

# Spending Hours on PCR† Specimen Prep? If You Could Reduce This To Minutes, Would You?

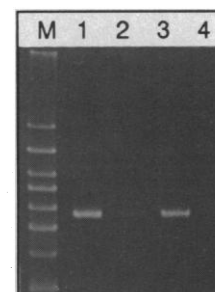
Now You Can Simplify DNA Isolation with *GeneReleaser™*

## *GeneReleaser* Features:

- Minimal sample required, i.e. 1µl blood
- Minimal "hands on" procedure
- Ideal for batch preparations
- Performed directly in .5ml tubes
- Performed directly on thermocycler
- Proceed directly to amplification
- Suitable for samples as diverse as:  
whole blood, serum, plasma, urine,  
sputum, plants, and many others.

Amplification of HLA DRB  
producing an @272 bp  
product.

M = BioMarker™ Low  
1 = GeneReleaser treated 120  
day old whole blood stored at  
4°C.  
2 = Same as 1 - GeneReleaser.  
3 = GeneReleaser treated 120  
day old whole blood stored at  
-20°C.  
4 = Same as 3 - GeneReleaser

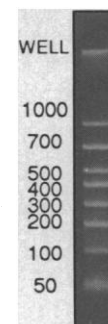


*GeneReleaser™* 400-1600 assay size Catalog No. GR-1 Circle Reader No. 12

## Accurately Size Your PCR Products With *BioMarker™ Low*

## *BioMarker* Features:

- Ideal band sizes
- Accurate determination of product size
- Estimation of product yields
- Equal band intensities
- Exposed 5'OH groups for kinasing
- Suitable for HPLC or CE standards
- Biotinylated and Digoxigenin versions



*BioMarker™ Low* 50 Assay size Catalog No. M-1 Circle Reader No. 13

## 10 Minutes to Protein Free DNA with *EnZap™*

## *EnZap* Features:

- Rapid removal of proteins
- No phenol/chloroform
- 99+% protein and enzyme removal
- 90+% DNA/RNA recovery
- Batch preparations
- Suitable for Plasmid or Phage prep
- Genomic preps
- DNase and RNase free

Alkaline Phosphatase removal		
Units AP per 100µl	After EnZap O.D. 405nm	% Removal
5 Units	.010	~ 100%
2.5 Units	.010	~ 100%
1.2 Units	.010	~ 100%
0 Units	.010	NA

*EnZap™* 5, 25 and 100 Assays Catalog No.'s EZ-5; EZ-25; EZ-100 Circle Reader No. 14

PHONE TOLL FREE: 1-800-235-8938

FAX: 1-615-896-4837

International Call: 615-896-7353 JAPAN: Funakoshi Co., Ltd. TEL: 81-3-5684-1622

BioVentures, Inc. P.O. Box 2561 Murfreesboro, TN 37133-2561

† The PCR process is owned by Hoffmann-La Roche, Inc.

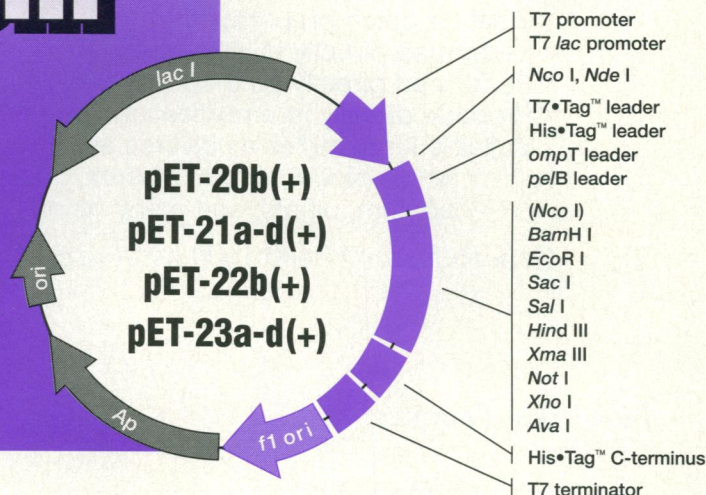
GeneReleaser, BioMarker and EnZap are trademarks of BioVentures, Inc.



# For protein expression there is no comparison

# the pET System

The pET System has gained wide acceptance as the premier expression system for producing recombinant proteins. Other systems have limited cloning and expression options, "leaky" promoters that cause target gene instability, and/or require expensive purification schemes. Novagen has expanded the pET System to include new multifunctional vectors and companion products that make it the most complete and powerful system available.



## Powerful

Highest expression levels, tightest control; many genes that are "unclonable" in other systems have been successfully cloned and expressed in the pET System

## Versatile

- Choice of peptide leaders:
  - *ompT* or *pelB* for protein export
  - T7•Tag™ sequence for immunoassay of expressed proteins
  - N-terminal or C-terminal His•Tag™ sequence for rapid, economical affinity purification
- Expanded polylinker containing cloning sites in all three reading frames
- Choice of expression controls and host strains to optimize expression levels
- f1* origin of replication for mutagenesis and sequencing with single stranded templates

## Rapid

- Convenient restriction sites for subcloning from other vectors
- One-step purification of target proteins without antibodies

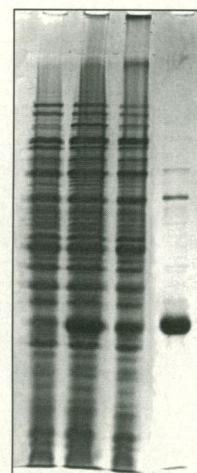
## Complete

Variety of system configurations plus many supporting products:

- Individual vector DNAs (over 30 available)
- T7•Tag™ Antibody Kit
- His•Bind™ Purification Resin and Buffer Kit
- Restriction Grade Thrombin
- Competent Cells of host strains
- Primers for sequencing and amplification
- λDE3 Lysogenization Kit
- λEXlox™ cDNA Cloning System and PhageFinder™ Immunoscreening Kit
- Sequences on diskette

## ONE-STEP AFFINITY PURIFICATION

uninduced cells  
induced cells  
column flow-through  
column eluate



Coomassie stained gel



VISIT OUR BOOTH (NO. 321)  
AND WORKSHOP AT  
SCIENCE INNOVATIONS '92

# Novagen

Novagen, Inc.  
597 Science Dr.  
Madison, WI 53711

**800-526-7319**  
Fax: 608-238-1388

**Australia** Medos Co. Pty. Ltd.  
03-808-9077

**Canada** Inter Medico  
800-387-9643

**Germany** AGS Applied Genetechnology Systems  
06221-831023

**Israel** Bio-Lab Laboratories, Ltd.  
02-524447, 536885

**Italy** AMS (Italia), SRL  
2-8940-8380

**Japan** Takara Shuzo Co., Ltd.  
075-241-5167

**Sweden** AMS (Sweden) Ltd.  
8-620-02-32

**Switzerland** AMS (Switzerland)  
91-505-522

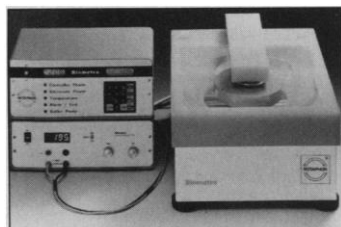
**Taiwan** Interlab Co., Ltd.  
02-751-5930

**United Kingdom** AMS (UK) Ltd.  
0993-706500



## Rotating Field Electrophoresis

Rotaphor is an instrument for rotating field electrophoresis separation of megabase DNA fragments. The unit features two main and six secondary electrodes mounted in a rotating disk above



a stationary gel. The design offers a wide choice of electrical field angles. The controller stores up to ten programs and includes temperature regulation plus a buffer circulation pump. Biometra. Circle 86.

## Graphics and Data Analysis Software

Origin 2.0 is an update of a scientific graphics and data analysis program that runs under Microsoft Windows. The main new feature is an approach called Active Graphic Objects, in which objects such as text labels, lines, arrows, and pictures can be used as building blocks, moved, and redrawn with the click of a mouse. Other new features include polar plots, waterfall plots, contour plots, and gray scale plots. Data import capability has been expanded to include WK1, WKS, WK3, Dbase, Excel, Quattro Pro, Symphony, Paradox, and ASCII file formats. In addition to plot windows and worksheet windows, version 2.0 adds matrix windows for manipulating two-dimensional data. Microcal Inc. Circle 87.

## Monoclonal Antibodies

Four new products have been added to a line of surface and cytoskeletal monoclonal antibodies (MAbs). InnoMAbCD44, supplied in conjugated and un-

conjugated form, is used primarily as cell surface markers for detecting metastatic cancer, leukemia, non-Hodgkins lymphomas, and various lymphoid malignancies. InnoMAbCD45RO is for labeling activated T cells in drug therapy and in immunological and oncological studies. InnoMAb Fodrin and InnoMAb Ankyrin have application in aging studies. IBL Research Products Corp. Circle 88.

A new MAb reacts specifically with taxol in the presence of structurally related natural congeners, including cephalomannine, baccatin III, and 10-deacetyl baccatin III. Hawaii Biotechnology Group. Circle 89.

## Genomic DNA Isolation Kit

The DNA Multiprep kit provides a novel procedure for the simultaneous processing of multiple genomic DNA samples from whole blood, mammalian cells, and select tissues. The entire procedure is performed in one 96-well plate and entails adding three reagents to the samples with a multichannel pipette. The DNA is bound to the surface of the DNA Multiprep plate well, and appropriate buffers can be added for use in subsequent procedures, such as restriction enzyme digest, Southern (DNA) blot, or polymerase chain reaction. DNA prepared with the kit is suitable for large-scale screening, forensic testing, medical diagnostics, and reverse genetics. Biotech Laboratories. Circle 90.

## Ultrafiltration Probes for in Vivo Sampling

In vivo ultrafiltration probes provide protein-free, small-volume samples representing the concen-

tration of chemicals in the extracellular space. The samples are suitable for analysis by liquid chromatography or mass spectrometry. The probes can monitor most low molecular weight, endogenous substances such as glucose, lactate, electrolytes, metabolites, and small peptides. The probes are designed for use in soft, peripheral tissues. Unlike techniques such as microdialysis or perfusion, there is no requirement for a pump or other delivery vehicle. The technique is inexpensive and portable for larger animals. Repeated sampling from the same conscious, free-moving animal can be made over periods from a few hours to months. The devices have been tested in mice, rats, dogs, and cats. Bioanalytical Systems Inc. Circle 91.

## Incubator with Stirrer

The SI 40 Magnetic Stirrer Incubator is the first bench-top incubator to incorporate a built-in magnetic stirrer. The unit can



accommodate vessels up to 280 mm in height, including culture flasks, and stir them at any set speed between 10 and 110 rpm. A major feature of the stirrer is electronic feedback speed control, which maintains the set speed even with changes in liquid viscosity. The incubator can

maintain any temperature from 5° to 65°C, within 0.1°C fluctuation. Stuart Scientific. Circle 92.

## Literature

*Rapid Microbial Testing with Epi-fluorescent Microscopy* describes practical methods of sample collection, sample staining, slide preparation, cell counting, and controls. Poretics Corp. Circle 93.

*Hamilton HPLC Application Catalog* makes locating applications, chromatograms, and literature references quick and easy for polymeric reversed-phase, ion and anion exchange, ion exclusion, and carbohydrate chromatography columns. Hamilton Co. Circle 94.

*Automated DABSYL Derivatization of Amino Acids Using a New Concept in LC Autosamplers* is an application note. Spectra-Physics. Circle 95.

*VECTASTAIN: The Superior Immunoperoxidase Staining Procedure* is a technical brochure on the ABC family of products for immunohistochemical staining, in situ hybridization, transfer blots, and enzyme immunoassays. Vector Laboratories. Circle 96.

*Janssen Chimica Acta* contains original articles on advances in organic chemistry and new products and services. Janssen Chimica. Circle 97.

*Biotrak Eicosanoid and Cyclic Nucleotide Enzyme Immunoassay Systems* is a full-color brochure for these techniques in cell signaling research. Amersham International. Circle 98.

*Millipore Bioforum* is a new technology newsletter for life scientists that contains technical articles, application studies, and product information. Millipore. Circle 99.

*Reaction Kinetics: pH-Stat Analysis with the TitrLab Titration System* is a 20-page booklet that includes a discussion of the application of the pH-stat technique for the determination of lipase, cholinesterase, and protease activity, and of the measurement of the neutralizing capacity and reaction times of antacids. Radiometer America. Circle 100.

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. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.
- **Mail or FAX materials to:**  
**Science Classified Advertising**  
 1333 H Street, N.W., Room 814  
 Washington, DC 20005  
 Telephone: 202-326-6555  
 FAX: 202-682-0816
- **Rates:** Ads are \$42 per line; \$420 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. If you would like *Science* to give estimated cost, indicate on letter.
- **Ads from Outside the U.S.:** Prepayment made in U.S. dollars by checks drawn on U.S. banks is required.
- **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 information about fractional display ads (all ads 1/8 page and larger) and all Marketplace listings, contact:  
**Science Classified Advertising**  
**Deborah Cummings**  
 Telephone: 202-326-6541

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

**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, national origin, 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

**ASSISTANT PROFESSOR OF BIOCHEMISTRY.** Department of Chemistry, Georgetown University, has a tenure-track position beginning spring or fall 1993. The department values excellence in undergraduate and graduate teaching and is committed to high quality, active research. Ph.D. and postdoctoral experience required. Send curriculum vitae, selected reprints, statement of research plans, and names and addresses of three references we may contact directly, to: **Professor David C. H. Yang, Chemistry Department-Y, Georgetown University, Washington, DC 20057-2222. An Affirmative Action/Equal Opportunity Employer.**

### ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY AND MOLECULAR GENETICS HARVARD MEDICAL SCHOOL

The Department of Microbiology and Molecular Genetics seeks applications for the position of Assistant Professor. Preference will be given to those candidates who use microbial systems, such as viruses, bacteria or yeasts, to study fundamental problems in cell biology. Topics might include transmembrane signalling; protein localization to subcellular compartments; membrane trafficking, including lipid cycling; lipid biosynthesis, as it relates to membrane function; membrane protein structure and function; cell division from the perspective of the membrane and other similar topics. The applicant should possess a Ph.D. or M.D. degree and have at least two years of postdoctoral training. The successful candidate will conduct independent research and participate in teaching graduate or medical students. Applicants should send their curriculum vitae, reprints, a short summary of research interests, and the names of references to: **Dr. Bernard Fields, Chair, Department of Microbiology and Molecular Genetics, Harvard Medical School, 200 Longwood Avenue, Boston, MA 02115. Harvard Medical School is an Equal Opportunity Employer. Women and minority candidates are encouraged to apply.**

### ASSISTANT PROFESSOR MOLECULAR VIROLOGY AND BIOCHEMISTRY UNIVERSITY OF WISCONSIN-MADISON

The Institute of Molecular Virology and Department of Biochemistry invite applications for a joint, tenure-track position at the rank of assistant professor. Candidates should demonstrate interests and expertise in molecular virology. Within this broad area, emphasis will be placed on selecting an outstanding individual with research interests relevant to the mission of the Department of Biochemistry. Responsibilities will include teaching in the Biochemistry Department curriculum, participating in one or more campus multidisciplinary degree programs such as virology or cell and molecular biology, supervising graduate students, and developing an independent research program. Salary will be on a 12-month basis and will be commensurate with the candidate's experience.

