriculum vitae, description of research experience and proposed research, and names/addresses of 3 references to: **Dr. Richard T. Johnson M.D., Chairman, Department of Neurology, Johns Hopkins Hospital, 600 N. Wolfe St., Baltimore, MD 21287-7609. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION Memorial Sloan-Kettering Cancer Center

The Program in Molecular Pharmacology and Therapeutics invites applications for tenure-track positions at the ASSISTANT or ASSOCIATE MEMBER level. We are seeking innovative individuals with strong research accomplishments and outstanding promise, who will use modern molecular and biochemical approaches to address problems of pharmacological relevance.

Applicants should have a Ph.D. and/or M.D. degree, a strong postdoctoral education, and a commitment to excellence in research. MSKCC offers a unique and exciting research environment and will provide generous start-up support. By Oct. 1, 1994, candidates should send their curriculum vitae as well as a description of career goals, research objectives and the name of three scientists who can evaluate the applicants' accomplishments and potential to: **Joseph R. Bertino, M.D., Program Chairman, Molecular Pharmacology and Therapeutics Program, Memorial Sloan-Kettering Cancer Center—Box 78, 1275 York Avenue, New York, NY 10021. Memorial Sloan-Kettering Cancer Center is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for research on the cell biology of the growth of neuronal processes. Projects involve the use of video microscopy combined with biochemical and molecular biological techniques. Background in neurobiology and/or cell biology preferred. Send curriculum vitae, statement of research experience and interests, and names of three references to: **Dr. Daniel J. Goldberg, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032. Equal Opportunity/Affirmative Action Employer.**

TWO POSTDOCTORAL POSITIONS are available to study: 1) Regulation of PKCs and PKC binding proteins in tumor promotion (See: *JBC* 268:6858 (1993)); 2) Domain mapping and protein interaction of a novel diacylglycerol kinase. Please send curriculum vitae, a statement of research interests and experience, and the names and addresses of three references to: **Dr. Susan Jaken, c/o Personnel Department, W. Alton Jones Cell Science Center, 10 Old Barn Road, Lake Placid, NY 12946. Affirmative Action/Equal Opportunity Employer.**

THE UNIVERSITY OF UTAH AND THE HUNTSMAN CANCER INSTITUTE FACULTY POSITIONS IN THE MOLECULAR BIOLOGY AND GENETICS OF CANCER

The Health Sciences Center at the University of Utah seeks tenure-track faculty candidates at the ASSISTANT or ASSOCIATE PROFESSOR level for multiple positions in the Department of Cellular, Viral and Molecular Biology. The positions are available immediately and will be supported by the new Huntsman Cancer Institute and its programs in breast, prostate, colon and lung cancer.

The successful applicant will have demonstrated research excellence in the molecular biology and genetics of cell systems. Preference will be given to applicants committed to the exploration of human cancer in such fields as signal transduction, cell cycle, cell adhesion, cytoskeletal regulation, cell differentiation and genomic stability.

The University is an Equal Opportunity/Affirmative Action Employer. Women, minority and international candidates are encouraged to apply. Letters of interest, curriculum vitae, and names of three references should be sent to: **Ray White, Director, Huntsman Cancer Institute and Chairman, CVMB Department, University of Utah, Bldg. 533, Suite 7410, Salt Lake City, UT 84112.**

POSITIONS OPEN

FACULTY POSITION MACROPHYTE ECOLOGY

The Rosenstiel School of Marine and Atmospheric Science, University of Miami, invites applications for a tenure-track position at the ASSISTANT to FULL PROFESSOR level in the area of marine or estuarine macrophyte ecology and/or physiology. Preference given to candidates with both experimental and community modeling skills, experience in warm temperate or tropical ecosystems, demonstrated ability in research, and strong interest in teaching. Responsibilities include establishing a strong, externally funded research program, preferably focused on ecosystems of South Florida/Caribbean, directing graduate students, and teaching introductory and advanced graduate courses. Applicants should forward curriculum vitae, statement of research and teaching interests, and names of references to: **Macrophyte Search Committee, Division of Marine Biology and Fisheries, RSMAS, 4600 Rickenbacker Causeway, Miami, FL 33149-1098, by 15 August 1994.**

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

FACULTY POSITION THE WEIZMANN INSTITUTE OF SCIENCE

The Department of Biochemistry at the Weizmann Institute of Science, Rehovot, Israel, is seeking applicants for a tenure-track position at the Senior Scientist (ASSISTANT PROFESSOR) level starting in the fall of 1995 (earlier start possible). The Department of Biochemistry provides an excellent and stimulating research environment with groups conducting research in Molecular Genetics (gene expression, DNA replication and repair) and Bioenergetics (membrane transport systems and photosynthesis). Candidates are sought in these and other areas of biology, preferably with a background in protein-DNA interactions, molecular or developmental genetics, enzymology, or protein structure and biophysical methods. The successful candidate is expected to establish an independent and creative research group.

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

DIRECTOR, CENTER FOR SURGICAL RESEARCH—The Department of Surgery, University of California, San Francisco is seeking applicants for the newly endowed Elsbach Richards Chair in Surgical Research. Candidate will direct a new 4000 square feet research center focusing on basic research relevant to tissue injury, including inflammation, angiogenesis and repair. Candidate must have a Ph.D. and/or M.D. degree and demonstrated ability to lead an independent research program in an area of cell or molecular biology relevant to injury, inflammation, or repair. Position will be at the ASSOCIATE PROFESSOR/PROFESSOR level. Send curriculum vitae and three references to: **Dean Sheppard, M.D., Professor, Department of Medicine and Lung Biology Center, San Francisco General Hospital, Bldg. 1, Room 150, 1001 Potrero Ave., San Francisco, CA 94110. The University of California, San Francisco is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.**

CHAIR, DEPARTMENT OF MOLECULAR BIOLOGY UNIVERSITY OF TEXAS HEALTH CENTER AT TYLER

Applications and nominations are invited for senior level candidates that have a substantial research program, active grant support, national/international reputations, and demonstrable administrative skills. The emphasis of this young but growing research institute is on research associated with heart and lung diseases and all areas of basic research in molecular biology related to these areas will be considered. Tyler is an attractive small city with a good school system amid the forests and lakes of East Texas about 80 miles east of Dallas. Applications should include a current curriculum vitae, statement of professional goals, description of administrative philosophy and the names, addresses and telephone numbers of five references. Send to: **Michael K. Pangburn, Ph.D., Chairman, Search Committee, University of Texas Health Center, 11937 U.S. Highway 271, Tyler, TX 75708. UTHCT is an Equal Opportunity/Affirmative Action Employer. Male/Female/Disabled/Veterans.**



DEPARTMENT OF GEOLOGY AND GEOPHYSICS

Chair of Geology and Geophysics

Applications and expressions of interest are invited for the appointment to the Chair of Geology and Geophysics. The Department's particular interest is exploration geoscience.

The appointee will assume the Headship of the Department of Geology and Geophysics for an initial period of five years, and will be expected to provide academic leadership, conduct original research, supervise postgraduate students, and participate actively in undergraduate teaching.

An opportunity exists to integrate the resources of both the Geophysical Research Institute, which has an international reputation in exploration and environmental geophysics, and the Department, into an outstanding exploration research centre.

Staff resources within the Department and the Institute include approximately 30 academic and professional staff. Facilities and equipment include image processing, GLS, X-ray fluorescence, electron microscope, thin section and geochemistry laboratories, and a good selection of geophysical exploration instrumentation.

Applications from persons with experience in exploration science (geochemical/geophysical) would be particularly welcomed.

Informal enquiries may be directed to Professor K. W. Entwistle, Dean of the Faculty of the Sciences, telephone 61 67 73 2303, fax 61 67 73 3376.

Salary: \$78,991 pa (Level E)

Closing Date: 31 August, 1994

Position No: 518

Applications to be addressed to the Director, Personnel Services, University of New England, Armidale, NSW 2351, Australia, telephone 61 67 73 2678, and should include the names, addresses, telephone numbers, facsimile numbers/email addresses of three referees, and should state the above position number and must be received prior to the above closing date.

The right to fill the Chair by invitation, or to make no appointment, is reserved.

UNE
The University of
NEW ENGLAND

NJA901704

Equal Opportunity and a Smoke Free Environment
are University Policies

Hybridon, Inc., is a visionary biotechnology company developing a new generation of drugs that target specific human diseases. As we continue to advance our science, we're building a strong and exciting business. Join us.

MANAGER OF DATA MANAGEMENT

Directing Drug Development's data management and entry staff, you will monitor the quality of internal and external data management. Successful candidate will assist in software selection and in the implementation of a computerized system. To succeed, you'll need an BS degree in Biology or health related field, 3+ years of pharmaceutical or clinical trials experience and one or more years of experience in a management role including SOP formulation and staff training. Candidate must have knowledge of data management computer software and GCPs, and will be well versed in coding dictionaries for adverse events/medications. **DEPT. DM.**

MANAGER OF INFORMATION SYSTEMS

Identifying and assessing computer products for the US and European Drug Development Group, you will coordinate database and programming hardware/software needs. The successful candidate will assist in systems implementation, provide user education and training and interact with other functional groups to assist with systems integration. To qualify, you must have an MSCS, or equivalent, and 3 or more years of experience in systems administration and applications programming development. A solid knowledge of SAS, relational database design and data storage technology essential. 3 years of pharmaceutical experience is required. **DEPT. IS.**

ANALYTICAL CHEMISTS

Experience which includes Bioassay, NMR, Mass Spectrometry and FITR. Candidates who have experience in Regulatory Affairs would be desirable. Successful candidates should possess an MS with 3 to 5 years' experience or PhD with 2 to 4 years' experience. **DEPT. AC.**

ANALYTICAL MOLECULAR BIOLOGIST

Experience which includes organic synthesis, spectroscopy, HPLC, CE, gel electrophoresis is required and experience in DNA manipulation is a plus. Successful candidates should possess an MS in a scientific discipline with 3 to 5 years' experience. **DEPT. MB.**

RESEARCH ASSOCIATES

Experience which includes oligonucleotide synthesis and/or the chemistry and physical chemistry of oligonucleotide and RNA for studies to develop antisense and ribozyme therapeutics. To qualify, you must have a BS/MS in Chemistry, or equivalent, and 3 or more years of experience. **DEPT. RRA.**

Experience in preparative organic chemistry. Familiarity with all current analytical techniques including chromatography such as HPLC and UV/NMR spectroscopy are being expected. Knowledge in oligonucleotide synthesis would be desirable. To qualify you must have 3 or more years of experience and a BS/MS in Chemistry or equivalent. The successful candidate will be part of a new team being organized in our Process Development Group. **DEPT. KPD.**

Experience in Molecular Biology and/or Virology. Experience in molecular cloning, mammalian DNA transfections, cell culture and/or animal studies is appropriate. To qualify, you must have 2 or more years of experience and a BS/MS in Biology or equivalent. **DEPT. RES.**

With a commitment to steady growth, we offer ongoing professional development opportunities. We also provide a highly competitive salary and benefits package. Please send your resume, referencing the department, to: **Human Resources Manager, Hybridon, One Innovation Drive, Worcester, MA 01605.** An equal opportunity employer.