Applicants should submit (1) curriculum vitae, (2) statement of research interests, and (3) three letters of reference by 1 September 1992 to: **Dr. Paul Ahlquist, Search Committee Chair, Institute for Molecular Virology, University of Wisconsin, Madison, WI 53706; telephone: 608-262-4540.**

*The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates and all other qualified persons are encouraged to apply. Under Wisconsin statutes, names, titles, and addresses of applicants and nominees may be subject to public release upon request.*

### ASSISTANT PROFESSOR PROTEIN BIOCHEMIST

Tenure-track position in the Division of Biochemistry at the University of North Texas, located in the Dallas-Ft. Worth Metroplex. Candidates must have Ph.D. and postdoctoral experience and show promise of developing an independent research program in protein structure/function correlations, enzyme kinetics, transport or a related field. Responsibilities will be approximately 75% research/25% teaching at the Ph.D./M.Sc. levels in the area of macromolecular structure/function. Submit curriculum vitae, including names of three references who may be contacted to: **Dr. Ruthann A. Masaracchia, Division of Biochemistry, Box 13048, University of North Texas, Denton, TX 76203. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### ASSISTANT PROFESSOR TENURE TRACK MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) DEPARTMENT OF CHEMISTRY

The Department of Chemistry invites applications for a tenure-track position in Inorganic Chemistry. While the preferred level of appointment is at the rank of Assistant Professor, applications for appointment at more senior levels are also welcome. Outstanding individuals with a strong commitment to research and teaching are encouraged to apply by arranging to have curriculum vitae, a brief description of research plans, and three letters of recommendation sent to: **Professor Robert J. Silbey, Department of Chemistry, 18-399, Massachusetts Institute of Technology, Cambridge, MA 02139-4307 by October 15, 1992.**

*MIT is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

The Central Blood Bank in conjunction with the University of Pittsburgh Medical Center's Department of Pathology is seeking Ph.D. applicants for a faculty position at the **ASSISTANT PROFESSOR** level. The applicant should have demonstrable broad-based experience in conducting or producing original laboratory based research in molecular biology with preference to medical laboratory applications. The major function will be the organization and supervision of a molecular diagnostics laboratory to test for blood borne pathogens. Please provide curriculum vitae and names and addresses of three references to: **Dr. David L. Cooper, Director, Division of Molecular Diagnostics, Department of Pathology, University of Pittsburgh School of Medicine, 723B Scaife Hall, Pittsburgh, PA 15261. Equal Opportunity/Affirmative Action Employer.**

The Department of Microbiology and Immunology at Wright State University invites applications from **ASSISTANT PROFESSOR** level candidates with interests in the molecular aspects of immunology for a 12 month non-tenure-track appointment. Applicants must have a Ph.D. or equivalent degree or expect to receive degree by the start date. The Department is located within the School of Medicine and the College of Science and Mathematics. Teaching responsibilities include medical and Ph.D. level graduate programs. Send curriculum vitae, names of three references, and a statement of research interests to: **Neal S. Rote, Ph.D., Professor and Chair, Department of Microbiology and Immunology, 409 Oelman Hall, Wright State University, Dayton, OH 45435.** Review of applications will begin August 1, 1992 and continue until a suitable candidate is identified. The final selection will be based on the candidate's potential for obtaining extramural funding, research compatibility with existing funded departmental research programs and teaching ability. *We encourage applications from traditionally underrepresented groups protected under federal legislation. Wright State University is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR VIROLOGIST

The Department of Virology and Immunology and the Center for AIDS Research at Southwest Foundation for Biomedical Research invites applications for an **ASSISTANT OR ASSOCIATE SCIENTIST** faculty level position. Candidates should have a Ph.D. or D.V.M. with several years of experience in DNA recombinant technologies associated with DNA or RNA viruses and will be expected to maintain an independent competitive research program. We are seeking individuals who will complement the existing AIDS programs focusing on both HIV and SIV nonhuman primate models. Opportunities exist for collaborations with five other scientists involved in AIDS research. These areas focus on viral pathogenesis, immunology, vaccines, and therapeutics. Other programs in this department focus on hepatitis viruses, herpes B virus, and their associated nonhuman primate models. The Southwest Foundation for Biomedical Research is a nonprofit, private research institution that supports 45 scientists. The Foundation has extensive nonhuman primate resources which include baboons, chimpanzees, and macaques. Candidates should send curriculum vitae, brief summary of research goals, and the names and addresses of three references to: **Personnel Director (216), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78228-0147. An Equal Opportunity Employer, M/F.**

# Postdoctoral Opportunities.

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

## **Molecular Biology of HIV** **Ronald L. Felsted, PhD**

Two positions are available to study HIV transcriptional regulation and retroviral assembly mechanisms. Studies will focus on cloning and characterizing transcriptional factors, mutagenesis, and mechanisms of viral protein subcellular targeting and intracellular interactions. Experience in biochemistry, protein and/or molecular biology and the study of retroviruses is preferred. Laboratory of Biological Chemistry (OE-17), NCI, Building 37, Room 5D02.

## **Ocular Therapeutics** **Peter Kador, PhD**

Two positions are available to aid in the development of therapeutic methodologies and agents for the treatment of ocular diseases:

**Anatomist/histopathologist** to investigate drug effects on ocular tissues. Experience in animal experimentation and isolation of retinal capillaries by trypsin digestion technique is desired.

**Chemist** to isolate and identify natural products of potential biological interest. A strong background in purification techniques, structural elucidation, and molecular biology is desired.

Candidates for both positions must be U.S. citizens or permanent residents. Laboratory of Ocular Therapeutics (OE-17), NEI, Building 10, Room 10B11.

## **Protein Structure and Biomolecular Recognition** **Ruth Nussinov, PhD/Jacob V. Maizel, PhD**

A new computer-vision and robotics-based technique has been developed for detection of 3-D substructural motifs in proteins and for protein and drug docking and new applications for this technology are being sought. Supercomputing facilities are available, including a CRAY, Convex and new facilities for molecular graphics. A recent degree or equivalent experience in computational chemistry, physical chemistry or biophysics is preferred. Laboratory of Mathematical Biology (OE-17), NCI-FCRDC, P.O. Box B, Building 469, Room 151, Frederick, Maryland 21702-1201.

## **Retinal Gene Expression** **T. Michael Redmond, PhD**

The interdependence of the retinal pigment epithelium (RPE) and the retinal photoreceptor cells in development, function and disease is being studied at the molecular level. Current projects include characterization (cloning, genomic analysis, etc.)

of novel RPE-expressed genes and functional and immunological analysis of over-expressed gene products. A background in molecular biology and/or protein biochemistry is preferred. Laboratory of Retinal Cell and Molecular Biology (OE-17), NEI, Building 6, Room 339.

## **Signal Transduction/Immunology** **Reuben Siraganian, MD, PhD**

The pathways of receptor-mediated signal transduction in basophils, mast cells and other inflammatory cells are being studied. Emphasis is on the role of phosphorylation in intracellular signaling and regulation of secretion. The substrates and the effector molecules involved in this process are being characterized using biochemical and molecular biological techniques. Laboratory of Immunology (OE-17), NIDR, Building 10, Room 1N106.

## **Stem Cell Technology** **Eric Wawrousek, PhD**

Development of the ocular lens in the mouse is being studied by functionally inactivating some of the genes encoding lens crystallins. We are performing "knockout" experiments in embryonic stem cells to generate chimeric mice to investigate the role of crystallins in lens development and their functions in non-lenticular tissues. Candidates must be U.S. citizens or permanent residents. Laboratory of Molecular and Developmental Biology (OE-17), NEI, Building 6, Room 2A04.

## **Additional Postdoctoral Fellowship Opportunities**

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference via modem (1,3014922221 or 1,8003582221). The settings for modem access are "7,Even,1". When connected to NIH, type in ",vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

Those interested in receiving information on other postdoctoral opportunities in NIH research laboratories, as well as information on clinical training opportunities, may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

## **To Apply**

If you hold a PhD, MD, or equivalent degree and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



# National Institutes Of Health

9000 Rockville Pike, Bethesda, MD 20892  
Equal Opportunity Employer

**UNIVERSITY OF KUWAIT  
FACULTY OF MEDICINE  
HEALTH SCIENCE CENTRE**

Pre-clinical and Clinical Appointments

(Professor & Chairman/Professor/Associate Professor/Assistant Professor)

Applications are invited for the following appointments in the Faculty of Medicine:

Pathology, Pharmacology, Psychiatry (Preference will be given to Arabic Speaking Candidates), Radiology, Organ Transplantation,

**Anatomy:** Gross Anatomy  
(Candidates should have sufficient experience in teaching of topographic anatomy in addition to one other discipline of anatomy, e.g. Histology, Embryology, Neuroscience).

**Biochemistry:** Molecular Biology  
Nutrition/Endocrinology  
Membranes

**Microbiology:** Clinical Microbiology  
Clinical Virology  
Clinical Parasitology  
Clinical Immunology  
Molecular Microbiology

**Physiology:** Respiratory Physiology  
Gastrointestinal Physiology  
Renal/Acid-Base Physiology  
Endocrine Physiology  
General Physiology

**Gynaecology & Obstetrics:** Reproductive Medicine  
Gyn. Oncology  
Perinatology  
Obst. & Gyna.

**Medicine:** Consultant Specialists

**Nuclear Medicine:** Nuclear Medicine Physicians  
Nuclear Medicine Physicist  
Radioimmunoassay Scientist

**Paediatrics:** Paediatric Nephrology  
Infectious Diseases  
Clinical Genetics  
Paediatric Cardiology  
Emergency Medicine  
Paediatric Critical Care Medicine  
Pulmonary Medicine  
Neonatologist  
Specialist in Paediatric Allergy & Clinical Immunology

**Surgery:** Vascular Surgery  
Neurosurgery  
Urology

## REQUIREMENTS FOR APPOINTMENT:

**Qualifications:** Applicants should possess a Ph.D. or an equivalent high professional qualification i.e. FRCS/MRCP/MRCOG/MRCPath/Md/American Board in their respective speciality and have conducted and published research in their field.

**Experience:** Professors — 14 years (4 as an Associate Professor)  
Associate Professors — 9 years (4 as an Assistant Professor)

## CONDITIONS OF APPOINTMENT:

**Salaries:** Total monthly salaries will be within the following scales according to qualifications and experience (1 KD = 1.9 St. Pound, US\$ 3.5 approximately). Increment per year KD.20/—

### **Professors:**

With clinical appointments	= KD.1210-1370	(8 increments)
Medically qualified with a Ph.D. in Medical Science	= KD.1140-1300	(" ")
Non-Medically qualified	= KD.1070-1230	(" ")

### **Associate Professors:**

With clinical appointments	= KD.989-1149	(" ")
Medically qualified with a Ph.D. in Medical Science	= KD.932-1092	(" ")
Non-Medically qualified	= KD.875-1035	(" ")

### **Assistant Professors:**

With clinical appointments	= KD.768-928	(" ")
Medically qualified with a Ph.D. in Medical Science	= KD.724-884	(" ")
Non-Medically qualified	= KD.680-840	(" ")

## OTHER ALLOWANCES:

Social allowance will be paid in addition to the monthly salary as per the University regulations.

Clinical allowances from the Ministry of Public Health for 10 months a year (i.e. the University Academic year from SEPTEMBER to end of JUNE) for clinical service commitments as follows:

Professor and Chairman :	KD.450
Professor :	KD.400
Associate Professor :	KD.300
Assistant Professor :	KD.200

## OTHER BENEFITS:

Conference attendance. Gratuity. Furnished accommodation (electricity and water free of charge). Free medical treatment in Kuwait. Free annual round trip airtickets from country of Citizenship or permanent residence for self and family up to three dependent children. Baggage and freight allowance. Education fees for maximum three children in Kuwait from elementary through high school. No taxation. Currency is transferable without restriction. 60 days paid annual leave.

**METHOD OF APPLICATION:** Curriculum vitae in duplicate which should include the names of 3 referees; personal particulars; copy of the relevant pages of passport; qualifications with dates, career history; teaching experience, research accomplishments and where appropriate clinical experience should be sent to: THE VICE-DEAN ADMINISTRATION (RECRUITMENT OFFICE), FACULTY OF MEDICINE, KUWAIT UNIVERSITY, P.O. Box 24923, 13110 SAFAT, KUWAIT — to arrive NO LATER THAN 15th OCTOBER 1992.

**The quality  
of R&D  
depends on  
the quality  
of the  
resources.**

## **Senior Scientists/ Assistant Scientist**

*There are a number of components to success in the pharmaceutical research process. The most important is our people. At Schering-Plough, we hire the best talent in our industry. Then, we provide them with the technical resources they need to do their best work: the most advanced instrumentation; the latest computerized systems; modern lab facilities. Finally, we spend over \$400 million annually on R&D, and are completing a \$300 million R&D facility.*

*Commitment of this scope has helped us achieve over \$3 billion in annual sales around the world.*

## **Biotechnology- Molecular Biology Senior Scientists**

The Biotechnology Research Department currently has 2 positions available for Senior Scientists. As a member of the group, you will play a key role in highly collaborative, multidisciplinary research projects which continually extend the boundaries of pharmaceutical discovery. These projects include the study of the regulation of gene expression, ligand-receptor interaction, antibody humanization and gene cloning comprising the application of recombinant DNA technology to our cytokine antagonist program.

The successful candidates will have a Ph.D. in Molecular Biology, Biochemistry or equivalent, 0-5 years post-doctoral experience and expertise in recombinant DNA technology essential. A strong background in molecular biology, with particular emphasis on experience with (1) cDNA library construction and screening using both eukaryotic and prokaryotic hosts, or (2) protein structure/function analysis, including mutagenesis and protein characterization is needed. Respond to Box: 91-94

We offer highly competitive salaries, superior benefits, and all the challenge and growth potential an international industry leader can offer. Applicants should submit resume indicating position of interest to: George Czuba, Schering-Plough Research Institute, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

## **Cardiovascular Research Senior Scientist**

As an Atherosclerosis Specialist, you will research aspects of in-vivo lipid and lipoprotein metabolism.

The successful candidate will have a Ph.D. with 2-5 years of postdoctoral research, specific experience in evaluating lipoprotein composition, distribution and kinetics in animal models of dyslipidemias and isolated organ systems. Respond to Box: 92-AR

## **Tumor Biology Assistant Scientist**

As an Assistant Scientist, you will establish and perform tumor cell-based assays to identify potential anti-cancer drugs, use Western blot techniques and enzymatic assay development.

The successful candidate will have a B.S. in the Biological Sciences with 2-4 years' experience or an M.S. with up to 2 years' experience. Some cell culture experience desirable. The job responsibilities require laboratory techniques to be reliable and reproducible, and organizational skills need to be strong to handle the volume of compounds screened in our bioassays. Respond to Box: 92-CB

*The science of success*



**Schering-Plough  
Research Institute**

## **POSITIONS OPEN**

The University of Illinois, Urbana-Champaign, Department of Animal Sciences, is seeking an **ASSISTANT PROFESSOR OF REPRODUCTIVE PHYSIOLOGY**. Responsibilities are to establish a strong research program, to obtain extramural funding, to advise and direct M.S. and Ph.D. students, to advise undergraduates, to teach undergraduate and graduate courses, and to interact with faculty in research programs in reproductive physiology and related areas. Candidates must have a Ph.D. in Animal Sciences or related field with emphasis in reproductive physiology. Applicants with an interest in neuroendocrinology, male reproduction, pregnancy-parturition are especially urged to apply. A newly-constructed office/laboratory complex, a new animal biotechnology center, and facilities for large domestic and laboratory animals are available to support research and teaching efforts. To ensure full consideration, applications should be received by August 30, 1992. Applications will be accepted until a suitable candidate is found. The position will be available December 21, 1992. Candidates should submit curriculum vitae, academic transcripts, a letter which describes their research interests and provides reasons for their interest in the position and ask three references to send letters of support to: **D. R. Campion, Head, Department of Animal Sciences, University of Illinois at Urbana-Champaign, 1301 West Gregory Drive, Urbana, IL 61801. Telephone: (217) 333-3462. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**



## **ASSISTANT/ASSOCIATE PROFESSOR PHYSIOLOGY AND BIOPHYSICS**

Applications are invited for tenure leading faculty positions at the Assistant or Associate Professor levels in the Department of Physiology and Biophysics at the University of Nebraska Medical Center. The department is interested in recruiting individuals with a strong research program in microcirculatory or endothelial cell function and in membrane transport. At the Associate level, the candidate should show evidence of extramural funding. A competitive salary and setup funds are available.

The successful candidate will also participate in the teaching programs of the department which include medical, allied health and graduate students.

Please send current curriculum vitae and the names of three references by September 1, 1992 to:

**William G. Mayhan, Ph.D.  
Chair, Physiology and Biophysics Search Committee  
Department of Physiology and Biophysics  
600 South 42nd Street  
Omaha, NE 68198-4575**

*"An Equal Opportunity/Affirmative Action Employer."  
"Minorities and Women are Encouraged to Apply."*

## **ASSOCIATE PROFESSOR OF ENVIRONMENTAL EPIDEMIOLOGY**

The Department of Epidemiology, Graduate School of Public Health, University of Pittsburgh invites applications for a full-time tenure stream faculty position at the level of Associate Professor to direct the Environmental Epidemiology component in the Department. This position is available immediately. The individual should have an M.D. or Ph.D. degree and experience in environmental epidemiology, especially the evaluation of environmental agents that affect human health. The Department is particularly interested in the study of environmental hazards and reproductive outcomes and/or the risks of neurological diseases and cognitive function. The successful candidate should have peer-reviewed research and prior grant support as well as teaching experience. Excellent teaching and research resources are available in the Department and affiliated programs. Salary will be commensurate with experience. Applications will be reviewed until position is filled. Send letter of intent, curriculum vitae, and the names of three references to: **Position #006138, c/o L. DeLuco, Department of Epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA 15261. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.**



## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR

The Division of Pulmonary Medicine, Children's Hospital of Philadelphia, University of Pennsylvania School of Medicine is seeking a faculty member to join our Airway Biology Program on regulation of contractility and proliferation of airway smooth muscle cells. Research expertise should include molecular regulation of receptor gene expression and signal transduction processes. Candidates must provide evidence of research accomplishment. Ample support will be provided for start-up and early development. Candidates having an M.D. and/or Ph.D. degree should submit curriculum vitae and three letters of reference to: **Michael M. Grunstein, M.D., Ph.D., Division of Pulmonary Medicine, Children's Hospital of Philadelphia, University of Pennsylvania School of Medicine, 34th Street and Civic Center, Philadelphia, PA 19104.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH ASSISTANT/ ASSOCIATE PROFESSOR TULANE UNIVERSITY

Position available immediately for research in neutrophil mediated mechanisms of myocardial injury following coronary reperfusion. A background in cardiovascular physiology, pharmacology or pathology and experience with animal models of ischemiareperfusion desirable. Opportunity to work in integrated cardiovascular laboratories with other NIH funded investigators in the Cardiology Section and other basic science departments in a developing and high priority cardiobiology program. Applications will be accepted until a qualified candidate is selected. Rank and salary commensurate with qualifications. Submit curriculum vitae and three letters of reference to: **Andrew J. Buda, M.D., Chief, Cardiology Section, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112.** *Affirmative Action/Equal Opportunity Employer.*

### DIRECTOR CLINICAL RESEARCH LABORATORY

Swedish Hospital Tumor Institute, Seattle, Washington, is recruiting an individual to direct the clinical research laboratory. Active areas of research include biological response modifiers, cancer immunology, drug resistance modulation and the effect of high dose chemotherapy.

Research activity and interests should focus on solid tumor research with an emphasis on clinically related topics. Salary and support for technical assistance is negotiable.

Interested individuals should submit curriculum vitae to:

**Gary E. Goodman, M.D.  
Swedish Hospital Tumor Institute  
1221 Madison Street, 2nd Floor  
Seattle, WA 98104  
Telephone: (206) 386-2323**

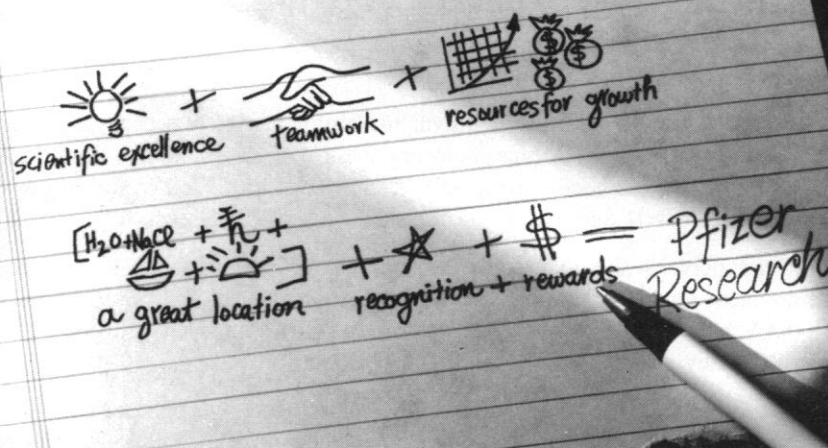
### SCIENTIFIC DIRECTOR FOR VASCULAR BIOLOGY RESEARCH PROGRAM

The Division of Cardiovascular Disease, Department of Medicine at the University of Alabama at Birmingham (UAB), is seeking a qualified individual (M.D. and/or Ph.D.) to further develop and direct a newly established multidisciplinary research program in vascular biology and medicine. Participating faculty include a multidisciplinary group of funded investigators who study basic cellular, biochemical, molecular mechanisms and clinical processes that underlie the pathogenesis of vascular disease. Please submit curriculum vitae and four letters of recommendation by December 1, 1992, to: **Gerald M. Pohost, M.D., Director, Division of Cardiovascular Disease, THT 311, UAB Station, Birmingham, AL 35294-0006.** *The University of Alabama at Birmingham is an Affirmative Action/Equal Opportunity Employer.*

More than 150,000 people paid to see your ad in **SCIENCE**. Classified Advertising Department telephone: 202-326-6555. FAX: 202-682-0816.

# In Vivo Bone Biologist Osteoporosis Research

Solve the equation for success.



The Central Research Division of Pfizer Inc is seeking a qualified scientist to become a member of a multidisciplinary team aimed at developing new therapy for the treatment and prevention of osteoporosis.

In this key role, you will collaborate with molecular biologists, pharmacologists, and medicinal chemists to establish a laboratory for the investigation of novel therapeutics for osteoporosis and bone diseases utilizing appropriate *in vivo* models.

The successful candidate will have a PhD, MD and/or DDS and demonstrated abilities in the area of bone biology/physiology, a solid publication record, excellent supervisory skills, and be at least 5 years beyond the doctoral degree. Expertise in bone histomorphometry desirable.

We offer competitive salaries and a full range of benefits including medical and dental insurance, paid holidays and vacations, educational assistance, savings and investment plan, pension plan, relocation assistance and more.

To learn how you can be part of the future of Pfizer, send your resume to: **Mr. Kym Goddu, Personnel Associate, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** An equal opportunity employer.



**Central Research**

Bringing science to life.

## Program Manager, Ocean Optics

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in optical oceanography. The sponsored research is conducted principally at universities and private laboratories, with research performed by leading scientists in the field. This is a Civil Service position at the GM-14 or 15 level (\$54,607-\$80,502), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of optical oceanography with emphasis on theoretical and experimental aspects of oceanographic radiative energy transfer, ocean color, visibility/imaging, and particulate optics. The incumbent will identify new research opportunities, communicate ONR interests to the scientific community, evaluate and select research proposals for funding, manage available resources, and represent the program within the Navy and DoD. This position provides the challenge and opportunity to have a creative and significant impact on the direction and quality of research conducted at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have a P.h.D. or equivalent training in optical oceanography or in an area related to optical oceanography, and at least one year of professional experience or an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade in the Federal Service. Demonstrated research experience is preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to: **OFFICE OF THE CHIEF OF NAVAL RESEARCH, Civilian Personnel Division, OCNR Code 01242, Attn: Announcement #92-18 (S), 800 North Quincy Street, Arlington, VA 22217-5000.**

Applications will be accepted through 28 August 1992 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (703) 696-4705 or Telecommunication Device for the Deaf (703) 696-2681.

**U.S. Citizenship Required**

**An Equal Opportunity Employer**

### **Research Scientists** **Molecular Diagnostics Group** **Osteoporosis Program**

Miles Inc., Diagnostics Division, a leading developer of automated clinical laboratory instruments, offers several exciting opportunities in the diagnostics industry to research novel tests for osteoporosis and osteosarcoma.

Successful candidates will utilize skills in protein chemistry and immunochemistry to isolate and characterize antigens and antibodies for osteoporosis detection. Positions will also involve clinical testing of novel diagnostic assays and comparison with established methods.

Qualified candidates will have an MS in biological sciences, 5-7 years' experience in immunochemistry, or a PhD in biological sciences with postdoctoral experience. A background in ELISA development and collagen biochemistry would be helpful. These are hands-on positions with the opportunity to collaborate with academic investigators. Excellent communication skills required.

Miles Inc., Diagnostics Division provides a professional and stimulating environment, competitive salaries and a comprehensive benefits package. Qualified candidates are invited to send CV/resume to: **Manager, Human Resources-R&D, Miles Inc.,**

**MILES**   
**Diagnostics Division**

**Diagnostics Division,  
511 Benedict Avenue,  
Tarrytown, NY 10591.**

An Equal Opportunity/Affirmative  
Action Employer M/F/H/V.

## GENE THERAPY

Established, well-funded biotechnology company is planning expansion into the area of gene therapy and is seeking highly qualified individuals to fill the following positions.

### **Program Director**

You will be responsible for coordinating and leading an interdisciplinary team of scientists with the broad goal of initiating research, preclinical, and clinical projects aimed at therapeutic application of gene transfer/replacement technology. We are seeking an individual with an M.D. or Ph.D. degree and 7+ years of postgraduate experience, an established reputation in relevant areas of research, as well as clearly demonstrated leadership and administrative capabilities.

### **Staff Scientists**

Candidates are sought with an M.D. or Ph.D. degree and 3+ years of post-doctoral research training in broad areas of molecular or cell biology relating to gene therapy. Scientists with interest and expertise in the following areas are especially encouraged to apply: Gene transfer using viral or non-viral vectors; Tissue-specific regulation of gene expression; Development of animal models for human disease; Genetic manipulation of embryonic stem cells and transgenesis.

Highly competitive compensation and benefits package and the opportunity to make a substantial contribution to a thriving company in an attractive state-of-the-art work environment. Interested candidates should forward their resume to:

Box 21  
Science Classified Advertising  
Room 814  
1333 H Street, N.W.  
Washington, DC 20005  
*Equal Opportunity Employer*

## Sepracor— New Pharmaceuticals Based On Advanced Separations Technology

Sepracor is a rapidly growing Company that is a leader in the areas of separations, asymmetric synthesis and the production of optically pure pharmaceuticals.

We are well located in an attractive suburban area west of Boston and offer a competitive compensation package which includes the opportunity for equity participation in the Company's growth.

**We currently have several openings:**

### •Director of Clinical Research

The ideal candidate will hold an M.D. degree and have 5-10 years of pharmaceutical industry experience in clinical research. Experience in the development of CNS drugs is desirable. Responsibilities will include the design and writing of clinical study protocols, selection of clinical study investigators, and the on-site monitoring of clinical studies. The Director will also have responsibility for the interpretation and presentation of clinical study results to the scientific and regulatory community. As part of a multidisciplinary team, the Director will need to communicate effectively with members of the Pre-Clinical, Biostatistics, Regulatory Affairs, Legal, and Business Development groups.