 **Hybridon**

POSITIONS OPEN

IMMUNOLOGIST

The Department of Zoology (reorganizing as the Department of Cellular Biology) at the University of Georgia seeks to fill a tenure-track **ASSISTANT PROFESSOR** position in Cellular or Molecular Immunology. Applicants with research interests in areas of immunology which are central to cellular biology, including cell activation, cell-cell interactions, signal transduction and membrane trafficking are of particular interest. The incumbent will be expected to develop a strong, independent research program and to contribute to undergraduate and graduate level teaching. Applicants should send curriculum vitae, statements of proposed research and teaching interests, and at least four letters of recommendation to: **Dr. Rick Tarleton, Chair of Immunology Search Committee, Department of Zoology, The University of Georgia, Athens, GA 30602.** Applications received by September 20, 1994, are assured of consideration. *The University of Georgia is an Equal Employment/Affirmative Action Institution.*

STAFF ASSOCIATE needed by Stroke Center at Columbia-Presbyterian Medical Center to assist in NIH-funded research project. Background in computer science and data management required. Responsibilities include computer programming; statistical analysis; and report preparation. Inquiries with curriculum vitae to: **Dr. J. P. Mohr, Director, Stroke Center, The Neurological Institute, 710 West 168th St., New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP

**Irvine Research Unit in Brain Aging, and Health Sciences Research Imaging Center
University of California, Irvine**

The University of California, Irvine (UCI) NIA Training Program in Aging has a position for a Postdoctoral Fellow interested in *in-vivo* NMR spectroscopy. Applicants should have a strong background in biochemistry with specific experience in NMR spectroscopy. A general knowledge of clinical aspects of aging and dementia would be helpful. Facilities include a specialized 1.5 Tesla clinical scanner with multinuclear NMR spectroscopy capability and a 5.25 Tesla whole body scanner to be operational during the summer of 1995 for *in-vivo* and *in-vitro* studies. Research examining basic and applied issues in aging and dementia involves interaction with an active multi-disciplinary group with applications in Neuroscience, Radiological Sciences, Computer Assisted Image Analysis, Artificial Intelligence, and Molecular Biology. The appointment will start on January 1, 1995, and the funding is available for only U.S. citizens and permanent residents. If you are interested, please submit current curriculum vitae, a statement of research interests and experience, and the names and addresses of three referees by October 1, 1994, to: **Professor O. Nalcioglu, Research Imaging Center, College of Medicine, University of California, Irvine, CA 92717-5020.** *UCI is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.*

POSTDOCTORAL POSITION. To study seasonal changes in mRNA and protein abundance of ovarian steroidogenic enzymes in catfish, and isolate cDNAs encoding these enzymes. Ph.D. in a biological science and experience with molecular biology techniques required. Experience in steroid reproductive endocrinology desirable. Start September 1, 1994, (pending final approval). Send curriculum vitae and three letters of reference to: **Dr. John Trant, Zoology & Physiology, Louisiana State University, Baton Rouge, LA 70803.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS STEROID EFFECTS IN BREAST CANCER

Available immediately. Project to investigate the role of adrenal androgens in human breast cancer cell growth and to develop models for studying the regulation of human adrenal androgen synthesis. Previous experience with immunodeficient rodents and/or transplantation biology would be highly desirable. Salary negotiable, dependent on experience. Please send curriculum vitae to: **Peter Hornsby, Ph.D., Huffington Center on Aging, Baylor College of Medicine, One Baylor Plaza - M320, Houston, TX 77030. Telephone: (713) 798-7334. FAX: (713) 798-6688. Email phornsby@bcm.tmc.edu.**

Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available now in the Department of Biochemistry, University of California. Experience with molecular biological techniques is required. The research involves the heterologous expression of carnitine octanoyltransferase and its site-specifically altered forms. Some experience with protein characterization would be useful. Send résumé and two references to: **Dr. R. R. Ramsay, Department of Veterans Affairs Medical Center, Molecular Biology Division (151-S), 4150 Clement Street, San Francisco, CA 94121. FAX: (415) 387-1431.**

POSTDOCTORAL POSITIONS

Molecular biologists, biochemists and organic chemists are invited to apply for postdoctoral positions involving interdisciplinary research on biomolecular materials in conjunction with the U.S. Army Natick, RD & E Center. Projects include the protein engineering of pore-forming proteins, arachnid silks, the insect elastomer resilin and proteinaceous components of molluscan shell [e.g. *Nature* 349, 596 (1991); *Science* 262, 1646 (1993); *Protein Eng.* 7, 91 (1994); 7, 655 (1994); *J. Biol. Chem.* 268, 5285 (1993); 269, 6661 (1994)].

Call Hagan Bayley at: **(508) 842-9146** for details or send your curriculum vitae and the names of references to: **Hagan Bayley, c/o Human Resources, Worcester Foundation, 222 Maple Avenue, Shrewsbury, MA 01545. FAX: (508) 842-9632.**

An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN NEUROIMMUNOLOGY AT BROWN UNIVERSITY. Position available for individual interested in neuroendocrine regulation of immune responses to viral infections. Focus is on role of endogenous steroids in shaping lymphocyte and cytokine responses. Studies are part of multi-center collaborative projects evaluating health outcomes of stress. Candidates should have Ph.D. and experience in immunology, biochemistry, or neuroendocrinology. Send curriculum vitae, statement of research interests, and 3 references to: **Dr. Christine A. Biron, Box G-B618, BioMed, Brown University, Providence, RI 02912.** Applicants must be U.S. citizens or permanent residents to qualify for training support in Environmental Pathology from NIEHS. **Applications are expected by August 1, 1994. Screening will begin on that date and continue until a successful candidate has been identified or the search is closed.** *Brown University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Available immediately to study relationship between diet and regulation of appetite in animals and humans. Background in nutritional biochemistry is desirable. This USDA-sponsored position is open only to U.S. citizens or permanent residents. Please send curriculum vitae and the names of 3 references to: **Dr. Preston Mercer, University of Kentucky, Department of Nutrition and Food Science, 219 Funkhouser Building, Lexington, KY 40506-0054, FAX: 606-257-3707, Telephone: 606-257-3800.** *Equal Opportunity Employer.*

The George Washington University Medical Center (GWUMC) is seeking a **PROFESSOR AND CHAIR** for the Department of Microbiology and Immunology. The GWUMC seeks a distinguished Ph.D. or M.D./Ph.D. scientist with an outstanding record of scientific productivity and proven ability to attract external funding in molecular virology with an emphasis on AIDS and Cancer. The Chair will direct the expansion and integration of a program in molecular virology, microbiology and immunology. The Chair will serve as director of the interdisciplinary Research Center in Molecular Virology and actively recruit additional faculty members. The candidate should be capable of leading the Department to a position of academic excellence and national prominence. The successful candidate will have demonstrated excellence in teaching at the medical, graduate, and postdoctoral levels, as well as leadership qualities and administrative skills necessary to develop an academic interdisciplinary program. Selection process will begin in September 1994 and continue until a successful candidate is identified. *The GWUMC is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.*

Applicants should submit curriculum vitae, an outline of current and future research interests, and names of three references to: **Dr. Christie A. Holland, Center for Virology, Immunology and Infectious Disease Research, Children's National Medical Center, 111 Michigan Avenue, N.W., Washington, DC 20010.**

POSITIONS OPEN

FACULTY POSITION IN NEPHROLOGY

The Division of Nephrology, Department of Medicine at the University of Alabama at Birmingham seeks applicants for a tenure earning position at the level of **ASSISTANT PROFESSOR.** Applicants must have a relevant Ph.D. or M.D. degree and at least 3 years of postdoctoral experience with demonstrated success in publications and securing extramural funding. Responsibilities would include expression cloning of the epithelial sodium channel subunits, with special emphasis on human hypertensive diseases such as Liddle's syndrome and low-renin hypertension. Special consideration will be given to those with strong independent research interests.

Send curriculum vitae to: **D. G. Warnock, M.D., Director, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL 35294. FAX: 205-934-1879.** *UAB is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION BOSTON UNIVERSITY MEDICAL CENTER

A postdoctoral position is available to study the relationship between the structure and function of secreted IgM and its contribution to disease (see *PNAS* 89:962, '92; *JBC* 267:18002, '92; *Immunol. Today* 15, 165, '94; *JBC* 269:17338, '94). Candidates should have experience in biochemistry and cell biology. Please submit a curriculum vitae summary of experience, and three letters of reference to:

**Ronald B. Corley, Ph.D.
Department of Microbiology
Boston University School of Medicine
80 East Concord St.
Boston, MA 02118-2394.**

An Equal Opportunity/Affirmative Action Employer.