### •Director of Regulatory Affairs

The Director of Regulatory Affairs will have responsibility for all regulatory activities within Sepracor's Pharmaceutical Division. The Director will have responsibility for the writing, coordinating, and submitting of all regulatory documentation (INDs, annual reports, CTXs, NDAs, etc.) to the FDA and overseas regulatory authorities. The ideal candidate will hold an advanced degree (M.S. or Ph.D.) in a chemical, biological or related discipline and have 5-10 years of regulatory experience within a major pharmaceutical company. The candidate must also have excellent oral and written communications skills and be detail-oriented. Experience with both U.S. and European regulatory procedures is highly desirable.

### •Research Chemists

Our new Research Chemists will be responsible for the preparation of optically active pharmaceuticals using asymmetric synthesis and resolution techniques. The ideal candidates will have a Ph.D. and postdoctoral experience in synthetic or medicinal chemistry, and have the ability to independently plan and carry out multi-step organic syntheses. A broad working knowledge of a wide variety of synthetic transformations is crucial. The ability to utilize standard analytical techniques, such as NMR, IR, and HPLC (chiral and non-chiral) is also required.

We're an easy commute from the Mass. Pike and Routes 495, 290, and 9. Please send your resume, indicating position to: **Human Resources Administrator, Sepracor Inc., 33 Locke Drive, Marlborough, MA 01752.** Please no phone calls or agencies.

**Leaders in Advanced Separation Technology.**  
Equal Opportunity Employer M/F/H/V.



SEPRACOR INC.

### AQUACULTURE PROJECT DIRECTOR, MALAWI

The International Center for Living Aquatic Resources Management (ICLARM) is an international organization conducting interdisciplinary research on aquaculture and fisheries in tropical developing countries. The Consultative Group on International Agricultural Research (CGIAR) has recently accepted ICLARM to become an international center for fisheries' research under its umbrella. ICLARM's research is carried out in close cooperation with national programs.

The position is based at Malaŵi's National Aquaculture Centre near Zomba, with occasional travel throughout Malaŵi, to other African countries and to ICLARM headquarters. Main duties include: 1) managing and directing a collaborative research and training program involving ICLARM, the Malaŵi Fisheries Department, the University of Malaŵi and the Malaŵi Department of Research and Environmental Affairs; 2) assisting ICLARM and its collaborators with the development of collaborative research linkages in inland aquaculture research and development, principally in southern Africa.

The candidate must have a Ph.D. in aquaculture or a related field and be fluent in English. Preference will be given to candidates with extensive experience in managing aquaculture research projects and working with national programs, preferably in subSaharan Africa.

ICLARM wishes to fill this position by 1 November 1992. Applicants are invited to send their curricula vitae, date of availability, names and addresses of three referees (including telephone, telex or Fax numbers) and copies of relevant publications to: **Director General, ICLARM, MC P.O. Box 1501, Makati, Metro Manila, Philippines; Telex: 64794 ICLARM PN or 4900010376 ICL UI (USA); Fax: (63-2)816-3183. Deadline for receipt of applications is 15 July 1992.**

## Senior Staff Fellows And Postdoctoral Fellows In Immunology.

Positions are available to study polyreactive antibodies and the biology of CD5<sup>+</sup> and CD5<sup>-</sup> B cells. Studies also focus on the production of human monoclonal antibodies against clinically-relevant antigens and antigen processing/presentation. Experience in molecular biology is desirable.

There is an opportunity for senior fellows to have technical and/or postdoctoral support. Salary is commensurate with experience. Send *curriculum vitae* and names of references to Dr. Abner Notkins, Director, Intramural Research Program, National Institute of Dental Research.

### National Institutes Of Health

9000 Rockville Pike, Building 30, Room 131, Bethesda, MD 20892  
Equal Opportunity Employer



**Strategic Diagnostics Inc.** has the following scientist positions open:

#### **Immunoassay Development**

The selected candidate will develop immunoassays for environmental compounds. Activities will include assay design, optimization of reagents, stability testing and field test design. Familiarity with various solid supports and detection systems is desirable. The ideal candidate will have a track record of industrial immunoassay product development.

#### **Hybridoma Development**

The selected candidate will perform and/or direct immunizations, fusions, cell culture, and design screening assays.

Both positions require a Ph.D. with 2 years industrial experience or BS/MS with 5 years industrial experience.

We offer an exciting work environment as well as competitive salaries and a full benefits package. For confidential consideration, please send your resume to the following address:

**Strategic Diagnostics Inc.**

Attn: Human Resources

128 Sandy Drive

Newark, DE 19713

We are an Equal Opportunity Employer, M/F/H/V.

## **UNIQUE CAREER CHANGE OPPORTUNITY**

Ph.D.s & Doctoral Professionals

**T**he College of Osteopathic Medicine and Surgery in Des Moines, Iowa, offers an accelerated three-year program leading to the Doctor of Osteopathy (D.O.) degree. Doctors of Osteopathy are fully licensed physicians who practice all aspects of medicine in every state.

Your doctoral degree in biological sciences or medical sciences qualifies you to be considered for admission to this accelerated program.

The Graduate Professional Education Program (GPEP) features:

- Three years of didactic and clinical training.
- Significant reduction in total tuition and living costs compared to standard four-year medical programs.
- Financial assistance to qualified students.
- Self-paced learning through independent study.

For more information and an application contact:

**Admissions Office, GPEP Program**  
**University of Osteopathic Medicine**  
**and Health Sciences**

3200 Grand Avenue

Des Moines, IA 50312-4198

(515) 271-1450 or 271-1614

## **POSITIONS OPEN**

### **CHAIRPERSON DEPARTMENT OF DERMATOLOGY UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS) BETHESDA, MARYLAND**

We seek an individual to lead the Dermatology Department who is committed to pursuing scholarly activities, maintaining an active, extramurally-funded research program and instructing an enthusiastic group of undergraduate medical students and residents. The successful candidate will have access to a large patient population with tropical and other infectious diseases and an extensive epidemiological database. There is the potential for close interaction and scientific collaboration with the excellent dermatology groups at the National Institutes of Health, the National Naval Medical Center and Walter Reed Army Medical Center. Because the Department of Dermatology at USUHS does not have direct responsibility for patient care, emphasis will be placed on research and teaching activities. The Chairman will be provided with substantial research support. An additional faculty position will be available, with resources to establish and staff a new research laboratory. Consideration of candidates will commence four weeks after the publication of this notice. Applications will be accepted no later than 30 September 1992, although selection will be made at the earliest possible date. Candidates should send curriculum vitae, a letter stating their teaching and research interests and the names of at least three potential references. *Members of minorities that are underrepresented in science are encouraged to apply.*

Please send applications to: **Civilian Human Resources Directorate (DER:DB), Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** *USUHS is an Equal Opportunity/Affirmative Action Employer.*

### **FACULTY POSITION IN CANCER MOLECULAR GENETICS**

The Department of Pathology is seeking applications for a full-time faculty position from research scientists working in the area of the molecular biology and genetics of cancer. The recruited candidate will be part of a dynamic department with an established graduate student program and research excellence in the areas of cellular and molecular mechanisms of human diseases. This is a joint recruitment with the NCI-funded University of Colorado Cancer Center. The successful candidate will also have the opportunity to interact with interdepartmental programs in Genetics and Molecular Biology. Candidates must have a Ph.D. or M.D. degree or both, and relevant postdoctoral training. Also required are a demonstrated ability or potential for maintaining an extramurally funded research program and credentials for teaching medical and graduate students. Rank and salary are dependent on qualifications and experience. Send résumé, statement of career and research goals, and names and addresses of three references to:

**Ms. Laurie Bogue**  
**Cancer Molecular Genetics Search Committee**  
**Department of Pathology, Box B216**  
**University of Colorado Health Sciences Center**  
**4200 East Ninth Avenue**  
**Denver, CO 80262**

*The University of Colorado is committed to Equal Opportunity Employment and Affirmative Action.*

**INTER AMERICAN UNIVERSITY OF PUERTO RICO. POSITION IN HIGHER EDUCATION.** Inter American University of Puerto Rico, a private non-profit institution, invites applications for the following full time position: **INSTRUCTOR-COMPUTER SCIENCES.** The teaching load is 15 credit/hours and the starting salary \$1,645 per month. **REQUIREMENTS:** Master's Degree in Computer Sciences, Management Information System or Mathematics with 15 credits in computer courses. Must be able to lecture in Spanish. Teaching experience at college level. **DEADLINE:** July 30, 1992. Send résumé and academic credentials to: **Inter American University of Puerto Rico, Fajardo Campus, P.O. Box 1029, Fajardo, Puerto Rico 00738.** **IMPORTANT:** Qualified candidates resulting from the announcement will be considered for this position only. *An Equal Opportunity/Affirmative Action Employer (M/F/H/V).*

## **POSITIONS OPEN**

### **CYTOGENETIC LAB DIRECTOR**

**LGS/LABORATORIES FOR GENETIC SERVICES, INC.** Position available for an ABMG Board-certified or Board-eligible Ph.D. or M.D. Experience in prenatal, pediatric, and cancer cytogenetic diagnostics is required. The successful candidate will participate in directing the 10-year-old, rapidly expanding cytogenetics lab and will direct FISH technology for use in genetic diagnosis. LGS, located in the Texas Medical Center area, has academic affiliations. All applicants send curriculum vitae and a minimum of three professional references to:

**LGS**  
**Peggy Pearce Caskey**  
**President**  
**6410 Fannin, #910**  
**Houston, TX 77030**  
**FAX: 713-797-9731**

*Equal Opportunity Employer*

**UNIVERSITY OF SOUTHERN CALIFORNIA (USC). TENURE-TRACK FACULTY POSITION.** Applications are invited for a neurobiologist with research interests in molecular aspects of development, aging, and/or neurodegeneration. Applicants will be expected to set up an independent research program in conjunction with the Alzheimer's Disease Research Center and USC's program in Neural Information and Behavioral Sciences. Please send curriculum vitae and brief statement of research interests to: **Dr. Caleb E. Finch, University of Southern California, Ethel Percy Andrus Gerontology Center, 3715 McClintock Avenue, Los Angeles, CA 90089-0191.**

### **FACULTY POSITION BIOLOGY OF INFECTIOUS DISEASES**

The Department of Molecular Genetics and Cell Biology at The University of Chicago invites applications for a junior or intermediate level tenure-track position to investigate the basic biology of infectious diseases. Host-parasite interactions, the immune response to infection, and basic mechanisms of pathogenesis by bacteria, fungi and parasites are examples of research interests appropriate for this position. Significant postdoctoral experience is required. In addition to establishing an independent research program and participating fully in the graduate programs of the Department and of the Division of the Biological Sciences, the individual filling this position will have the opportunity to interact with clinicians and trainees of the Departments of Medicine and of Pediatrics interested in infectious diseases. Applicants should send curriculum vitae, a statement of research interests and a list of at least three references to: **Dr. Wolfgang Epstein, Microbiology Search, Department of Molecular Genetics and Cell Biology, 920 East 58th Street, Chicago, IL 60637-1474.** *The University of Chicago is an Affirmative Action/Equal Opportunity Employer.*

### **POSTDOCTORAL ASSOCIATE POSITION**

The University of Vermont. Applications are invited for a unique position to investigate the modulation of potassium channels in bladder smooth muscle in collaboration with a major pharmaceutical company. This position would involve initially at least one year at the University of Vermont followed by a position at that company. An excellent work environment as well as competitive salary and benefits are offered. Send curriculum vitae and names of three references to: **Dr. Mark T. Nelson, Smooth Muscle Ion Channel Group, Department of Pharmacology, University of Vermont Medical Research Facility, 55A South Park Drive, Colchester, VT 05446.**

### **POSTDOCTORAL FELLOWSHIP**

Multidisciplinary environment focused on light-directed synthesis. Physical/Organic/Biophysical—Photochemistry, lithography, fluorescence microscopy, instrumentation experience. Curriculum vitae and references to: **Professor Michael Pirrung, Department of Chemistry, Duke University, Durham, NC 27706.** *Affirmative Action/Equal Opportunity Employer.*





**NATIONAL UNIVERSITY  
OF SINGAPORE  
DEPARTMENT OF  
BIOCHEMISTRY**

Applications are invited for **teaching appointments** in the **Department of Biochemistry**.

Candidates should have either a PhD degree or an approved basic medical degree with a recognised higher academic/professional qualification. Preference will be given to candidates with teaching and research experience. A proven track record of high calibre, self-directed research in all aspects of eukaryotic (mammalian) molecular and cell biology will be a decided advantage.

Gross annual emoluments range as follows:

Lecturer	S\$50,390- 64,200
Senior Lecturer	S\$58,680-100,310
Associate Professor	S\$88,650-122,870
(US\$1.00 = S\$1.62 approximately)	

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered. In addition, appointees who possess an approved basic medical degree and a recognised higher academic/professional qualification will receive a Fixed Specialist Allowance (FSA), the annual rates for which are as follows:

Lecturer	S\$6,000/9,000
Senior Lecturer	S\$15,000
Associate Professor	S\$21,000

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of contract gratuity, a settling-in allowance of S\$1,000 or S\$2,000, subsidised housing at nominal rentals ranging from S\$100 to S\$216 p.m., education allowance for up to three children subject to a maximum of S\$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore.

All academic staff have access to the following computer and telecommunication resources: an individual micro-computer (an IBM AT-compatible or Apple Macintosh); an IBM mainframe computer with 16 MIPS of computing power; an NEC SX supercomputer with 650 MFLOPS of computing power; departmental laser printers; a wide spectrum of mainframe and microcomputer software; voice-mail. A campus-wide network, which is based on the high speed optical fibre based FDDI technology, links up all the academic staff and student microcomputers, UNIX workstations and provides access to the mainframe computer, the supercomputer, UNIX hosts, the on-line library catalogue, Internet and BITNET.

Application forms and further information on terms and conditions of service may be obtained from:

**The Director  
Personnel Department  
National University of Singapore  
10 Kent Ridge Crescent  
Singapore 0511**

Enquiries may also be sent through BITNET to: **PER-CLL @ NUS3090**, or through Telefax: (65) 7783948



**Wellcome**

## BIOCHEMISTS/CELL BIOLOGISTS

Exploring and testing your analytical and intuitive abilities is what a scientific career is all about. And Burroughs Wellcome Co. can give you those opportunities. We are at the forefront of important new pharmaceutical developments, with a long record of successes. That means you can have the resources and support to do your best work, and make a meaningful difference. Discover your capabilities at Burroughs Wellcome Co.

The Division of Cell Biology has an exciting opportunity for a Scientist to participate in studies toward Antibody dependent cancer therapy. Research will involve enzyme kinetics investigation as well as production and human cell culture analysis of antibody conjugates.

### Research Scientist II/ Senior Research Associate

This position will be filled at the Research Scientist II or Senior Research Associate level. The Research Scientist II level requires a Ph.D. in Biochemistry/Cell Biology and experience in enzyme kinetics, cell culture and antibody methods or an M.S. degree in Biochemistry/Cell Biology plus two years of experience as listed above or a B.S. degree in Biochemistry/Cell Biology plus four years of experience as listed above. The Senior Research Associate level requires a Ph.D. in Biochemistry/Cell Biology plus one year of post-doctoral or related experience or an M.S. degree plus four years of experience as noted above or a B.S. degree plus six years of experience as noted above. Other factors to be considered include the ability to collaborate with peers and a demonstrated interest in antibody therapy for cancer and other diseases. Candidates selected for interview will take an on-site writing assessment.

Burroughs Wellcome Co. offers competitive salaries and comprehensive benefits. We also offer the advantages of working in North Carolina's celebrated Research Triangle Park, one of the country's leading areas for scientific research, with the cultural and recreational opportunities of the Triangle area nearby. To apply, please send your resume, indicating position number in your cover letter by **August 24, 1992** to: **Burroughs Wellcome Co., Recruiting and Staffing, Position #64032-20, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at (919) 248-8347 in Research Triangle Park, NC.



**Wellcome**

**BURROUGHS WELLCOME CO.**

An Equal Opportunity Employer.

# SIBIA

SIBIA is expanding its interdisciplinary research on therapeutics for neurodegenerative disorders. SIBIA has established an enviable record in the development of innovative technologies integral to the biopharmaceutical industry. We are currently seeking highly talented candidates who have a strong desire to join an interdisciplinary research group to discover and develop novel therapeutic molecules acting through specific receptors and as protease inhibitors.

## RESEARCH DIRECTORS IN NEUROSCIENCES

### Director of Pharmacology

PhD and post-doctoral plus 7-10 years' experience in CNS pharmacology and/or molecular neuroscience including *in vitro* and *in vivo* pharmacological techniques as applied to neurodegenerative disorders. The ideal candidate will be a recognized leader in CNS pharmacology with an exceptionally broad grasp of molecular/cell biology and the neurosciences, and with experience in the drug development process.

### Director of Chemistry

PhD and post-doctoral plus 7-10 years' experience in medicinal, organic and/or structural chemistry including both drug design and the drug development process. SIBIA is seeking scientists with success in the design and synthesis of CNS drugs based on structural biology, CADD, and modern synthetic strategies, preferably in the pharmaceutical industry.

## SCIENTISTS AND/OR ASSOCIATE SCIENTISTS

### Electrophysiology

PhD plus 2 or more years of post-doctoral experience in the use of two-electrode voltage-clamp and patch clamp techniques. Position will involve the electrophysiological characterization of recombinant ion channels and receptors expressed in *Xenopus* oocytes and mammalian cells.

BS/MS with 2-4 years' experience with *in vitro* electrophysiological techniques, including preparation of cells, solutions and electrodes.

### Molecular and Cellular Biology

BS/MS with 2-4 years' experience in mammalian molecular and cellular biology, including cell culture and mammalian cell transfection techniques.

BS/MS with 2-4 years' experience in molecular biology, including nucleic acid isolation, cDNA library construction and screening, DNA sequencing and vector construction.

### Molecular Pharmacology

PhD/MS/BS with 2-4 years' experience in molecular pharmacology and receptor assay development, including ligand-binding and functional assay techniques.

*Located on the beautiful La Jolla coastline near San Diego, SIBIA offers not only a challenging professional and aesthetic environment but also an outstanding competitive salary and benefits package. Please send a confidential curriculum vitae with the names of three references to: SIBIA, Lynn Alba, Human Resources Dept., 505 Coast Boulevard South, Suite 300, La Jolla, CA 92037. SIBIA is an Equal Opportunity Employer.*

## WOMEN IN SCIENCE

March 13 Reprint

This first-time special section, reprinted from the March 13 issue of **SCIENCE**, takes an in-depth look at women in science.

This section explores:

Women's Progress in Science  
Career Advancement  
Networking  
Mentoring  
Two Career Couples in Science  
Women's Progress in Mathematics, Chemistry, and Life Sciences

Also included are profiles of women "who have made it" in science, as well as valuable insights on the key to their success.

To order your copy, send \$2.50 plus \$0.50 postage and handling to:

## SCIENCE

Attn: Corrine Harris  
1333 H Street, N.W.

Washington, D.C. 20005

Telephone: 202-326-6527

Visa and MasterCard orders  
accepted by

Fax: 202-682-0816

Bulk rate for orders of 10 or more is \$1.00 per copy.

# Scientists

Synergen, a growing biopharmaceutical company in Boulder, Colorado, is developing protein-based human pharmaceuticals for the treatment of serious diseases.

Our **DISCOVERY RESEARCH GROUP** requires innovative scientists with a Ph.D. in the life sciences, biochemistry or chemistry. Candidates should have either a proven expertise in protein purification and an interest in cell adhesion molecules, growth factors or cytokines.

Our **PHARMACOKINETICS GROUP** requires a highly motivated and creative Ph.D. scientist. This individual will design, conduct, analyze and prepare reports for animal and human studies on the absorption, distribution and elimination of protein pharmaceuticals. The ideal candidate will possess a Ph.D. in pharmacokinetics, pharmacology or physiology and have established expertise in pharmacokinetics and protein analysis. Good written and oral communications skills and the ability to work independently will be important selection criterion.

Our **FORMULATIONS/PHARMACEUTICAL GROUP** is seeking a scientist with a Ph.D. who will work in the laboratory developing formulations for new protein therapeutics for clinical testing and work on advanced delivery systems for our more mature products which are in later stage clinical trials. Requirements include experience in protein chemistry, formulation, lypophilization or advanced delivery systems applicable to protein therapeutics.

Our **ANALYTICAL SERVICES GROUP** is seeking an individual with a Ph.D in biochemistry or a related field and at least two years pharmaceutical experience. Specifically, qualified candidates will have experience in the development and validation of analytical tests on biotech products and be proficient in HPLC, gel electrophoresis, enzymatic assays, ELISA, DNA assays and LAL tests. A strong working knowledge of current Good Manufacturing Practices regulations and FDA guidelines is preferred.

Synergen, Inc. offers a competitive compensation package, generous benefits and corporate financial stability. Our Rocky Mountain community is renowned for its beauty, culture and natural attractions as a premier place to live and work. If you value the professional challenge of a progressive, fast-paced, innovative company, please send your Curriculum Vitae in confidence to Synergen, Inc., Director of Recruitment, Box SCY, 1885 33rd Street, Boulder, CO 80301. Synergen is an Equal Opportunity Employer.



## MICROBIOLOGIST (MOLECULAR VIROLOGIST)

The U.S. Department of Agriculture, Agricultural Research Service, Southeast Poultry Research Laboratory in Athens, GA is seeking a Microbiologist (Molecular Virologist), GS/GM-0403-12/13, \$38,861 to \$46,210 per annum for research on Newcastle disease virus. The laboratory is adjacent to the University of Georgia and has excellent facilities and equipment to research molecular aspects of viruses. Collaborative research is encouraged on questions such as viral pathogenesis, viral persistence and virulence markers. Laboratory emphasis is on diseases of national importance to the poultry industry, a major contributor to the U.S. diet. Candidates must submit a narrative statement outlining their education/experience in the following areas (1) knowledge of infectious diseases, especially of viral origin, pathology and immunology; (2) skills in molecular virology techniques including propagation of viruses, their purification, polyacrylamide gel electrophoresis, DNA/RNA sequencing, gene splicing, restriction mapping, bacterial transformation using recombinant plasmids and Northern blot hybridization. Candidates should have a PhD with their training and experience in the utilization of molecular techniques for the study of animal viruses. Additional training in veterinary medicine or medical microbiology would be beneficial to their research efforts. For information on the research program or position, contact Dr. C. W. Beard (706) 546-3432. For information on application procedures or forms, contact Carol Gramlich at (301) 344-1600; mailing address: USDA, ARS, PD, POB SS, 6305 Ivy Lane, RM. 341-A, Greenbelt, MD 20770-1435. Complete applications must be postmarked by September 11, 1992 and should be marked ARS-029-087 (S-2-029). USDA ARS is an Equal Opportunity Employer.



## Molecular Biology and Enzymology Research Scientists

CIBA-GEIGY's Pharmaceuticals Division is consistently at the forefront of scientific research. We are currently seeking Scientists to participate in drug innovation research in our Molecular Biology and Enzymology group.

The successful candidate in Molecular Biology will have an MS or BS in Biology or Molecular Biology. Experience in recombinant DNA methodology including gene cloning, mammalian cell expression and tissue culture is required.

The successful candidate in Enzymology will have an MS or BS in Biology, Chemistry or related area. Experience in enzyme assays and protein purification is essential. The position requires experience in tissue culture and knowledge of chromatographic techniques.

CIBA-GEIGY offers competitive salaries, excellent benefits, superb research facilities and opportunity for substantial professional growth. Please send your resume in confidence, indicating position of interest, to: Staffing Center, Dept 340376, CIBA-GEIGY Corporation, Pharmaceuticals Division, 556 Morris Avenue, Summit, New Jersey 07901. We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

# CIBA-GEIGY

## POSITIONS OPEN

### FISH BIOLOGIST

Tenure-track position in the interdisciplinary Marine Science Program at the **JUNIOR FACULTY LEVEL**. Applicants must have a Ph.D., and postdoctoral training is preferred. Research capabilities should include empirical field and/or laboratory experimental studies. Population dynamics and familiarity with molecular approaches in ecology are desirable. Teaching responsibilities will include undergraduate courses in ichthyology, marine biology, and a graduate-level specialty course. This position is in the Marine Science Program and the Department of Biological Sciences and will be available after July 1, 1993. The successful candidate will be expected to establish an externally-funded research program with graduate/undergraduate training as an integral component. Applicants should send curriculum vitae, statement of research plans and interests, and three letters of reference by **16 October 1992** to: **Dr. R. J. Feller, Search Committee Chair, Marine Science Program, University of South Carolina, Columbia, SC 29208; telephone: (803) 777-2692. The University of South Carolina is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION.** Available immediately for a period of two years to study in a murine model the influence of macrophage on erythropoiesis. Techniques to be used include hematopoietic progenitor cell purification and their culture and FACS scan. Experience in *in vivo* experimentation is helpful. Send curriculum vitae and the names of three references to: **K. B. Udupa, Ph.D., GRECC, V.A. Medical Center, 4300 West Seventh Street, Little Rock, AR 72205. Telephone: 501-661-1202, Ext. 3033; FAX: 501-660-2034.**

**TWO POSTDOCTORAL POSITIONS** available to study structure and function of proteinase inhibitors by molecular cloning and site-directed mutagenesis. Candidates with molecular and biochemical experience preferred. Send curriculum vitae, reprints, and names of three references to: **Dr. Hideaki Nagase, Department of Biochemistry and Molecular Biology, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160-7421. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION

2D and 3D NMR studies of proteins and phospholipids. To work with senior investigator on new 500 MHz multidimensional NMR facility to be installed in early 1993. Current instrumentation includes 400 MHz high resolution and 250 MHz broad band NMR spectrometers. Several years of experience in 2D NMR of proteins is essential. Knowledge of computer methods for protein structure determination is an asset. Salary commensurate with qualifications. Send résumé to: **Dr. R.J. Cushley, Chemistry Department, SIMON FRASER UNIVERSITY, Burnaby, B.C. CANADA V5A 1S6.**

**POSTDOCTORAL POSITION** in an exciting and well-funded Pulmonary research laboratory investigating molecular biology of pneumonia. "Hands on" experience with recombinant DNA technology including purification of mRNA, construction and screening of cDNA libraries, expression of cloned genes, site-directed mutagenesis, or PCR is desired. Experience in microbiology is preferred, but not required. Send curriculum vitae and names of three references to: **Dr. W. J. Martin, Indiana University School of Medicine, 425 Wishard OPW, 1001 West 10th Street, Indianapolis, IN 46202.**

**POSTDOCTORAL POSITION IN RECEPTOR-MEDIATED CARCINOGENESIS** is available immediately for a recent graduate to study the tumor promoting effects of environmental chemicals whose actions are transduced via cellular receptors. Experience in molecular/cellular biology and cell culture techniques is required, as is a strong interest in tumor promotion, cell proliferation, and signal transduction. Research will focus on comparative mechanistic studies of tumor promotion/cell transformation in rodent and human target tissues, and investigate potential cross-talk between transduction pathways. Send curriculum vitae and names of three references to either: **Dr. Thomas R. Sutter** or **Dr. James D. Yager, Division of Toxicological Sciences, Johns Hopkins School of Hygiene and Public Health, Room 7032, 615 North Wolfe Street, Baltimore, MD 21205. Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** To participate in an NIH-funded program on alterations of host defense induced by thermal injury. Project involves determining subcellular mechanisms responsible for neutrophil dysfunction (i.e., alterations in signal transduction and regulatory mechanisms). Stipend of \$28,000 to \$32,000 (dependent on experience) and fringe benefits. *United States citizenship or permanent residence required.* Submit curriculum vitae and names of three references to: **Dr. Ann Bjornson, Director, Division of Immunology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION.** Available immediately to study the mechanism of transmitter-interactions in the basal forebrain using *in situ* hybridization and other neuroanatomical methods. Experience in molecular biology is required. Salary commensurate with experience. Send curriculum vitae and names of three references to: **L. Zaborsky, M.D., Ph.D., Department of Neurology, Box 394 University of Virginia Health Science Center, Charlottesville, VA 22908. FAX: (804) 924-5439. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** To study the structure, function, and regulation of the receptors for tumor necrosis factor and the translational regulation of gene expression through hormone-induced phosphorylation of initiation factors. Experience in molecular biology and protein biochemistry desirable. Please send curriculum vitae and names and telephone numbers of three references to: **Dr. David B. Donner, Department of Physiology and Biophysics, Indiana University (IU) School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202. IU is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available July 1992 to study the structural basis of nicotinic acetylcholine receptor and GABA<sub>A</sub> receptor function using directed mutagenesis. Familiarity with molecular biology techniques required; patch clamp experience preferred. Salary: \$22,000 with health benefits. Send curriculum vitae and three references to: **Dr. Michael P. McCarthy, Center for Advanced Biotechnology and Medicine, and Department of Pharmacology, UMDNJ-Robert Wood Johnson Medical School, 679 Hoes Lane, Piscataway, NJ 08854. An Affirmative Action/Equal Opportunity Employer, M/F/H/V.**