MOLECULAR BIOLOGIST

POSTDOCTORAL/RESEARCH ASSOCIATE: position available, September 1, 1994, to explore the regulation of skeletal muscle genes using chimeric genes and *in vivo* expression systems. Background in molecular biology and Ph.D. or equivalent required. Salary, \$30,000 plus fringe benefits. Send curriculum vitae and three letters of reference to: **Norman Briggs, Ph.D., Department of Physiology, Box 980551, Medical College of Virginia, Richmond, VA 23298-0551.** *Virginia Commonwealth University is an Affirmative Action and Equal Opportunity Employer.*

SYSTEMATIC ZOOLOGIST

The Field Museum is seeking an outstanding systematic zoologist to fill a career-track appointment in the Department of Zoology at the level of Assistant Curator. Candidates pursuing innovative, specimen-based research in systematic biology will be considered. Among the areas of interest are the following: (a) molecular systematics, with a focus on integrating population genetics and/or molecular mechanisms with systematics; (b) developmental biology, including the use of tissue culture and histology as a means of addressing developmental and phylogenetic questions; (c) phylogenetic research that investigates questions in population or community ecology; or (d) systematics based on multiple data sets (molecular, morphological, behavioral) or making important contributions in a second field such as conservation, theoretical systematics, or biogeography. The successful candidate will have a Ph.D. and a proven record of scientific achievement. In addition to research, responsibilities include curation of collections and participation in public exhibit and education programs. The potential exists for participation in public exhibit and education programs. The potential exists for participation in graduate and undergraduate training at local universities. The Zoology Department is part of the Museum's Center for Evolutionary and Environmental Biology which includes the Departments of Botany and Geology. Consideration of applications will begin on September 15, 1994, and will continue until a suitable candidate is found. Please send the following materials: (1) curriculum vitae; (2) a statement of research objectives; (3) names and addresses of 3 people from whom letters of recommendation may be sought; (4) copies of relevant publications to: **Search Committee, Department of Zoology, Field Museum, Roosevelt Road at Lakeshore Drive, Chicago, IL 60605-2496.** Email inquiries: westneat@fmnh.org. *As an Equal Opportunity/Affirmative Action Institution, we especially encourage applications from women and minorities and we are responsive to dual-career needs.*

REGIONAL MEDICAL ASSOCIATE

SmithKline Beecham is a \$9.2 billion global pharmaceutical and healthcare company. Our world famous products and reputation mean unsurpassed opportunities for individuals to combine their scientific and marketing expertise as Medical Associates.

Our Medical Associates establish relationships within major managed care organizations for the purpose of acting as scientific liaison and providing in-depth information regarding SmithKline Beecham products. This includes the training of representatives and medical professionals. Travel 40-50%.

To qualify, you must have a Pharm.D. or Ph.D in Pharmacology, Toxicology, Microbiology or related life sciences. Strong marketing and communication skills and a high degree of initiative are also required. An opportunity currently exists in Michigan, requiring travel to Minnesota and Wisconsin.

We offer one of the best compensation packages including a car - in the industry. If you'd like to be a part of our success, send your resume with salary history to: SmithKline Beecham, Central Employment, 200-S North 16th Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham

CHIEF, CLINICAL PHARMACOLOGY BRANCH NATIONAL CANCER INSTITUTE

The Clinical Oncology Program, National Cancer Institute (NCI), National Institutes of Health (NIH), Public Health Service, is seeking applications for the position of Chief, Clinical Pharmacology Branch, at the Clinical Center in Bethesda, Maryland. The Branch is an integrated clinical and laboratory program in cancer medicine. The laboratories, consisting of 5000 square feet of space, support four senior research investigators. In addition, the Branch has access to NCI's inpatient wards and outpatient clinics at the NIH Clinical Center for translation clinical research in cancer medicine. This Branch has been a leader in the development of new agents and new approaches for cancer treatment. The Clinical Pharmacology Branch is also an integral part of the NCI training programs in both medical and radiation oncology.

We are seeking a senior clinical scientist who is at the forefront of research in the molecular and cellular biology of cancer. U.S. citizenship is required. Salary range is \$71,049-\$91,029. Payment of travel and transportation expenses will be considered on an individual basis. Exceptional recruiting difficulty may result in payment of a recruitment or relocation bonus. Application for Federal Employment (SF-171) must be received or postmarked by August 29, 1994. For application information, please contact Patrick Miller, Personnel Management Specialist, NCI, on (301) 496-1771.

NIH is an Equal Opportunity Employer.

CANCER BIOLOGY Research Associate

The Cancer & Infectious Disease Unit, Upjohn Laboratories Discovery Research, is seeking a highly motivated research associate to join a team dedicated to the discovery of novel anti-cancer therapeutic agents. The research program emphasizes innovative approaches to drug discovery utilizing cellular and molecular biology.

Qualified candidates must have a B.S. or M.S. degree and two years of documented achievement in cellular and molecular biology, biochemistry, or related discipline. Preferred applicants will have a working knowledge of cell cycle control and regulation of the neoplastic phenotype and be able to work independently in a competitive, but supportive environment.

In addition to an excellent salary and benefits package, Upjohn Laboratories offers a stimulating, multi-disciplinary research environment at our modern facilities located in Kalamazoo, a southwestern Michigan community located midway between Detroit and Chicago. This region provides an outstanding mix of cultural and recreational pursuits and a reasonable housing cost market. For confidential consideration please send your resume to: **The Upjohn Company, Corporate Recruiting, Ad #217, 7000 Portage Road, Kalamazoo, Michigan 49001.** We are an Equal Opportunity Employer with a commitment to workplace diversity.

Upjohn

Advancing Science...
Enhancing Life

Marketing Manager

Bio-Rad Laboratories is a multinational leader and innovator in the development and manufacture of high quality products; chemicals and instruments, for life science researchers and clinical diagnostic professionals.

The Clinical Diagnostics Group is looking for a Marketing Manager - DNA Diagnostics. We seek a person to identify and champion technologies and/or products that will lead to commercial successes. You will work with the entire Diagnostic Group as well as with our Life Science Group. An advanced degree in molecular biology coupled with marketing experience and an understanding of both life science technologies and the diagnostics market, combined with the energy to put it all together would be ideal.

We are looking for a truly excellent person to join our team. The task will be challenging, exciting and present real growth opportunities. If you feel that you are ready for this challenge, please send your resume, including salary history to: Bio-Rad Laboratories, Dept. 325, 4000 Alfred Nobel Dr., Hercules, CA 94547. EOE MFDV.

BIO-RAD

Bio-Rad Laboratories

POSITIONS OPEN

POSTDOCTORAL position available immediately to study gene expression from recombinant La Crosse-Sindbis viruses utilizing molecular biological and virological techniques. Strong experience in biochemistry or molecular biology or tissue culture essential. Please contact: **Dr. Raju Ramasamy, Microbiology, Meharry Medical College, Nashville, TN 37208. Telephone: 615-327-6687; FAX: 615-327-6072.** Candidates may also send their curriculum vitae and two letters of recommendation to the above address.

POSTDOCTORAL POSITION, MOLECULAR GENETICS OF COLOR VISION. An immediate position is available to conduct molecular analyses, including characterization and structure/function relationships, of opsin genes in vertebrates. Experience with molecular methodology (restriction mapping, screening of genomic libraries, cloning and sequencing) is required. A strong interest in molecular evolution is desirable. Send curriculum vitae, a statement of research interests, and three references to: **Dr. Shozo Yokoyama, Department of Biology, 130 College Place, Syracuse, NY 13244. Telephone: 315-443-9166; FAX: 315-443-2012; Email: SYOKOYAM@SUVM.BITNET.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS Lymphocyte Development

Applications are invited for postdoctoral positions to study molecular events in haematopoietic stem cell and lymphocyte development. Please send curriculum vitae, statement of research interests and three letters of references to: **Dr. Ronald Palacios, Department of Immunology, Box 178, U.T. M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.** *An Equal Opportunity/Affirmative Action Employer. Smoke-free environment.*

FOUR POSTGRADUATE RESEARCH APPOINTMENTS sponsored by EPA's Environmental Monitoring Systems Laboratory (EMSL) in Cincinnati, OH. (1) **Molecular Biologist** (EMSL 94-2); research involves using molecular methods to analyze population genetic diversity in wildlife. M.S. or higher degree with experience in molecular genetics required. (2/3) **Terrestrial Ecologist** (EMSL 94-1/10)—two postdoctoral positions to assist with research on improved methods to assess stressor-induced risks to terrestrial wildlife and/or soil biota; and to evaluate ecological risks associated with the land application of sewage sludge. (4) **Plant Population Geneticist** (EMSL 94-3); research, tenable at the University of Cincinnati, Department of Biological Science, involves investigations, using VNTR DNA variation, of effects of anthropogenic disturbance on population genetics of selected plants species. Ph.D. with experience in plant molecular population genetics preferred. Participants receive monthly stipends. Contact: **Postgraduate Research Programs/EMSL, Science Engineering Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117, (615) 576-3456.**

PROTEOGLYCANS IN ALZHEIMER'S DISEASE

One **POSTDOCTORAL POSITION** available (September 1, 1994) in the laboratory of Dr. Alan Snow in the Department of Pathology at the University of Washington in Seattle. Research in Dr. Snow's lab focuses on the role of proteoglycans in the pathogenesis of amyloidosis in Alzheimer's disease (AD). Candidates with experience in molecular biology (Northern, Southern, cloning, PCR etc.), *in situ* hybridization and production of transgenic animals are preferentially sought. Money for a 3-year postdoctoral fellowship available. Applicants send curriculum vitae and reference list to: **Dr. Alan Snow, University of Washington, Department of Pathology, Neuropathology Labs RJ-05, Seattle, WA 98195.** Preferential candidates will be invited to Seattle to interview.

POSTDOCTORAL POSITION IN PLANT PHYSIOLOGY available in September 1994 to study the cytoplasmic regulation of iron(III) reductase activity in roots. Research involves the isolation of a phloem-mobile signal compound which enhances root reductase activity. Recent Ph.D. in plant physiology, biochemistry, cell biology, or related field required; experience in immobilized metal affinity chromatography would be helpful. Send curriculum vitae and names of three references to: **Dr. Michael A. Grusak, USDA-ARS, CNRC, 1100 Bates Street, Houston, TX 77030.**

POSITIONS OPEN

HARVARD MEDICAL SCHOOL JOSLIN DIABETES CENTER POSTDOCTORAL POSITIONS

Two positions available immediately to study the immunological defects underlying the development of type I diabetes in a laboratory where state-of-the-art transgenic mouse and gene targeting techniques are used. Current projects focus on the mechanisms of antigen-specific tolerance induction and the nature of immune recognition (*Science* 259:1165, 1993) in NOD mice. Candidates should have a strong background in molecular biology and immunology. Please send curriculum vitae, a summary of research interests, and the names and addresses of three references to: **Dr. Myra A. Lipes, Research Division, Joslin Diabetes Center, One Joslin Place, Boston, MA 02215.**

Virginia Commonwealth University's (VCU) Department of Pharmacology and Toxicology seeks a **POSTDOCTORAL FELLOW** to study opioid tolerance and dependence in neonatal rats. The project involves behavioral pharmacology and molecular biology, including *in situ* hybridization and PCR. Recent Ph.D.s with a background in pharmacology or neuroscience are encouraged to apply. Send curriculum vitae and names of three references to: **Dr. Mary Abood, Pharmacology and Toxicology, MCV/VCU Box 980524, Richmond, VA 23298-0524.** Anticipated hire in fall 1994.

POSTDOCTORAL FELLOWSHIP IN ARTHRITIS GENE THERAPY. We are seeking a well-trained, motivated molecular biologist to join a team of researchers who are conducting pre-clinical arthritis gene therapy studies at a leading arthritis research center. The candidate would be involved in studies to test the feasibility of using gene transfer techniques to modify mechanisms underlying arthritis. Experience with transfections, Northern, dot blots, RT-PCR, CAT assays, vector construction and packaging, molecular cloning and plasmid purification is desired. Position requires a Ph.D. degree. FAX or send curriculum vitae and two letters of recommendation to: **William J. Koopman, M.D., Howard L. Holley, Professor of Medicine, Director, Division of Clinical Immunology and Rheumatology, The University of Alabama at Birmingham, Birmingham, AL 35294. FAX: (205) 934-1564.** Position available July 1, 1994. *UAB is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE. Two positions are available to study: a) the molecular mechanisms and control of HIV-1 replication in T cells, particularly as regards to the role of the *vif* gene; b) the molecular basis for HIV-1 neurotropism and HIV-1 mediated encephalopathy in AIDS. Applicants should have a Ph.D. or equivalent and 3 to 5 years of experience in virology and molecular biology. Salary: \$25,000 to \$30,000. Direct inquiries, including curriculum vitae and names of three references to: **Dr. David J. Volsky, Molecular Virology Laboratory, St. Luke's/Roosevelt Hospital Center and College of Physicians and Surgeons, Columbia University, 432 West 58th Street, New York, NY 10019. Telephone: (212) 582-4451, FAX: (212) 582-5027.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH PROGRAM on cellular and molecular aspects of antioxidants' function in skin. The study focuses on molecular mechanisms involved in the cellular response to environmental and oxidative stresses. Requirements: Ph.D. with minimum 3 years of experience in areas of biological chemistry/cell biology, expertise in a broad range of molecular techniques, including protein biochemistry and enzymology. Please submit application, curriculum vitae and three professional references to: **Linus Pauling Institute of Science and Medicine, 440 Page Mill Road, Palo Alto, CA 94306 (Attn: Dr. Niedzwiecki).**

POSTDOCTORAL POSITION available immediately to study chemistry and biology of DNA damage produced by enediyne anticancer drugs. Qualifications: Ph.D. in chemistry or biology with significant experience in nucleic acid biochemistry and/or molecular/cell biology of DNA damage. Send curriculum vitae, summary of research experience, and names/addresses of three references to: **Dr. Peter Dedon, Division of Toxicology, 16-336B, MIT, Cambridge, MA 02139.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

RESEARCH SCIENTIST

Position is immediately available to study HIV-1 and B cell lymphokine expression at the cellular and molecular levels. Specific requirements include strong background in molecular biology and cellular immunology of HIV-1. Excellent salary and fringe benefits. Send résumé, names and addresses of three references and salary requirements to: **David Benjamin, M.D., 1232 James Cancer Hospital and Research Institute, The Ohio State University Hospitals, 300 W. 10th Avenue, Columbus, OH 43210-1228. Telephone: (614) 293-3716; FAX: (614) 293-4372.**

RESEARCHERS . . .

ACCEPT THE CHALLENGE OF TOMORROW!

As a dedicated pioneer of health products, Otsuka America Pharmaceutical, Inc. is a company led by a guiding principal of providing better health through pharmaceutical innovation. We could be your new avenue to expanding and refining your research talents.

We are currently seeking **RESEARCHERS** (M.S. degree/Ph.D. preferred) with experience in:

- The physico-chemical analysis of drug action in protein binding (a background in either protein chemistry or physical chemistry is acceptable).
- Signal transduction analysis of drug action (a background in cell biology, molecular biology, immunology, or microbiology is acceptable).
- Animal model analysis of drug effect (background in veterinarian medicine, pathology, pharmacology, or animal biology is acceptable).

Otsuka America Pharmaceutical, Inc. offers a competitive salary and an attractive benefits plan which includes: company paid health insurance, dependent care flexible spending account, 401(k) plan and a fully paid retirement program. To apply send your résumé and salary requirements to: **Helena Matos, Human Resources Dept. 1000, Otsuka America Pharmaceutical, Inc., 2440 Research Blvd., 5th Floor, Rockville, MD 20850.** *An Equal Opportunity Employer.*

OTSUKA AMERICA PHARMACEUTICAL, INC.

HOTEL-DIEU HOSPITAL RESEARCH CENTER/BURN CENTER AFFILIATED WITH THE UNIVERSITY OF MONTREAL

The Research Group on Burn injuries in Hotel-Dieu Hospital, Montreal, Canada, and the Clinical Research Center of Hotel-Dieu are seeking an **INVESTIGATOR** with a Ph.D. in immunology to pursue clinical and/or fundamental research on the immune system during injury and trauma. Send curriculum vitae, names and addresses of three references, and a statement about your research orientations to: **D. R. Garrel, M.D., Clinical Research Center, Hotel-Dieu Hospital of Montreal, 3850 St. Urbain Street, Montreal, Quebec, Canada, H2W 1T8.**

POSTDOCTORAL RESEARCH SCIENTIST.

Position available to work in clinical laboratory studying human motor physiology and the quantitative assessment of movement disorders. Applicant must have Ph.D. in biomedical engineering or equivalent, expertise with data acquisition electronics and programming abilities. Experience in expert systems and digital imaging technology is preferred. Send curriculum vitae and three letters of reference to: **Dr. Seth Pullman, Director, Clinical Motor Physiology Laboratory, The Neurological Institute, Columbia-Presbyterian Medical Center, 710 W. 168th Street, New York, NY 10032.** *CU is an Equal Opportunity/Affirmative Action Employer.*

SENIOR PROGRAMMER/RESEARCHER: Develop federated multidatabase management systems for distributed, heterogeneous environments utilizing computational models from relational, object-oriented and deductive DBM's. Plan, direct and coordinate research activities of multidatabase management systems to develop new and improved systems and programs. Plan research programs and direct experiments to improve new systems and explore possibilities of new theories, (e.g. artificial intelligence). Must have in-depth knowledge of VMS, UNIX, OS2, Objective-C, C++, SMALLTALK, CLOS, VAX, NeXT, SUN. Must have Ph.D. in computer science or M.S. with at least 10 years experience. Salary: \$50,000 per year. Job Site/Interview: Anaheim, CA. Send this ad and your résumé to: **Job# CL409299, P.O. Box 269065, Sacramento, CA 95826-9065** no later than August 1, 1994.

CARDIOVASCULAR PHARMACOLOGIST

SmithKline Beecham Pharmaceuticals has an international reputation for taking an innovative approach to drug discovery and development. Our success is built on the collaboration of multidisciplinary teams of scientists who share ideas and expertise while working in top-flight facilities on projects that are challenging and diverse.

Currently, we are seeking an Associate Scientist in Cardiovascular Pharmacology to assist in applying cellular biochemical and molecular biology techniques for the identification of novel factors that regulate vascular smooth muscle and endothelial cell function.

This position requires a BS/BA/MS/MA in Biomedical Science, 1-3 years' relevant cardiovascular biology experience and a background in cell culture, molecular biology and computers. Experience with RNA isolation, Northern hybridization, Southern, PCR, DNA transfection and DNA sequencing techniques preferred. A working knowledge of vascular pharmacology with emphasis on endothelial and smooth muscle cell biology further qualifies you.

Based in our modern, state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation and benefits package. For confidential consideration, please submit your resume and the names of three references to: SmithKline Beecham Pharmaceuticals, Employment Administrator, #H0210, PO Box 679, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

A research assistant position is available to investigate and develop new types of recombinant immunotoxins directed at cancer cells. The position requires broad expertise in molecular biology, protein purification, and in the design of recombinant immunotoxins containing *Pseudomonas* toxin and Fv fragments of antibodies. The position also requires expertise in phage antibody display, knowledge of properties of cancer cells and their biochemical responses to toxin treatment. Applicant must have a Doctoral level degree and at least four years post doctoral experience. Salary ranges between \$40,000 to \$50,000, depending on experience. Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, gender, national origin, politics, marital status, physical or mental disability, age, sexual orientation or membership or non-membership in an employee organization.

To apply, please send curriculum vitae, reprints, description of research experience and a list of references to:

Dr. Ira Pastan
Chief, Laboratory of Molecular Biology
DHS, PHS, NIH, National Cancer Institute
Building 37, Room 48-16
Bethesda, MD 20892

Applications must be received by August 12, 1994
NIH/NCI is an Equal Opportunity Employer

PENN STATE FACULTY POSITIONS IN BIOLOGY

The Department of Biology is building an interdisciplinary program in plant sciences and invites applications for two tenure track **ASSISTANT PROFESSORS** beginning as early as January, 1995. We seek candidates with a commitment to excellence in teaching and research as well as an extensive molecular background, experience and excellence in sequencing, a major interest in gene regulatory mechanisms unique to plants, postdoctoral experience, and evidence of potential to develop an independent, vigorous, externally funded research program. Send letter of application, including statement of research and teaching interests, curriculum vitae, and names, addresses, and phone numbers of three references to: **Linda Maxson, Box PS, Department of Biology, 208 Mueller Lab, Penn State University, PA 16802-5301.** Evaluations will begin in August and will continue until positions are filled. *An Affirmative Action/Equal Opportunity Employer. Women and Minorities encouraged to apply.*



UWA

The University of Western Australia

Perth

CHAIR IN PSYCHIATRY FOR THE ELDERLY

Applications are invited for this newly established Chair in Psychiatry for the Elderly from medical graduates registered or eligible for registration in Western Australia. In addition to appropriate professional qualifications, it is essential that applicants meet the accreditation requirements for Fellowship of the Royal Australian and New Zealand College of Psychiatrists or its equivalent.

The academic and administrative location of the Chair is in the University Department of Psychiatry and Behavioural Science, attached to the Sir Charles Gairdner Hospital - an adult teaching hospital.

The appointee is expected to contribute to undergraduate and postgraduate teaching, and to take a prominent leadership role in future psychogeriatric research, psychiatric clinical services and policy development in Western Australia.

The appointment is for five years, (subject to annual review for the first three years). An attractive remuneration package will be negotiated. Benefits include generous superannuation, study leave with travel assistance after three years, long service leave, fares to Perth for the appointee and dependents and an allowance towards removal expenses.

Intending applicants must obtain a selection package which includes the selection criteria and information about the position and conditions of employment, from Professor A Jablensky in the Department of Psychiatry and Behavioural Science, tel. [61 9] 389 2394; facsimile [61 9] 389 3828.