**POSTDOCTORAL POSITION**, starting August 1992, to investigate the structure, function and biosynthesis of bacterial methylamine dehydrogenase, with a focus on its novel tryptophan tryptophylquinone redox cofactor (*Science* 252, 817-824: 1991). Studies involve using site-specifically-mutated forms of the enzyme, that are selected on the basis of the solved x-ray structure. Requires experience with protein chemistry and enzyme mechanistic studies. Curriculum vitae and letters of reference to: **Dr. William S. McIntire, VA Medical Center (151-S), 4150 Clement Street, San Francisco, CA 94121.**

**POSTDOCTORAL POSITION** available to study repair of radiation-induced DNA damage in human cells. Primary research involves characterization of human enzymes, that repair radiation- and bleomycin-induced DNA strand breaks (see *Nucleic Acids Research* 20:2573-2580, 1992). Other research areas include mechanistic studies of DNA repair inhibitors, modulation of cellular DNA repair by gene expression vectors, and the role of DNA synthesis in cellular radioresistance. Experience in DNA damage and repair, enzymology, or radiochemistry is required. Interested individuals should send curriculum vitae and names of three references to: **Dr. Timothy Jorgensen, Department of Radiation Medicine, Georgetown University Medical Center, 3800 Reservoir Road, N.W., Washington, D.C. 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available to study the molecular physiology of epithelial potassium channels. Eligible candidates must hold M.D. or Ph.D. degree. Salary will depend on qualifications and *United States citizenship is not required.* Starting date is October 1, 1992. Please send curriculum vitae and names of three references to: **Dr. Gary V. Desir, Yale University School of Medicine, 333 Cedar Street-LMP 2073, New Haven, CT 06510. Equal Opportunity Employer/Affirmative Action.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION IN THE DEVELOPMENTAL NEUROBIOLOGY OF THE NEURAL CREST

Position available to investigate the mechanisms of cell determination and differentiation during neural crest morphogenesis. Current studies employ a variety of approaches including fluorescence activated cell sorting (Neuron 1:557; Journal of Neurobiology 22:276), analysis of the role of extracellular matrix components (Developmental Biology 141:233) and molecular biology (Society for Neuroscience Abstracts 17:925). Strong background in cell and molecular biology required. Excellent salary and benefits. Farmington is located just outside of Hartford, about midway between Boston and New York, and is the site of the University of Connecticut Schools of Medicine and Dental Medicine.

Please send curriculum vitae and three letters of reference to:

**Dr. Gerald Maxwell  
Department of Anatomy, Room L-4000  
University of Connecticut Health Center  
263 Farmington Avenue  
Farmington, CT 06030-3405**

*The University of Connecticut Health Center is an Equal Opportunity/Affirmative Action Employer.*

**FIVE POSTDOCTORAL POSITIONS** available 1993 on Training Grant to support studies in the area of diabetes and hormone action; regulation of insulin secretion in pancreatic beta cells; molecular mechanisms of receptor based signal transduction pathways. Applicants should have M.D. or Ph.D. degree and be *United States citizens or equivalent.* Send curriculum vitae and names of three references to: **Dr. John R. Williamson, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104. FAX: 215-898-9918. Equal Opportunity Employer.**

Two **POSTDOCTORAL POSITIONS** are available immediately for study of seed enzymes. Position A is for the study of enzymology/molecular biology of seed  $\alpha$ -glucosidases including the characterization of reaction kinetics, active site structure and composition, and thermostability of the native enzymes and of enzymes altered via site-directed mutagenesis. Position B is for the study of the biochemistry of the endoproteases of germinating barley including enzyme purification and characterizations. Research experience in enzymology and protein chemistry is necessary for either position. Experience in molecular biology is desired for position A. For position A send curriculum vitae and three letters of reference to: **Dr. C. A. Henson, USDA-ARS-Cereal Crops Research Unit, University of Wisconsin, 1575 Linden Drive, Madison, WI 53706; telephone: 608-262-0377.** For position B send same to: **Dr. B. L. Jones, USDA-ARS-Cereal Crops Research Unit, University of Wisconsin, 501 North Walnut Street, Madison, WI 53705.**

### TWO POSTDOCTORAL POSITIONS

Available immediately for: 1) Ph.D. in Biochemistry to work on minor histocompatibility antigens (experience in HPLC required), 2) Ph.D. in Biochemistry/Molecular Biology to work on detection of minimal residual disease following treatment with immunotoxins (experience with PCR required). Send curriculum vitae to: **Dr. C. Perreault, Director, Research Center, Maisonneuve-Rosemont Hospital, 5415 de l'Assomption boulevard, Montreal, Quebec, Canada H1T 2M4.**

**POSTDOCTORAL POSITION (Plant Molecular Genetics and Breeding)** to work on genetic transformation and breeding of sweetpotato and peanut. Ph.D. with experience in vector construction, plant transformation, gene expression and PCR. Send résumé and names of three references to: **Dr. P. A. Loretan, School of Agriculture and Home Economics, Tuskegee University, Tuskegee, AL 36088. Telephone: (205) 727-8333; FAX: (205) 727-8493. Women and minorities are encouraged to apply.**

**SCIENCE** welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

**FAX NUMBER: 202-682-0816**



## THE WORLD HEALTH ORGANIZATION

seeks  
a highly qualified scientist  
for the post of **DIRECTOR**

### OF THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) LYONS, FRANCE

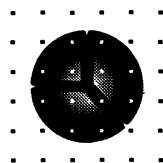
The selection will be made in April 1993. The term is initially for five years with possibility of renewal. The person selected will be expected to take up the post on 1 January 1994.

The ideal candidate should have extensive international experience, a substantial scientific reputation in the field of cancer research, preferably in epidemiology or carcinogenesis; demonstrated qualities of leadership, integrity and managerial ability; excellent knowledge of English or French, and preferably a good working knowledge of the other.

Salary level is US\$67,436 per annum plus a cost of living element which is currently US\$36,955 for a staff member without dependents, and US\$74,571 plus a cost of living element of US\$40,865 for a staff member with dependents, plus allowances. Salaries and allowances are net of tax.

#### Apply with **curriculum vitae** to:

Director-General World Health Organization 20, Avenue Appia CH-1211 Geneva 27 Switzerland FAX No (41-22) 791 07 46	with a copy to: Dr. D. C. Evered Chairman, IARC Search Committee c/o Medical Research Council 20 Park Crescent GB-London W1N 4AL United Kingdom FAX No. (44-71) 580 43 69
---	--



### The Immune Response Corporation

THE IMMUNE RESPONSE CORPORATION has a postdoctoral position available to study T cell immunoregulation in Autoimmune Disease at our suburban San Diego R&D facility. Experience in cellular immunology and/or molecular biology is desired.

Interested candidates should forward their curriculum vitae to:

**Chief Scientific Officer  
The Immune Response  
Corporation  
5935 Darwin Court  
Carlsbad, CA 92008  
Ref: Postdoctoral Fellow**

**EQUAL OPPORTUNITY EMPLOYER**

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC, represents Glaxo's continued commitment in the pharmaceutical industry to the discovery of drugs for unmet patient needs. Scientists engaged in Glaxo's expanding research and development programs at the Center have a premier facility in which to work.

We invite you to experience the challenges and accomplishments a future with us holds for you. The following opportunities are now available.

## SENIOR SCIENTIST *Protein Chemistry*

The selected individual will join our team of scientists on structure-based drug design. This involves collaborative projects using molecular biology, expression, peptide medicinal chemistry, amino acid sequencing and analysis, molecular modeling, mass spectroscopy, NMR, and X-ray crystallography.

This is a Ph.D. level position requiring a minimum of 2 years relevant experience and broad knowledge of protein structure-function relationships, protein-protein and receptor interactions, and protein chemistry. Interest and experience in the regulation and characterization of effector proteins involved in signal transduction is required. Preference will be given to individuals having experience in some of the following techniques: CD, fluorescence, and small-angle light scattering spectroscopy, analytical ultracentrifugation, microcalorimetry, BIAcore, and enzyme/receptor assay development. Individuals must possess excellent communication skills and have the ability to work effectively in a team setting.

Please refer to Job # 9141B305-SC on all resumes.

## POSTDOCTORAL FELLOW *Biochemistry*

Successful candidate will join a multi-disciplinary team studying the role of the enzyme Salpha-reductase in human disease. Additionally, individual will conduct enzymological studies.

We seek a Ph.D. with 0-3 years relevant experience. Experience in protein chemistry and/or enzymology is preferred.

Please refer to Job # 9127T005-SC on all resumes.

Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world famous scientific, industrial and academic community in Research Triangle Park, NC. Send your resume, **INDICATING THE CORRESPONDING JOB #** and salary history, to: **Human Resources Department, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/D/V.

# Glaxo Inc.

## POSTDOCTORAL FELLOWSHIP IMMUNOLOGY

A postdoctoral position is currently available in the Immunology Department at the Marion Merrell Dow Research Institute in Cincinnati, Ohio.

The successful candidate should have a Ph.D. with a strong background and considerable experience in molecular biology. An interest in immunology and autoimmunity is also required. The proposed project will include analyses of the structural bases for T cell recognition of the MHC Class II – peptide complex using site directed mutagenesis. The fellowship is for one year, with a renewable second year, and will be an integral part of our program aimed at developing novel approaches to the treatment of rheumatoid arthritis.

Please send curriculum vitae and three references to: Ms. Sharon George, Human Resources Dept., Marion Merrell Dow Inc., 2110 E. Galbraith Rd., Cincinnati, OH 45215

An equal opportunity employer



MARION MERRELL DOW INC.

COLORADO

## Pharmaceutical Biochemist

Somatogen, a biopharmaceutical company currently engaged in the development and manufacture of a recombinant human hemoglobin, has an immediate opening for a Pharmaceutical Biochemist in our research laboratory. Successful candidates will be self-motivated individuals with a desire to be part of a team involved in cutting edge technology.

Responsibilities include performing studies on bulk and formulated protein based pharmaceuticals, development of dosage forms for clinical and commercial use, development of appropriate final product testing methodologies and designing and conducting stability studies for regulatory filing.

The successful candidate will be an M.S. with 2-4 years or a Ph.D. with 1-2 years in the chemical/biological fields and will have demonstrated competent analytical skills and sound understanding of pharmaceutical processes and cGMP's. Experience with protein pharmaceuticals is desired, as well as a strong background in physical chemistry and/or analytical chemistry. Prior industry experience is a plus.

A competitive salary and benefits package complement this offer. Interested candidates may submit their resume and cover letter indicating "Pharmaceutical Biochemist" to:

**Nancy Borne, Manager, Professional Development.**

## SOMATOGEN

5797 Central Avenue, Boulder, Colorado 80301  
An Equal Opportunity Employer

## RESEARCH SCIENTISTS

*RHÔNE-POULENC RORER RESEARCH & DEVELOPMENT, a global leader in pharmaceutical research, currently has the following opportunities available in their new Collegeville, PA World Headquarters.*

### Drug Disposition

**ASSOCIATE RESEARCH SCIENTIST/RESEARCH SCIENTIST** – Candidate will be responsible for the isolation and validation of microsomal preparations, dosing small models with inducers and inhibitors for generation of specialized microsomes for probing the metabolic pathways for various compounds, and for generating drug metabolite profiles from the above incubates using either radiolabeled or nonlabeled compounds. Incumbent must be experienced in purification of P-450 and/or transferases involved in Phase II conjugation metabolism. Immobilization of proteins an added plus. HPLC helpful, but not necessary. MS with 4 years experience or Ph.D. in Biochemical Pharmacology or related fields required. Post doc preferred, but not necessary. **(Position #91R-142/KB/LLS)**

### Immunology/Cell Biology

**SENIOR RESEARCH SCIENTIST** – Candidate will perform research in the area of signal transduction, development of assay systems, and biological characterization of clinical candidates. A Ph.D. in Cell Biology or Molecular Biology and a minimum of 3 years experience in cell biology and molecular biology in the areas of mechanisms of signal transduction required. **(Position #92R-134/AZ/LLS)**

RHÔNE-POULENC RORER offers a highly competitive salary, excellent benefits, a challenging professional work environment and opportunities for continued growth. For confidential consideration, please forward your resume and salary history, to: **RHÔNE-POULENC RORER RESEARCH & DEVELOPMENT, Human Resources Dept., Mail Stop H37, (INDICATE POSITION #) 500 Arcola Road, P.O. Box 1200, Collegeville, PA 19426.** Equal Opportunity Employer, M/F/D/V.



**RHÔNE-POULENC RORER**

## KAROLINSKA INSTITUTE CENTER FOR BIOTECHNOLOGY

### Postdoctoral research assistant (two positions)

The Center for Biotechnology is a competitive, scientifically attractive and well equipped centre within the sphere of molecular biology. Approx. 100 scientists and technical assistants are active within this center. Important research areas include steroid receptors, intracellular sorting of membrane proteins and immunogenetics.

The two positions are within our program for orphan receptors; this type of receptors constitutes an exciting new development in the field of the nuclear receptor supergene family.

The positions as postdoctoral research assistant are initially for two years with possibilities for extension up to four years. Preference is given to applicants with experience in molecular biology and protein purification.

Applications should be sent to **Professor Jan-Åke Gustafsson, Center for Biotechnology, NOVUM, S-141 57 HUDDINGE, Sweden**, together with CV, relevant publications and names of two references.