Applications, addressing the selection criteria, and stating full personal particulars (including work and home addresses, telephone and facsimile numbers), should reach the Director, Human Resources, The University of Western Australia, Nedlands, (Perth) Western Australia 6009 by Wednesday, **17 August 1994.** The names, addresses and facsimile numbers of three referees should also be included with the application.

The University reserves the right to make no appointment or to fill the position by invitation. The University is an equal opportunity employer and promotes a smoke-free work environment. Women are encouraged to apply for this position.

National Center for Human Genome Research National Institutes of Health Visiting Investigator Program

The Visiting Investigator Program provides faculty level scientists from outside the NIH with the opportunity to spend a 3-12 month period at the National Center for Human Genome Research (NCHGR) laboratories and clinics at the NIH. Visiting investigators can use their stay at the NCHGR to learn new technologies, develop research collaborations, or pursue sabbatical research projects. Basic and clinical genetic researchers and social scientists may access the Center's laboratories, core facilities, clinics, and training programs for study in any area of human genetic disease, including the social implications of genetic research. Partial funding of salary support is available, as well as all funding for research related expenses while at the NIH. Project proposals extending to one year are preferred in order to enhance the possibility of accomplishing research objectives. Applications may be initiated by submitting: a curriculum vitae, a cover letter describing the proposed project to study or collaborative effort (including the time frame proposed to complete the study), and a supporting letter from the candidate's department head (or equivalent). Applications are accepted throughout the year with the program commencing January 1, 1995. Applications for the cycle beginning January 1, 1995 must be received by September 1, 1994.

**For Program application information
or questions, contact:**

**Betty Wolf, Director
Visiting Investigator Program
NIH/National Center for
Human Genome Research
Building 49, Room 4A28
9000 Rockville Pike
Bethesda, Maryland 20892
Tel: (301) 402-2012
Fax: (301) 402-2440
e-mail: wolfie@helix.nih.gov**

Women and minority candidates are strongly
encouraged to apply.

Procter & Gamble

CELL BIOLOGIST

The Procter & Gamble Company has an immediate opening for a scientist to work in the Corporate Research Division located in our Miami Valley Laboratories in Cincinnati. This position is ideal for an individual who desires a career in cell biology.

■ Ph. D. CELL BIOLOGIST

The successful candidate will investigate the role of growth factors and their receptors in skin and related tissues. Experience with *in situ* hybridization and histology is required. Experience with transgenic models is desirable. Applicants should have a Ph.D. in cell biology or related discipline and 2-3 years of postdoctoral experience.

Procter & Gamble is a world leader in the research, development, manufacture, and marketing of a wide variety of consumer products. Annual sales exceed \$30 billion, and our annual R&D investment is \$1 billion. P&G offers a competitive salary and benefits package, placing us among the top 5% of U.S. firms.

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

**Procter & Gamble
R&PD Technical Recruiting, Dept. CO
P.O. Box 398707 • Cincinnati, OH 45239-8707**

No agency referrals, please.
An Equal Opportunity Employer

ANNOUNCEMENT



POTAMKIN PRIZE FOR RESEARCH IN PICK'S, ALZHEIMER'S AND RELATED DISEASES

A prize of \$100,000 will be awarded by the American Academy of Neurology to a person(s) in recognition of major contributions to the understanding of the causes and the prevention, treatment, and ultimately the cure for Pick's, Alzheimer's and related diseases.

Candidates may be nominated on a world-wide basis from any of the biological disciplines including biochemistry, molecular biology, molecular genetics, pharmacology, immunology, physiology, cell biology, neuropathology or epidemiology.

A nomination application, nominating letter citing the scientific accomplishments of the candidate in detail, two supporting nominating letters, a curriculum vitae, and up to six (6) selected reprints in nine (9) complete sets are required.

The deadline for receipt of materials is November 1, 1994. No nomination will be considered unless it is complete. The awardee(s) must be present for the AAN Scientific Program, at its annual meeting in Seattle, Washington, on Tuesday, May 9, 1995.

Request application and submit nomination to:

Potamkin Prize for Research in Pick's,
Alzheimer's and Related Diseases
American Academy of Neurology
2221 University Avenue S.E. - Suite 335
Minneapolis, MN 55414
(612) 623-8115

The Potamkin Prize is funded through the philanthropy of the Potamkin Foundation.

For Over A Century, Our Research Has Changed The Way People Live.

Since 1888, Abbott has made profound advances in the development of health care products and services. Today, the Neuroscience Discovery Group of our Pharmaceutical Products Division is continuing this commitment through its innovative work in therapeutic approaches for the treatment of neurodegenerative diseases.

GROUP LEADER Neuroimmunology

You will head a multi-disciplinary group of PhD and associate scientists that will identify and exploit molecular targets involved in the regulation of neuronal viability as it relates to neurodegenerative diseases.

This position requires: a PhD and at least 6-10 years of postdoctoral experience with expertise in cellular and molecular biology and pharmacology; research experience in immunology and/or neurobiology; and a demonstrated record of achievement. In addition, management experience and a pharmaceutical or drug discovery research background are desirable.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban area, approximately 30 miles north of Chicago. For confidential consideration, please send a resume and salary history to: **Alison Burke, Job# KS65531, D-583, AP6B, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

ABBOTT LABORATORIES



Quality
Health Care
Worldwide
1888-1994

Experience The Abbott Edge.

Research Assistants

~ASSAY DEVELOPMENT AND SCREENING GROUP~

Onyx Pharmaceuticals is a dynamic young company engaged in the development of small molecule therapeutics for cancer and other diseases associated with abnormal cell growth. Our research focuses on the *ras* superfamily, tumor suppressor genes, and the fundamental mechanisms governing many cell functions including growth and differentiation.

Our commitment to establish a world-class screening operation has created an excellent opportunity for both M.S. and B.S. level personnel with significant experience and expertise in mechanism-based high throughput screening of compounds, natural products and/or combinatorial chemical libraries. In addition to having demonstrable skills in assay development, high throughput screening and protein biochemistry, candidates must be highly motivated individuals possessing good organizational and interpersonal skills.

ONYX is located in the San Francisco Bay Area, not far from Berkeley. A highly interactive atmosphere prevails, where publications and open discussions are strongly encouraged. We offer a competitive salary and benefits package, which includes stock options. If you are interested in joining us, please send/FAX your resume, in confidence, to: **Onyx Pharmaceuticals, HR Department, Attn: RC-S, 3031 Research Drive, Richmond, CA 94806. FAX: (510) 222-9758. Equal Opportunity Employer**

ONYX
PHARMACEUTICALS

PROTEIN CHEMISTRY

What makes Pfizer a major force in pharmaceutical progress? The answer is to be found in real life-in people who thrive on developing new and better therapeutic answers to real-life needs. Such are the scientists of Pfizer's Central Research Division.

**At Pfizer,
we're part
of the cure.**

Located on the Connecticut shore, our Central Research Division is a place of state-of-the-art laboratories, invigorating discovery objectives, and significant investment in R&D primarily, though, it's a place of individuals...individuals who work hard to make a difference.

Research Assistants

Currently, we have challenging opportunities on a key interdisciplinary discovery group working within the Department of Molecular Genetics and Protein Chemistry. The first position requires the depth of experience needed to play a central role on projects involving enzyme kinetics and protein purification/characterization. Detailed knowledge of the use of FPLC and/or HPLC/BIOCAD for analytical/preparative purposes is essential. In addition, a position exists with responsibilities focusing on protein purification and/or protein expression.

Qualified candidates will possess a B.Sc. or M.Sc. in Biology or Biochemistry and experience in the structure and dynamics of recombinant proteins. A background in recombinant DNA derived protein isolation and purification with a special emphasis on preparing highly purified samples for structural analysis is necessary. Use of FPLC/HPLC would be an asset.

These openings require strong communication, problem solving and analytical skills. In exchange for your expertise, Pfizer offers excellent compensation, attractive benefits including a relocation package, and opportunities for significant growth. For confidential consideration, send your resume to: **Ms. Lynn Beaulieu, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.**

We are an equal opportunity employer. M/F/D/V



Central Research

Special Advertising Section

Announcing the 2nd Annual BS/MS Careers Issue *August 26, 1994*

"Last year we advertised in the *SCIENCE* BS/MS issue. Our presence in that issue really increased our visibility on college campuses."

Donna Kleinschmidt, University Relations Manager, Hoffmann-La Roche

Get B.S. and M.S. students excited about your career opportunities or your graduate programs.

SCIENCE Magazine offers you a once a year opportunity to reach the best and brightest science students and tell them about your career opportunities or graduate programs in the August 26, 1994 issue. You'll reach over 159,000 regular subscribers as well as get special bonus distribution to top science students around the US.

Bonus distribution to the 70 top biology and chemistry programs in the US.

Make sure your message gets the impact you need through our regular 159,000 subscriber base and through the bonus distribution to students in the top biology and chemistry programs around the US. Full page advertisers get bonus distribution to the top 70 colleges and universities** in the special reprint of the BS/MS advertising section.

Reach eligible minority students.

Do you need to reach a diverse pool of candidates? When you advertise in the BS/MS careers issue your advertisement will get special distribution to U.S. colleges and universities with historically high minority enrollment.

The clock is ticking, so don't delay!

Timing means everything when you need to reach top scientists. Advertising in SCIENCE increases your chance of reaching the best and brightest candidates first. Get scientists excited about your company. Advertise in SCIENCE!

Placing your ad is easy!

The SCIENCE recruitment advertising staff makes your advertising placement easy! Call Janis Crowley at (212) 496-7704, or fax (202) 682-0816 for more information.

SCIENCE

Listing of colleges and universities participating in the 1994 bonus distribution of the SCIENCE BS/MS reprint:

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

Indiana University
Johns Hopkins University
Lehigh University
MIT
Michigan State University*
Morehouse College*
New Mexico State University
New York University
Northeastern University
North Carolina A & T State University
North Carolina Central University
Ohio State University
Penn State University
Princeton University
Purdue University
Rice University
Spelman College*
Stanford University
SUNY, Buffalo
Syracuse University

Texas Tech University
Tufts University
Tuskegee University*
University of Arkansas*
UC - Berkeley
UC - Davis
UC - Los Angeles
UC - Riverside
UC - San Diego
UC - Santa Barbara
UC - Santa Cruz
University of Chicago
University of Colorado
University of Delaware
University of Houston
University of Illinois
University of Massachusetts
University of Miami
University of Minnesota
University of North Carolina

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

**Advertising Space Reservation
Deadline: August 9, 1994.**

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

TWO ASSISTANT PROFESSOR POSITIONS

The Department of Entomology at the University of Georgia invites applications for two tenure-track positions to begin in September, 1995.

INSECT SYSTEMATIST The successful candidate will be expected to sustain a major research program in Arthropod Systematics and Phylogenetics that emphasizes modern approaches and techniques. Teaching responsibilities include graduate-level courses in Insect Taxonomy and Systematics, Insect Morphology, and an additional course in the candidate's specific area of interest.

INSECT PHYSIOLOGIST The successful candidate will be expected to develop a strong, creative research program and teach at the undergraduate and graduate levels. Those applying molecular approaches to fundamental entomological questions are especially encouraged to apply.

Applications received by November 1, 1994 are assured of consideration. Applicants should arrange for four letters of reference to be sent to the appropriate committee. Apply by sending a curriculum vitae, list of publications, three selected reprints, brief statements of research and teaching interests, and four letters of reference (solicited by the applicant) to:

Insect Systematics Search Committee, or
Insect Physiologist Search Committee
Department of Entomology
University of Georgia
Athens, GA 30602-2603

The University of Georgia is an Equal Opportunity/Affirmative Action Employer

Desert Research Institute Reno, NV Ass't Research Professor

Program management of air quality research projects; development and application of gaseous/aerosol measurement methods; statistical data analysis; source/receptor modeling and data interpretation on mass and chemically speciated aerosol, gaseous and meteorological data; preparative aerosol, gaseous and meteorological data; preparation of proposals, reports and journal articles; establishing and maintaining relations with sponsors; and presenting research findings.

Post-Doctoral Research Assistant One-Year App't.

Assist in developing new air quality research areas and sampling and analysis methods for atmospheric pollutants, participate in field measurement programs, conduct microcomputer-based analysis of air quality and meteorological data and prepare journal articles, reports and proposals.

Positions require doctorates in environmental science, physics, engineering or chemistry from accredited universities; previous experience performing duties similar to those listed above, proficiency in FoxPro, Excel, Harvard and Freelance Graphics and Word 6.0 and demonstrable written/oral communication and human relations skills. Previous publications, successful proposal preparation and prior industrial or technology transfer experience desirable. Salaries commensurate with qualifications and experience. Excellent benefits package. Submit resume, one-page narrative describing how your qualifications meet position requirements and names, addresses and phone numbers of three references to: Recruitment Office, Desert Research Institute, UCCN P.O. Box 19040, Las Vegas, NV 89132-0040.

Affirmative Action/Equal Opportunity Employer.

Creating New Technologies For **BETTER MEDICINE.**

FOCAL, INC. combines proprietary polymer and delivery device technologies to create innovative products that prevent post-surgical adhesions, thrombosis and restenosis. Our current success and business growth have created the need for the following team-oriented, self-motivated professionals to join us.

ASSOCIATE SCIENTISTS

• **Animal Surgery** This individual will perform surgical procedures to evaluate novel therapies for post-surgical adhesions, restenosis and other focal disease states. Duties include model and procedure development, providing pre and post operative care, developing appropriate protocols and analyzing research results. We require an MS or higher in the life sciences or medicine, and 5+ years' experience performing general surgical procedures in a research environment. Experience with micro-vascular techniques and catheterization is preferred.

• **Product Development** You will assist in the development and commercialization of hydrogel-based products, participating in cross-functional teams to provide acceptable formulations, containers and sterile processes. We require a BS/MS in pharmacy or chemistry, and 3-5 years' hands-on experience in pharmaceutical product development. Demonstrated working knowledge in the design and formulation of parenteral products and/or delivery systems is essential, along with expertise in GLP, GMP and sterile process development.

Along with strong compensation, benefits and equity participation, FOCAL provides a creative, cooperative and future-focused work environment, well worth your forwarding a resume in confidence to: Human Resources, FOCAL, Inc., One Kendall Square, Building 600, Cambridge, MA 02139. No phone calls, please; FOCAL is an equal opportunity, affirmative action employer M/F/D/V.

Focal™
INTERVENTIONAL THERAPEUTICS

Technology For Life.

Genelabs Technologies, Inc. is a broad-based biopharmaceutical company focused on the discovery, development and commercialization of products for the diagnosis, treatment and prevention of viral diseases and cancer. We provide an exciting and challenging environment where you are encouraged to reach your full potential.

The successful candidates will interact with a multidisciplinary team including immunology, cell biology, protein biochemistry and molecular virology expertise. A PhD in Virology, Cell Biology or Immunology and at least three years of relevant post doctoral experience are a must. Requirements include experience with the specific techniques listed in each description, as well as excellent written and verbal communication and presentation skills.

Virologist/Cell Biologist

You will be responsible for the establishment, validation and application of in vitro systems for propagation of viral pathogens and evaluation of viral replication, including both protein and nucleic acid readout systems, using both primary cells and transformed cell lines. This position will also involve development of techniques for viral antigen detection and viral neutralization assays, with an emphasis on development of vaccines for hepatotropic viruses.

Viral Immunologist

You will be responsible for immunological characterization of vaccine candidates including generation and characterization of monoclonal antibodies to viral antigen preparations (epitope mapping, fine specificity, affinity, and immunobiological properties). This position also involves oversight of small animal immunizations and characterization of immunological responses including neutralizing and non-neutralizing humoral, ADCC and cellular responses (proliferative and cytotoxic) as well as comparative evaluation of immunological properties of alternative antigen and adjuvant preparations. Demonstrated expertise in immunoregulation or mucosal immunology favorably regarded.

Genelabs Technologies, Inc. has an excellent compensation program including our medical and dental coverage, stock plans, 401(k), 125(k), tuition reimbursement, bonus program, and much more. Please send your resume, indicating position of interest, to: Genelabs Technologies, Inc., Human Resources, 505 Penobscot Drive, Redwood City, CA 94063, or FAX (415) 368-0709. Equal Opportunity Employer.



GENELABS
TECHNOLOGIES, INC.



Director of the School of Environmental Studies

Queen's University is establishing a School of Environmental Studies within the Faculty of Arts and Science. The School will assume responsibility for the Faculty's undergraduate Environmental Science Program. It will conduct environmental-science research, foster collaboration among faculty in natural-science, social-science and humanities departments and in other Faculties and Schools, and promote teaching related to the environment, especially in the social sciences and humanities. It will be housed in Queen's new Biosciences Complex.

We are seeking candidates for the position of **Director of the School**. The successful candidate will have a strong research track-record and a demonstrated commitment to high-quality teaching in a natural-science discipline, with particular experience relevant to environmental science. The Director will be expected to provide intellectual and administrative leadership to a growing interdisciplinary enterprise.

The successful candidate will be appointed at a rank and salary commensurate with experience and qualifications to a tenure-track or tenured faculty position in the appropriate department (Biology, Chemistry, Geography or Geological Sciences), and will also be appointed Director of the School for a five-year term. The appointment will commence 1 July 1995.

Applications, including a curriculum vitae, copies of recent scholarly publications, and the names of at least three persons who can provide letters of reference, should be sent to the above address by 1 October 1994.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University has an employment equity program, welcomes diversity in the workplace, and encourages applications from all qualified candidates including women, aboriginal peoples, people with disabilities, and members of visible minorities.

Additional information concerning this position and the School can be obtained from the Chair of the Search Committee:

**Dr. John M. Dixon, Associate Dean
Faculty of Arts and Science
Queen's University
Kingston, Ontario, Canada K7L 3N6
Tel 613 545-2448
Fax 613 545-2067
e-mail
DIXONJ@QUCDN.QUEENSU.CA**



**LOYOLA
UNIVERSITY
CHICAGO**

The Stritch School of Medicine, Loyola University of Chicago, is seeking applications and nominations to the position of Professor and Chair, Department of Surgery. The successful candidate will not only have the opportunity to assume the leadership of a strong, mature faculty but also have the opportunity to diversify the department in new areas of interest.

Candidates should be nationally recognized and have the qualifications and experience to direct a major academic surgical program.

Loyola University is an equal opportunity, affirmative action employer in its 124th year of service to the Chicago area and the nation.

Nominations along with curriculum vitae should be sent to:

**Leonard L. Vertuno, MD
Chairperson, Search Committee for
Chairperson, Department of Surgery
Stritch School of Medicine
Loyola University of Chicago
2160 South First Avenue
Maywood, Illinois 60153**

Mark Your Calendar for 23 September 1994: SCIENCE's Annual Careers Issue

On 23 September 1994 *Science* will present its annual Careers issue. Here's your chance to place your advertisement in one of the most important and popular issues of the year. Last year's Careers issue highlighted over 65 pages of career opportunities for scientists at all levels. The 1994 issue will once again rank as one of the top scientific career planning resources. You can be sure scientists at all levels will use the Careers issue to survey the job market and plan future career moves.

When you advertise in the 23 September issue you will receive:

- **Bonus Distribution**

Copies of the 23 September issue will be distributed to over 2,000 attendees at each of the Biotechnology/Pharmaceutical Job Fairs in La Jolla, CA on September 23-24, and in Cambridge, MA on September 30-October 1.

- **Advertisers' Index**

Full page advertisers will be listed separately on an index affixed to the covers of the issues distributed at the job fairs.

- **Harvey Readership Study**

Full page advertisers will benefit from a Harvey Readership Study - a terrific way to find out what Science readers are thinking about your advertising message.

Advertising Deadline: 6 September 1994

**Call Janis Crowley in the U.S. at (212) 496-7704 or fax to (202) 682-0816.
In Europe call (44) 0223 302067 or fax to (44) 0223 302068.**



Agracetus, Inc.

Agracetus, Inc., is a recognized leader in developing transgenic product solutions for the biopharmaceutical and fiber industries. Our PLANT BIOREACTOR PROGRAM is currently seeking an independent and creative individual to join an expanding multidisciplinary team to develop transgenic plants as a production system for therapeutic proteins and industrial enzymes.

RESEARCH SCIENTIST - PLANT GENE EXPRESSION

The successful candidate should have demonstrated experience in plant gene expression. Expertise in expression of heterologous proteins in seeds is highly desirable. A Ph.D. is required and relevant postdoctoral research is beneficial.

Agracetus has a state-of-the-art facility located near the University of Wisconsin, Madison. We offer an excellent compensation and benefits package. Send resume with three references to: Human Resources, Agracetus, Inc., 8520 University Green, Middleton, WI 53562. FAX: 608-836-9710. Equal Opportunity Employer.