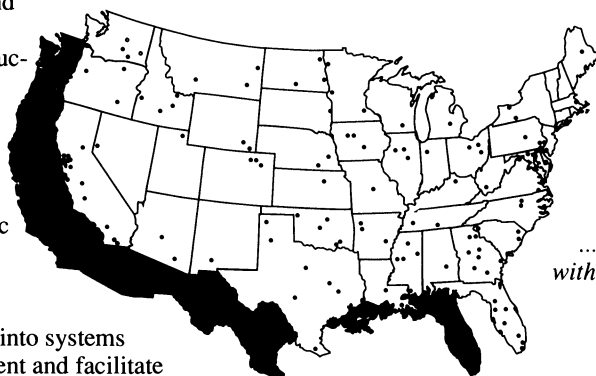
United States Department of Agriculture  
Agricultural Research Service

## Career Opportunities With a Leader in Agricultural Research

**A**s the largest organization in the world dedicated to scientific agricultural research, ARS offers you the opportunity to select the discipline and location most in keeping with your experience and desire for professional growth.

USDA-ARS research is directed toward the following objectives:

- Managing and conserving soil and water resources
- Maintaining and increasing productivity and quality of crop plants
- Increasing the productivity of animals and the quality of animal products
- Achieving maximum use of agricultural products for domestic and export markets
- Improving human nutrition and family resource management
- Integrating scientific knowledge into systems that optimize resource management and facilitate transfer of technology to users



Currently, ARS has excellent career opportunities in a variety of locations in the following disciplines: chemistry, plant physiology, plant pathology, molecular biology, human nutrition, genetics, microbiology, engineering, entomology,

For more information on specific locations and how to apply, contact:

**U.S. Department of Agriculture  
Agricultural Research Service  
Personnel Division (SI)  
6305 Ivy Lane, Room 128  
Greenbelt, MD 20770-1435  
(301) 344-1886**

*...An equal opportunity employer  
with positions available nationwide*

## Research Opportunities

SyStemix is an innovative Northern California biotechnology company utilizing revolutionary technology, our SCID-hu mouse model, for the study of human disease and its treatment. We are also pioneering the clinical use of cellular therapies, focusing on the human stem cell, its identification and characterization, its growth in response to novel factors, and its potential use in cancer treatment.

Today, we seek talented R&D professionals with expertise in the following areas:

- **Hematopoiesis research:** cell biology, factorology, and preclinical pharmacology
- **Monoclonal antibody development**
- **Development of hematopoietic cells and growth factors for clinical applications:** mammalian cell culture, cell separation methods development, and cell product characterization
- **Immunochemistry:** antibody isolation, purification, and conjugation
- **Carbohydrate and/or nucleic acid chemistry**

Candidates should have a PhD, MS, or BS in a related scientific discipline and 2+ years' industry experience.

Please send your resume to SyStemix, Inc., Attn: Human Resources, 3400 W. Bayshore Road, Palo Alto, CA 94303. Or FAX it to Dept. SCI-7/17 at (415) 856-4919. EOE.



### Applications for Project Development Visits, 1993 Eastern Europe and the Former Soviet Union

The National Academy of Sciences (NAS) invites applications from American scientists who wish to **travel to** or **host colleagues from** the former Soviet Union, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, or the former Yugoslavia. The two week project development visits are intended to provide American scientists with opportunities to work with foreign colleagues in developing collaborative research proposals for submission to the National Science Foundation for funding.

All application materials must be completed by the American scientists, who must possess U.S. citizenship, or obtain U.S. citizenship at least six months prior to the requested beginning date of the visits. Foreign scientists cannot submit applications independent of American scientists.

American and foreign scientists must possess doctoral degrees or their equivalent at least six months prior to the requested beginning date of their visits. Proposals are invited in the following fields: physics; chemistry; mathematics and computer sciences; earth, atmospheric, and oceanographic sciences; agricultural, forestry, fishery, and plant sciences; biological sciences; environmental sciences; engineering; archaeology and anthropology; geography; psychology; science and technology policy; and the history and philosophy of science. Projects in the economic and social sciences that involve development of new analytical methodologies will be considered on a case-by-case basis.

Applicants are expected to make all logistical and administrative arrangements for the visits since the NAS will no longer organize exchange programs through counterpart academies of sciences.

American scientists interested in the 1993 NAS grants to help **defray the travel/host costs** should submit applications by the appropriate deadline dates. Amount of these grants (up to \$2200) will be based on geographic location of Americans and costs to be incurred.

**Deadlines:** **September 30, 1992** for travel/host January-June 1993  
**February 28, 1993** for travel/host July-December 1993

**Requests for application packets:** Office for Central Europe and Eurasia (FO2014); National Academy of Sciences; 2101 Constitution Avenue, NW, Washington, DC 20418; Telephone\*: 202-334-3680; Fax: 202-334-2614

\*Please specify "NAS Project Development Exchange Program, 1993"

## MOLECULAR VIROLOGY

Faculty-Level Position at the NIH

A tenured/tenure-track position is available in the Laboratory of Viral Diseases, NIAID, NIH. The Laboratory is located on the intramural campus of the NIH in Bethesda, Maryland, and has outstanding facilities and resources. It comprises five independent sections and is similar to a small academic department. Current interests of the present staff include: regulation of viral gene expression; DNA replication and recombination; virus receptors; assembly of virus particles; mechanisms of viral pathogenesis; cell mediated immunity to viruses and antigen processing; and new approaches to vaccines and antiviral agents. The successful applicant will receive resources to establish and maintain an independent research program involving molecular virology. Salary will be commensurate with experience.

Applications should include a c.v. with bibliography, a statement of research interests and the names and addresses of three references. Applications should be sent to:

**Dr. Bernard Moss, Chairman  
Search Committee  
Laboratory of Viral Diseases, NIAID  
National Institutes of Health  
Building 4, Room 229  
9000 Rockville Pike  
Bethesda, MD 20892**

NIH is an Equal Opportunity Employer



### BECKMAN RESEARCH INSTITUTE CENTER FOR GENE THERAPY CITY OF HOPE MEDICAL CENTER CELL/DEVELOPMENTAL BIOLOGIST

The Center for Gene Therapy at the City of Hope invites applications from cell or developmental biologists with research interests in the area of embryonic or hematopoietic stem cells. The program in gene therapy will interact with existing programs in either molecular biology, immunology, neurosciences, virology, marrow transplantation, cancer biology, or genetics. The recruited investigator will have an academic appointment in an existing department in either the Beckman Research Institute of the City of Hope or the City of Hope Medical Center and will utilize resources available in the newly created **CENTER FOR GENE THERAPY**. Applications should include a letter of interest describing an area of proposed research, curriculum vitae and the names and addresses of at least three references. Send to: **John A. Zaia, M.D., Chairman of Search Committee, Center for Gene Therapy, City of Hope, 1500 E. Duarte Rd., Duarte, CA 91010.** The City of Hope is an affirmative action/equal opportunity employer.

## POSITIONS OPEN

### POSTDOCTORAL POSITION MOLECULAR NEUROBIOLOGY, UCLA

Well-funded systems neurobiology laboratory studying control of movement seeks a molecular biologist to study properties of functionally defined neurons in a novel *in vitro* system (*Science* 254:726-729, 1991). The goal is to establish unique molecular markers and genetic properties. Send curriculum vitae, including references to: **Jack L. Feldman, Ph.D., Department of Physiological Science, UCLA, 405 Hilgard Avenue, Los Angeles, CA 90024-1527.**

### POSTDOCTORAL POSITIONS VANDERBILT UNIVERSITY

Several positions available in August at Vanderbilt University School of Medicine. Research involves design of HIV vaccine and protein engineering. Training in immunology, lipid/liposome chemistry or peptide/protein chemistry is essential. Send curriculum vitae and names of three references to: **Dr. James P. Tam, Department of Microbiology and Immunology, A5301 Medical Center North, Vanderbilt University, Nashville, TN 37232-2363.** Vanderbilt University is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS** available in a Multidisciplinary Neuroscience Laboratory to study either neuronal-glial interactions affecting astrocytic calcium levels in brain slices using confocal microscopy or regulation of gap junction communication between astrocytes *in vitro* and *in vivo* using biochemical and molecular approaches. Interested applicants should have a strong background in neurobiology and/or molecular biology. Applications should be sent to: **Ken D. McCarthy, Ph.D.; Department of Pharmacology; CB# 7365; University of North Carolina; Chapel Hill, NC 27599-7365.**

**POSTDOCTORAL POSITIONS** available to study the effects of cytokines on the proliferation/differentiation of hematopoietic stem and progenitor cells at a cellular, intracellular and molecular level. Experience in cell cultures as well as in signal transduction and/or cell division cycle genes is desired. Please send curriculum vitae and names of three references to: **Hal E. Broxmeyer, Ph.D., Scientific Director, Walther Oncology Center, Indiana University School of Medicine, Room 501-975 West Walnut Street, Indianapolis, IN 46202-5121.** Walther Oncology Center is an Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS PLANT HORMONE BIOCHEMISTRY

Two positions: 1) Examination of the role of seeds and auxin on the control of gibberellin biosynthesis in pea tissue (Mark L. Brenner); 2) Purification and characterization of the receptor for N-1-naphthylphthalamic Acid (NPA), a membrane site involved in polar auxin transport (Gary M. Gardner). Minimum Requirements: Ph.D. in Plant Physiology, Biochemistry, or related area. Desired: Position 1) Experience in biochemistry and analysis of plant hormones; Position 2) Experience in the biochemistry of plant membrane proteins. Application deadline is August 31, 1992. Send curriculum vitae, a brief statement of research experience and interests, and names, addresses, and telephone numbers of three references to: **M. L. Brenner or G. M. Gardner, Department of Horticultural Science, University of Minnesota, 305 Alderman Hall, St. Paul, MN 55108.** Inquiries: (612) 626-0309 (MLB) or (612) 624-3606 (GMG). The University of Minnesota is an Equal Opportunity Educator and Employer.

**POSTDOCTORAL FELLOWSHIP.** The Department of Urology is expanding its basic research efforts under George F. Hemstreet, M.D., Ph.D., and Robert E. Hurst, Ph.D., in several areas, including biomarkers for cancer and other urologic diseases, stromal-epithelial interactions, molecular genetics of urologic cancer, growth and differentiation of cells of the genitourinary tract and chemoprevention and tumor biology-metastasis. Send curriculum vitae, statement of background and goals, and names of three references to: **Postdoctoral Fellow Search, Department of Urology, Oklahoma University Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190.** Applications from women and minorities are encouraged.

## POSITIONS OPEN

**POSTDOCTORAL TRAINING POSITIONS** to study signal transduction pathway from insulin receptor to MAP and S6 kinases (*J. Biol. Chem.* 267:3325, 1992) and nucleus (*Nature* 353:670, 1991). Experience with recombinant DNA, mammalian expression systems and/or protein purification/enzymology desired. Start September 1, 1992 and thereafter. Send curriculum vitae, summary of past work and three references to: **J. Avruch, Chief, Diabetes Research Labs, MGH East, Building 149, 13th Street, Charlestown, MA 02129** (telephone: 617-726-6909/FAX: 617-726-5669).

### POSTDOCTORAL/RESEARCH ASSOCIATE

Position available for cytogeneticist to study interactions between DNA and carcinogenic and chemotherapeutic chemicals. Requires experience in DNA biochemistry, DNA adduct quantitation by immunoassay, chemical-DNA localization (in cells, tissues and chromosomes) by immuno-histochemistry, analysis of chromosomal abnormalities and cell culture. Salary range: \$40,500 to \$44,500. Send curriculum vitae and names of three references to:

**Dr. Miriam C. Poirier  
NCI, Building 37, Room 3B12  
Bethesda, MD 20892**

### UNIVERSITY OF PENNSYLVANIA POSTDOCTORAL RESEARCH POSITIONS

NIH-funded positions available September, 1992 in Intestinal Molecular Research Laboratory to study the regulation of intestine-specific gene transcription and intestinal development and differentiation. Projects include: 1) Functional characterization of an evolutionarily conserved intestine-specific promoter element and isolation/cloning of its cognate DNA binding proteins (JBC 1992;267:7863, Mol. Cell. Biol. 1992, Aug.); 2) Elucidation of the mechanisms that regulate spatial and developmental gene expression in the intestine using normal and transgenic mice. Experience in molecular biologic techniques is required; experience in protein biochemistry is preferred. Please send curriculum vitae, statement of research interests, and three letters of reference to: **Dr. Peter G. Traber, Department of Medicine, University of Pennsylvania School of Medicine, Clinical Research Building, Suite 600, 422 Curie Boulevard, Philadelphia, PA 19104-6144.** Telephone: (215) 898-0154, FAX: (215) 573-2024. Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL/RESEARCH ASSOCIATE CELLULAR BIOLOGY/BIOCHEMISTRY

Position available for an individual to assist in research involving regulation of cell proliferation by lipids and related substances in transfected cells. Interested candidates please send curriculum vitae to: **SS, c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral position available immediately in the Department of Biochemistry and Molecular Pathology to participate in a NIH-funded project on the study of molecular mechanism of the regulation of bile acid synthesis and cholesterol homeostasis, the heterologous expression, mutagenesis and polymorphism of cholesterol 7 $\alpha$ -hydroxylase. Experience in molecular biology and biochemistry are prerequisites. Send résumé to: **Dr. John Y.L. Chiang, Department of Biochemistry and Molecular Pathology, Northeastern Ohio Universities College of Medicine, P.O. Box 95, Rootstown, OH 44272.**

### RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW

Well funded research program seeks research associate/postdoctoral fellow to collaborate in integrative investigation of neuro-humoral reflex control of the cardiovascular system at rest and during dynamic exercise in conscious, chronically instrumented animals. Ph.D. and/or M.D. required plus experience in animal surgery/instrumentation. Preference given to United States citizens. Very competitive salary/benefits package. Send curriculum vitae, salary history and names of three references to: **Donal S. O'Leary, Ph.D., Department of Physiology, Wayne State University School of Medicine, Detroit, MI 48201.** Wayne State University is an Equal Opportunity/Affirmative Action Employer.