The Division of Preventive Oncology of the Ontario Cancer Treatment and Research Foundation (OCTRF), through its regional centres, provides a province wide system of cancer prevention, treatment, research and education. We are currently seeking a creative and innovative individual for the new position of...

Director, Ontario Cancer Genetics Network

This is a province wide network which will develop and evaluate new genetic tests for predisposition to cancer. The network includes the eight Regional Cancer Centres of the OCTRF, as well as facilities of the Division of Preventive Oncology, which include the Division of Epidemiology, the Ontario Breast Screening Programme and the Ontario Cancer Registry.

The successful candidate will possess an MD and/or PhD degree plus a minimum of 5 - 10 years related experience. The successful candidate should be an established scientist with research interests in one or more of the fields of molecular biology, genetic epidemiology, the clinical management and counselling of individuals who carry genes that predispose to cancer, or the ethical aspects of genetic testing.

Qualified applicants are invited to forward an updated curriculum vitae and the names of three referees as soon as possible to: **Dr. N. F. Boyd, V.P. Division of Preventive Oncology, 620 University Avenue, Toronto, Ontario, Canada M5G 2L7.**

In accordance with Canadian immigration requirements, preference will be given to Canadian citizens and permanent residents of Canada. Overseas candidates may also be considered.

THE ONTARIO CANCER TREATMENT AND RESEARCH FOUNDATION

Hamilton
Kingston
London
Ottawa
Sudbury
Thunder Bay
Toronto
Windsor



MOLECULAR TOOL, INC.

Molecular Tool, Inc. is a biotechnology company located in Baltimore, Maryland committed to the development and commercialization of highly integrated, DNA-based systems for the analysis of complex genomes and genetic loci. Together with key industry partners, Molecular Tool has embarked on a significant research and product development program for the near-term implementation of a large-scale DNA analysis system and has an exciting opportunity for a Ph.D. Enzymologist to join its Biochemistry group.

BIOCHEMIST/ENZYMOLOGIST: Candidates must have a Ph.D. in biochemistry or a related field and experience in nucleic acid biochemistry and enzymology. Industrial postdoctoral research experience in DNA polymerases is a plus. The selected candidate will work with a multidisciplinary team on the development and implementation of DNA diagnostic products.

Situated on a campus of the Johns Hopkins University School of Medicine, Molecular Tool, Inc. offers a stimulating technical environment, competitive salaries, incentive program and medical insurance benefits. Interested candidates should send a resume and salary history to: **D.S., Molecular Tool, Inc., Alpha Center, Hopkins Bayview Research Campus, 5210 Eastern Avenue, Baltimore, MD 21224. EOE.**

ASSISTANT DIRECTOR/ASSISTANT SCIENTIST for Center for Neurobiology and Immunology Research (CNIR) at the University of Kansas. Duties include assisting in coordination of CNIR interactions with private sector companies, promoting technology transfer to the private sector, supervising the day-to-day work of CNIR staff, and functioning as director of Tissue Culture/Hybridoma Laboratory. Required Qualifications: Ph.D. in Neurobiology and Immunology; 2 yrs. post-doctoral experience in the biosciences, biotechnology or pharmaceutical arena; and experience in management of laboratory facilities and scientific personnel. Preferred: Experience as independent investigator in cell culture, monoclonal antibodies, neurotoxicity screening, protein purification, and/or cDNA cloning; experience in technology transfer to the pharmaceutical or biotechnology industry and business negotiations. Full time, 12 months, annually renewable position. Salary range: \$45,000 to 50,000/year plus fringe benefits. Submit CV, academic transcripts and three letters of recommendation by August 8, 1994 to Dr. E.K. Michaelis c/o Anette Lundsgaarde, Higuchi Biosciences Center, University of Kansas, West Campus, 2099 Constant Avenue, Lawrence, KS 66047-2535. 913-864-5183. The University of Kansas is an equal opportunity/affirmative action employer.

University of Minnesota Cancer Center Endowed Chair in Breast Cancer

The University of Minnesota Cancer Center, in collaboration with the Departments of Medicine and Surgery at the University of Minnesota is establishing a new senior endowed faculty position in breast cancer research. The chosen individual will be named to the Tickle Chair in breast cancer. The individual will be responsible for providing leadership to the University's breast cancer program and developing innovative translational clinical programs in breast cancer detection, prevention and treatment. Candidates must have a medical degree, experience in medical or surgical oncology, and a proven record of high quality research (as shown by acceptance for publication of papers in quality, peer-review journals. Candidates will be expected to develop a strong research program leading to external funding). The academic appointment will be in a University department suited to the skills of the successful candidate. Strong emphasis will be placed upon the candidates' ability to interact with other members of the group, the Cancer Center and Department, and the University community. Teaching and advising will be done in the appropriate graduate program(s) and in the Department(s) in which the primary appointments are held.

Please send a curriculum vitae, a brief research statement, and three letters of recommendation to: Gordon Ginder, M.D., Chair, Search Committee, University of Minnesota Cancer Center, Box 806, 420 Delaware Street S.E., Minneapolis, MN 55455-0392, U.S.A. The last date for receipt of applications is November 1, 1994.

The University of Minnesota is an equal opportunity educator and employer.

POSITIONS OPEN

MOLECULAR BIOLOGIST. Research focus is on genes encoding membrane receptors, adhesion molecules, and key enzymes involved in transmembrane signaling, and synthesis/degradation of carbohydrates and lipids. Position requires (1) solid experience in cloning, characterization, and expression/transfection of genes in eukaryotic cells; and (2) close collaboration with other scientists on regulatory mechanisms of these genes for expression of receptors and enzymes involved in regulation of cell adhesion and transmembrane signaling. Salary and job title will depend on qualifications and experience. The Institute is affiliated with the University of Washington. Good fringe benefits. Send cover letter, curriculum vitae, and three reference letters to: **Stephen Anderson, Ph.D., The Biomembrane Institute, 201 Elliott Avenue West #305, Seattle, WA 98119-4230.** No telephone calls or faxes. *Equal Opportunity Employer.*

TERRESTRIAL ECOLOGIST

We seek an experienced ecologist to coordinate and conduct research and develop support for long-term ecological research at the Idaho National Engineering Laboratory. Universities assist in these activities. Candidates should have a Ph.D., success in obtaining support from federal agencies, excellent verbal and written communication, experience in semiarid systems and education/experience in one or more areas: plant ecology, systems ecology, radioecology, hydrology, pollutant monitoring or research, ecological risk assessment; US citizenship required. A letter, résumé including 1 to 3 pages of research accomplishments, transcripts and 3 letters of reference to: **Dr. Doyle Markham, Environmental Science & Research Foundation, P.O. Box 51838, Idaho Falls, ID 83405.** FAX: 208-525-7036.

BIOCONTROL TECHNOLOGY, INC. the leader in non-invasive glucose measurement is seeking a **BIO-CHEMIST/BIOLOGIST/BIO PHYSICIST.** The successful candidate will be responsible for characterizing, modeling, and understanding skin with special emphasis on the optical properties of skin. Candidates must have strong backgrounds in: **NIR spectroscopy, physiology, chemistry, and experimental methods.** In addition, the candidate should have a Ph.D. or equivalent and experience in several of the following areas: Optics, Monte Carlo Modeling, Diffuse reflection, Bio-Chemistry, Raman Spectroscopy, Biochemistry, Anatomy, and Physical Chemistry. Interested candidates should FAX: (412) 349-8610, or mail a cover, salary requirements, and résumé to: **Human Resources, Biocontrol Technology, Inc., 300 Indian Springs Road, Indiana, PA 15701.** *Equal Opportunity Employer. Male/Female/Disabled/Veterans.*

POSTDOCTORAL RESEARCH ASSOCIATE IN MOLECULAR BIOLOGY position available August 1, 1994, for two years. The incumbent will work on peptide gene expression in baculovirus vector systems, characterization of hormone receptors in insects and isolation and characterization of an insect specific virus. Salary: \$35,000 plus benefits. Must be a U.S. citizen. Please send your curriculum vitae to: **Dr. Ashok K. Raina, Bldg. 306, Room 313, BARC-East, Beltsville, MD 20705-2350.** Telephone: 301-504-9396.

COMPUTER MARKETPLACE

Free Video

See how this software builds bibliographies and organizes your references. PC or Mac.

1-800-554-3049

(510) 559-8592 Free offer good in U.S. only

EndNote

Bibliographic Software



Circle No. 16 on Readers' Service Card

MARKETPLACE

Easiest Way to Screen for di-, tri-, or tetranucleotide Repeats

Oligo Scan - 13 premade oligos to screen clones. Order from BIOS (800) 678-9487

Special Offer

Each Oligo - \$20.00

Oligo Scan Kit - \$220.00

BIOS
LABORATORIES

Circle No. 48 on Readers' Service Card

Reliable Human P1 Library Screening

Positive clones are screened and confirmed by hybridization!

Introductory Special

Just - \$995.00!!!

Guaranteed Accuracy • No Artifacts

Order from BIOS (800) 678-9487

BIOS
LABORATORIES

Circle No. 47 on Readers' Service Card

CUSTOM DNA SYNTHESIS

PURE & SIMPLE

Price **\$2¹⁹**
as low as per base plus set up

- Superb Technical Support
- Impeccable Quality
- World's Fastest Service

MIDLAND

THE UNDISPUTED #1 CUSTOM DNA SYNTHESIS SERVICE

THE MIDLAND CERTIFIED REAGENT COMPANY

3112-A West Cuthbert Avenue
Midland, Texas 79701

Phone 1-800-247-8766 FAX 915-694-2387

Circle No. 2 on Readers' Service Card

DNA

DESIGNER LABELS:
Biotin, FITC, Acridine,
DNP, Alk. Phos. & more...

\$2 50 base
1st class service

300nm purified
50 OD's (~200 µgs)
Gel Picture Q. C.
Synthesis Report
24 hour Shipping
Substrate kits available.

BIO-SYNTHESIS

1-800-227-0627 Fax: 214-420-0442

Circle No. 10 on Readers' Service Card

CUVETTES PLUS™

Low Cost, Disposable
Electroporation Cuvettes
Each individual sterile package includes
a pipette for easy sample handling

DTX

1-800-289-2465
FAX 619-597-9594

Circle No. 19 on Readers' Service Card

MARKETPLACE

PHOENIX PHARMACEUTICALS, INC.
The Peptide Elite

CUSTOM PEPTIDES

\$25.00/A.A. (In Just 5 Days!)

ANTIBODY PRODUCTION

\$1,000.00 (conjugation included)

800 988-1205 FAX: 415 988-9221

Circle No. 28 on Readers' Service Card

CUSTOM ANTIBODIES TO PEPTIDES & PROTEINS

Purification, Conjugation and ELISA Titration Available

HTI

HTI BIO-PRODUCTS, INC.

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

Circle No. 17 on Readers' Service Card

KEYSTONE Laboratories, Inc.

The Complete
Oligonucleotide
Company

OLIGONUCLEOTIDES

Volume orders of 200 - 500 total bases

\$2.50 per base

No set-up fee; shipped in 24hrs.

Tel. 1-800-788-4DNA • Fax 1-800-786-4DNA

Circle No. 5 on Readers' Service Card

HUMAN ENDOTHELIAL CELLS VENOUS, ARTERIAL, and MICROVASCULAR SYSTEMS

True pools of >50 donors, frozen @ <6 CPD *in vitro*,
>500,000 cells, complete CS growth medium system
characterized and tested for cytokine-stimulated leuko-
cyte adherence, negative for HIV-1 DNA by PCR

800-697-1211

cell systems

Circle No. 31 on Readers' Service Card

Custom PEPTIDES

\$20 - \$28/Residue (Discount for 1st Order)

Peptide Antibody: \$200/Rabbit

Peptide Library construction & Screening

No Setup Charge, Free HPLC-/Amino Acid Analysis

Latest Technology Making Peptides with High Quality/Lowest Cost

1-800-400-0070 (Tel), +1-713-663-7163 (Fax)

TANA LABORATORIES, L.C. (Worldwide Service)

Circle No. 35 on Readers' Service Card

ABS Bioreagents™

Custom Receptor Binding,
Enzyme, and RNA Preparations
Fast, Cost-Effective Service
Analytical Biological Services Inc.
(800) 391-2391

Circle No. 45 on Readers' Service Card

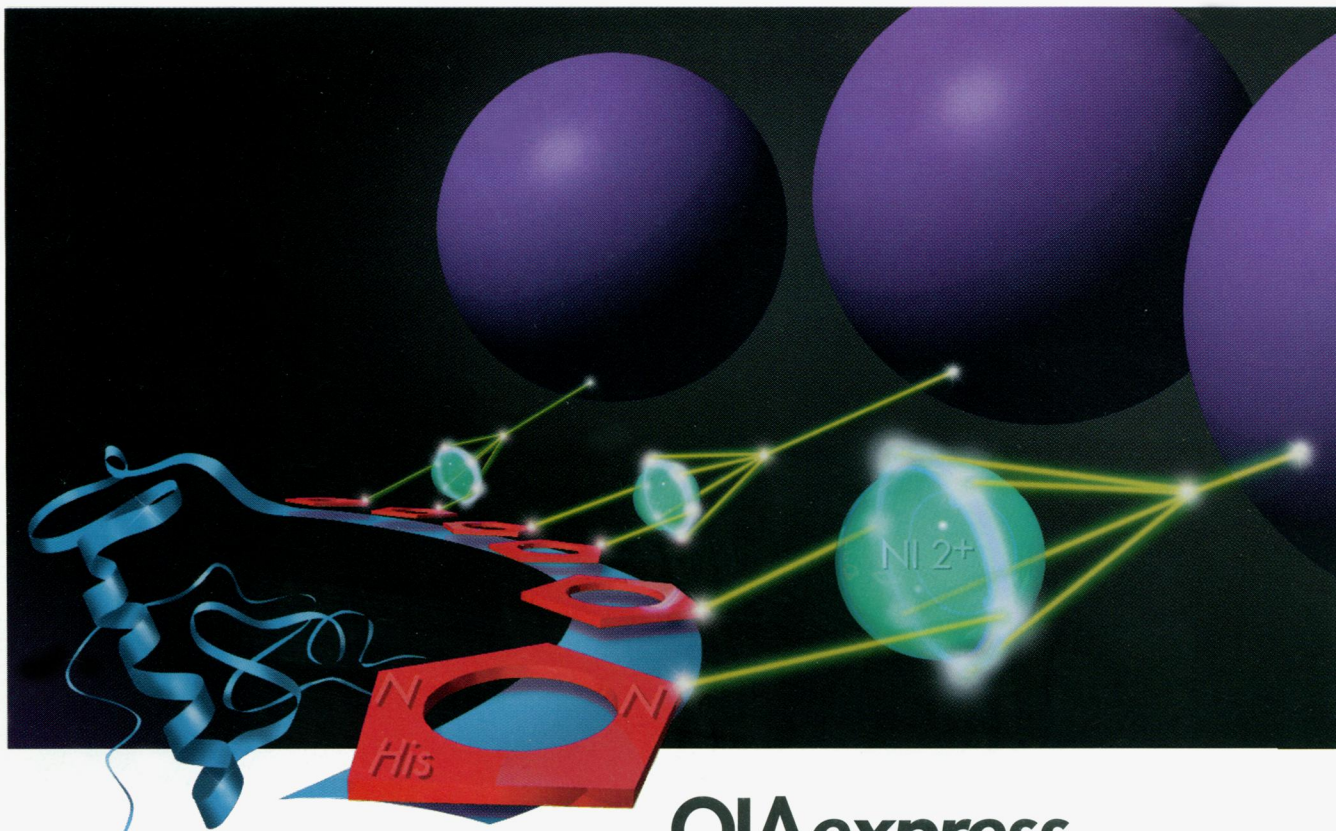
Express Peptides

**5 mg in 5 days
\$25 per residue**

Research Genetics

1-800-533-4363

Circle No. 4 on Readers' Service Card



QIAexpress

Protein Purification Made Simple

The QIAexpress System makes expression and purification of recombinant proteins simple. How simple? With the system, you can efficiently purify proteins:

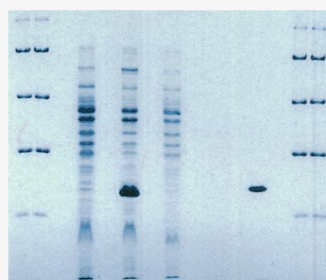
- in just one step.
- from dilute solutions.
- from inclusion bodies.
- under native/denaturing conditions.

The system uses the strong interaction between histidine and Ni^{2+} ions for purification of recombinant proteins by metal chelate chromatography.

QIAGEN's exclusive Ni-NTA resin is specially designed to bind Ni^{2+} ions more tightly than other metal chelating resins, and brings you enhanced purification power and binding capacity.

Simply add a 6xHis tag to the N- or C-terminus of the recombinant protein sequence using the high level

QIAexpress bacterial expression system, or any other expression system you choose. You are now ready to take advantage of the purification power of Ni-NTA resin.



Purification of DHFR from bacteria (denaturing conditions). Lane 1: Uninduced cells; Lane 2: Induced cells (2 mM IPTG); Lane 3: Column flow-through, pH 8.0; Lane 4: Wash fraction, pH 6.3; Lane 5: Pure eluted protein, pH 5.9.

The latest addition to the QIAexpress system is our new **Ni-NTA Spin Kit** for protein miniprep. Use it to quickly screen clones for expression, or to purify small amounts of protein.

And QIAexpress is more than just a great way to express and purify proteins. The 6xHis tag is small, poorly immunogenic, and rarely has to be cleaved from the protein after purification.

To find out more about how simple protein purification can be, call QIAGEN

or your distributor soon and ask about QIAexpress System and Ni-NTA resin.

Nothing could be more simple.

QIAGEN GmbH: Max-Volmer-Straße 4, 40724 Hilden, Germany, Orders (0)2103-892-230, Fax (0)2103-892-222, Technical Service (0)2103-892-240
QIAGEN Inc.: 9600 De Soto Avenue, Chatsworth, CA 91311, USA, Orders 800-426-8157, Fax 818-718-2056, Technical Service 800-DNA-PREP (800-362-7737)
DISTRIBUTORS: **AUSTRALIA:** BRESATEC Ltd. (08)-234 2644 **AUSTRIA:** BIO-TRADE (1)-889 18 19 **BENELUX:** Westburg B.V. NL: (033)-950094 B: (078)-119815 (toll free) **DENMARK:** Struers KEBO (43)-86 87 88 **FINLAND:** KEBO Lab Oy (0)-804 4900 **FRANCE:** Coger (1)-45-32-35-17 **GREECE:** Bio-Analytica Ltd. (01)-6436138 **HONG KONG/CHINA:** Amwal International Ltd. (852)-724 5082 **INDIA:** Genetix (11)-546 7637 **ISRAEL:** BIO-LAB Laboratories Ltd. (02)-524447 **ITALY:** Genenco (M-Medical srl) (055) 5001871 **JAPAN:** FUNAKOSHI Co., Ltd. (03)-5684-1620 **KOREA:** LRS Laboratories, Inc. (02) 924-8697 **NORWAY:** KEBO Lab 22903000 **PORTUGAL:** IZASA PORTUGAL, LDA. (1)-7570740 **RSA:** WHITEHEAD SCIENTIFIC SUPPLIES (021) 981 1560 **SINGAPORE:** TIBS Trading Pte Ltd. (Biotech Branch) 292 9783 **SPAIN:** IZASA S.A. (91)-663-05-00 **SWEDEN:** KEBO Lab (08) 621 34 00 **SWITZERLAND:** KONTRON Instruments AG (01)-733-5-733 **TAIWAN:** Formo Industrial Co., Ltd. (02)-736-7125

Circle No. 1 on Readers' Service Card



Custom Genotyping

• Fast

• Economical

• Confidential

With the opening of the Research Genetics Genotyping Center, all investigators now have access to high throughput genotyping without having to give up control of their work. Typical genotyping projects involving hundreds of markers can be completed in under 60 days. Complete results including both the raw genotyping data and computer files suitable for use by linkage software are provided.

To support this new center, we have produced over 1,400 different dye-labeled microsatellite markers for use on the Applied Biosystems Model 373 Sequencer. A genome wide screening set, made up of a subset of these markers, is currently being tested. Even finer mapping can be performed using isotopically labeled markers from our selection of over 4,000 human microsatellite markers or custom markers may be developed.



Prices range from \$2.50 to \$3.50 per genotype depending on the project. There is a setup fee of \$10 per DNA sample to cover quantitating, aliquoting, initial testing and archiving.

Research Genetics

2130 Memorial Pkwy, SW • Huntsville, AL • 35801

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

Circle No. 3 on Readers' Service Card