## Innovation & Efficiency

Using innovation to improve the efficiency of molecular biology research products has been the cornerstone of Stratagene's development since our founding in 1984. With more than 200 employees and 500 products, Stratagene is now seeking candidates for the following positions:

### MARKETING PRODUCT MANAGERS

We have immediate openings for a Molecular Biology and a Cell Biology Marketing Manager. Individuals will be responsible for facilitating the process of moving newly developed products from the laboratory to the marketplace and for developing marketing plans to continue to promote existing products. Responsibilities will also include competitive market analysis, technical writing, training, and interfacing with the company and customers. Successful candidates will have strong understanding of the respective markets, sales or marketing experience, and strong written and verbal communication skills.

### TECHNICAL SALES REPRESENTATIVES

We are expanding our sales force and are in search of qualified candidates. Immediate openings are available in New England and Northern California, and other openings will become available during the year. Candidates should have strong practical experience in Molecular Biology or related field. Prior sales experience is beneficial.

We offer a competitive salary, incentive and benefits program. Please send your resume and a letter of interest to: **STRATAGENE**, Attn: Professional Staffing, 11099 N. Torrey Pines Rd., La Jolla, CA 92037. AA/EOE.



**STRATAGENE®**

## RESEARCH SCIENTISTS

Hybritech Incorporated, a \$100 million subsidiary of Fortune 100 Eli Lilly and Company and a recognized leader in the manufacturing and marketing of *in vitro* diagnostic tests utilizing monoclonal antibody technology, has two immediate and challenging opportunities for Research Scientists supporting our Diagnostics R&D group.

One position involves responsibilities for assay and process development of new products. A PhD is required, preferably in Analytical Chemistry. Protein biochemistry or immunochemistry training and immunoassay development experience are a plus.

Responsibilities for the second position include guiding the development of immunoassays relating to skeletal diseases and coordination of R&D activities with external companies and collaborations. The ideal candidate will have a PhD trained in bone biology or bone biochemistry, with 5-10 years' related experience. Immunoassay development experience is desirable.

Hybritech offers a stimulating work environment and competitive salaries and benefits. Please send your resume to: **HYBRITECH INCORPORATED**, Human Resources SM/SCI-7-17-92/RS, P.O. Box 269006, San Diego, CA 92196-9006. We are committed to diversity in our workforce/EOE.

TEAM

**Hybritech**  
INCORPORATED

## Staff Scientist

The Health Effects Institute (HEI), a nonprofit organization that serves as an independent and unbiased source of information on the health effects of motor vehicle emissions, has an immediate opening for a Review Staff Scientist. HEI-funded research projects are subjected to a rigorous peer-review process prior to publication of final reports. The Review Staff Scientist will: serve as a liaison among investigators, the HEI Review Committee and editors during the review process; develop commentaries that put the research findings into scientific and public policy contexts; write critical reviews.

Applicants must have: a doctoral degree in biomedical or environmental sciences; post-doctoral research experience; and an interest in science management and science communication. The successful candidate must also have excellent writing skills and an ability to communicate technical information to the scientific community and the general public. Experience in chemical or molecular toxicology, biochemistry, or carcinogenesis is particularly desirable.

Please respond by sending a curriculum vitae, a recent writing sample, and the names, addresses and phone numbers of three references to: **Dr. Kathleen M.**

**Nauss, Director for Scientific Review and Evaluation, Health Effects Institute, 141 Portland Street, Suite 7300, Cambridge, MA 02139.** An Affirmative Action/Equal Opportunity Employer.

**HEI**

The Health Effects Institute

## ■ Senior Scientists ■ Postdoctoral Fellows ■ Research Associates

A new department of the Johnson and Johnson Company located within The R.W. Johnson Pharmaceutical Research Institute seeks candidates to join a group of scientists in the Skin Biology Research Center investigating the basic mechanisms underlying the structural and molecular biology of hair growth. Scientists specifically interested in the problems of molecular biology of growth and development, and in reverse genetics are sought. Senior Scientist positions require at least 2 years of postdoctoral training. Research Associates require BS/MS and at least 2 years of bench experience with molecular biology/nucleic acids techniques.

The positions provide liberal research support, excellent library facilities, and a good benefits package. Although outside grant support is not required, publication of experimental results will be strongly encouraged.

Ours is a smoke free workplace ideally located in central New Jersey ... midway between New York City and Philadelphia. Please submit your curriculum vitae with the names of 3 references to: P. Merski, Human Resources Dept. 2, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602. An Equal Opportunity Employer, M/F



THE R.W. JOHNSON  
PHARMACEUTICAL RESEARCH INSTITUTE  
a Johnson & Johnson company



**MOLECULAR, BIOLOGY, GENETICS AND GENE THERAPY RESEARCH  
ASSISTANT, ASSOCIATE OR FULL PROFESSOR**

Candidates are being sought with special research interests in molecular biology and genetics as they relate to human gene therapy. Several tenure track positions are available. Candidates with a wide range of interests will be considered including research activities involving development of mouse and other models for human genetic disease, homologous recombination in embryonic stem cells, transgenic animal preparation, development of gene transfer vehicles including retroviruses and genetically engineered cells, the molecular genetics and biology of stem cells and cytokines, and the molecular genetics of human disease. Clinically based research will also be an important component of program. Successful candidates must have a Ph.D. or M.D. degree and be capable of developing an independent research program and participating in both medical and graduate student teaching programs. Candidates will be appointed to faculty positions in an appropriate basic science or clinical department. Faculty members will be housed within newly remodeled space in the Institute for Genetic Medicine/Norris Comprehensive Cancer Center Gene Therapy Program.

The University of Southern California and its Medical School have made a major commitment to building a program in gene therapy and the molecular basis of disease. The faculty members will play a major role in defining the rapid future expansion of the Institute for Genetic Medicine.

Candidates should send their Curriculum Vitae and the names of three references to:

Laurence H. Kedes, M.D.  
William Keck Professor of Biochemistry and Medicine  
Director, Institute for Genetic Medicine  
University of Southern California  
2011 Zonal Avenue, HMR #413  
Los Angeles, CA 90033

The University of Southern California is an equal affirmative action employer.

## Advancement in Science Begins at Bio-Rad Laboratories

We are Bio-Rad Laboratories — a world leader in the fields of life science research products, clinical diagnostics and analytical instruments. Continued growth has created several opportunities in our Northern California Headquarters and in major U.S. cities.

**Group Leader, Software Engineering** — Requires BSCS/EE or equivalent and 5+ years of C programming under UNIX/X Windows (motif). Experience with structured analysis, design and scientific computing are pluses. Must have a proven ability to manage multidisciplinary projects. Dept. #302a.

**Sr. Staff Scientist** — Develop image processing algorithms for instruments used in biomedical research laboratories and other kinds of mathematical algorithms for implementation in C or C++. Requires PhD or equivalent in Applied Mathematics with a focus on image processing and pattern recognition. Substantial skill and experience with image warping, deconvolution and detection are also required. Dept. #302b.

**Software Quality Assurance Engineer** — Develop and apply quality standards and software test plans. Requires BS or equivalent with 2+ years experience in product planning, development and debugging of software programs, excellent documentation, analytical and communication skills. Dept. #302c.

**Diagnostics Sales Representative** — Serve in a highly visible position with excellent opportunities for growth and advancement. Career paths include sales and product management leading to general management. We require a BS or equivalent in a Life Science (MBA, MS or PhD a plus). Successful candidates must be willing to relocate. Dept. #302d.

**Research Associate** — Develop and apply novel DNA diagnostics assays for clinical molecular biology. Requires MS or equivalent and 1+ years independent research experience. Experience with all basic molecular biology techniques, such as nucleic acid preparation, DNA sequencing, DNA amplification, hybridization and cloning. Experience with oligonucleotide chemistry and/or applications helpful. Dept. #302e.

Please send your resume to: Bio-Rad Laboratories, Indicate appropriate Dept. #, 2000 Alfred Nobel Dr., Hercules, CA 94547. EOE M/F/H/V.

**BIO-RAD Bio-Rad Laboratories**

### Pharmaceutical/ Biotechnology: Careers In Industry

This special section, reprinted from the May 8 issue of **SCIENCE** takes an in-depth look at careers in the pharmaceutical and biotechnology industries.

#### Highlighted topics include:

- Challenges and incentives offered by a pharmaceutical or biotechnology firm
- A sampling of salaries for scientists in industry
- How industry salaries compare with university jobs
- "Hot" new fields in industry

Also included are "career stories" from five scientists who made the decision to move to a position in industry.

To order your copy send \$3.00 plus postage to:

**SCIENCE**  
Attn: Corrine Harris  
1333 H Street, N.W.  
Washington, D.C. 20005

Postage (per copy): US: \$1.50  
Int'l Surface: \$2.00  
Int'l Air: \$5.00

Visa and MasterCard orders accepted by fax (202) 682-0816  
For information on bulk orders call (202) 326-6527



**CHAIR  
DEPARTMENT OF  
NEUROSCIENCES  
RESEARCH INSTITUTE OF THE  
CLEVELAND CLINIC  
FOUNDATION**

We are seeking a Chair for a newly formed Dept. of Neurosciences. The Research Institute has a long standing commitment to excellence in basic and applied biomedical research with an annual budget in excess of \$50 million. The formation of this new department recognizes the Clinic's traditional excellence in the treatment of neurological disorders and its commitment to the study of these diseases and basic neurological processes. The successful candidate will possess an outstanding national reputation as a neuroscientist and have the vision and energy to recruit several other talented scientists to build a world-class program. The Chair will be provided with generous space and start-up support including substantial endowment funds. Salary and fringe benefits are highly competitive.

A curriculum vitae and names and addresses of three references should be sent to: **Dr. Paul E. DiCorleto, Search Committee for the Chair of Neurosciences, Cleveland Clinic Research Institute, NC1, 9500 Euclid Avenue, Cleveland, OH 44195.** The Search Committee will receive applications through September 30, 1992.

The Cleveland Clinic Foundation is an Equal Opportunity Employer.

**USDA Forest Service  
Forest Environment Research  
Fisheries, Wildlife,  
and Rangeland Ecology  
Staff Assistant  
\$46,210-\$54,607**

The USDA Forest Service will be seeking applicants for the position of Staff Assistant to provide leadership and coordination of national programs in fisheries, wildlife, and rangeland research. The incumbent assists in formulating policies related to fisheries, wildlife, and rangeland resources, develops research program objectives and budgets, and reviews and coordinates research programs of eight regional experiment stations. The Staff Assistant coordinates Forest Service research programs with other public agencies and private institutions and consults with land management agencies on the application of research results. Major areas of emphasis for Forest Service fisheries, wildlife, and rangeland research include threatened, endangered, and sensitive species; biodiversity; habitat selection; monitoring; the ecology of sensitive ecosystems; and big game/livestock interactions. Candidates may represent a variety of professional backgrounds including wildlife biology/ecology, fisheries biology, rangeland ecology, or plant ecology. Experience in conducting research and managing research programs is preferred. The position is located at Forest Service Headquarters in Washington, DC, and frequent travel is required.

For additional information contact Michael R. Lennartz, Forest Environment Research, USDA, Forest Service, 14th and Independence, SW, Washington, DC 20250 (202-205-1524). To receive a copy of the vacancy announcement along with application materials please call 202-205-1524.

*The Forest Service is an Affirmative Action/Equal Opportunity Employer. Cultural diversity in the workplace is welcomed, and women, members of minority groups, and people with disabilities are encouraged to apply.*

# Prize Competition

announced by the

## Anna - Monika - Foundation

for the investigation of the biological substrate and functional disturbances of depressions by approval of the Minister of the Interior of Nordrhein-Westfalen, Düsseldorf, 9th June, 1965

The Foundation announces the following prizes:

<b>First Prize</b>	<b>US-Dollars</b>	<b>15.000,-</b>
<b>Second Prize</b>	<b>US-Dollars</b>	<b>10.000,-</b>
<b>Third Prize</b>	<b>US-Dollars</b>	<b>5.000,-</b>

preferably for studies of biochemical, histological, neurophysiological, neuropathological, psychopharmacological, psychiatric or psychosomatic nature. The studies should be carried out in close cooperation with a psychiatric clinic, a university or an equivalent scientific institution. As far as possible, the papers should give information about recent advances in knowledge that should be helpful in promoting treatment and would open new paths of progress. The papers may be written in German, French or English and should be submitted to the Chairman of the Committee, Prof. Dr. H. Helmchen, Berlin, Germany. Besides hitherto unpublished studies or papers published in the past two years in an international professional journal may also be submitted. Deadline for submission to the Committee is **30th September, 1992**. To help the Committee to come to a speedy decision, it is requested that a maximum of three publications in four copies as well as a summarizing report (approx. 600 words) of the studies submitted for the competition should be included. Prizes will be awarded until the end of July, 1993. If, in the opinion of the Committee, no papers of sufficient merit are submitted, it reserves the right to present no award. Prizes and their amounts will be awarded according to the merits of the study in question. Subject to the Committee's decision, each prize can be divided between two papers.

### The Committee of Judges:

**Chairman:** Prof. Dr. H. Helmchen

Psychiatrische Klinik und Poliklinik der Freien Universität Berlin, Eschenallee 3, W-1000 Berlin 19, Germany

**Honorary Chairman:** Prof. Dr. med. P. Kielholz †, Seengen, Aargau, Switzerland

### Members:

Prof. Dr. J. Angst, Psychiatrische Universitätsklinik, Zürich, Switzerland  
 Prof. Dr. K. Beyreuther, Zentrum für Molekulare Biologie der Universität Heidelberg, Germany  
 Prof. Dr. M. Burger, Friedrich-Miescher-Institut, Basel, Switzerland  
 Prof. Dr. A. M. Freedman, New York, USA  
 Prof. Dr. K. Heinrich, Psychiatrische Universitätsklinik, Düsseldorf, Germany  
 Prof. Dr. A. Herz, Max-Planck-Institut für Psychiatrie, Martinsried, Germany  
 Prof. Dr. H. Hippus, Psychiatrische Klinik und Poliklinik der Universität München, Germany  
 Prof. Dr. F. Holsboer, Max-Planck-Institut für Psychiatrie, München, Germany

**Managing Director:** Prof. Dr. B. Hesse, Am Kaiserhain 19, W-4600 Dortmund 1, Germany

Prof. Dr. H. Möhler, Institut für Pharmakologie der ETH und Universität Zürich, Switzerland  
 Prof. Dr. D. Palm, Zentrum für Pharmakologie der Johann-Wolfgang-Goethe-Universität, Frankfurt/M., Germany  
 Prof. Dr. P. Pichot, Paris, France  
 Prof. Dr. K. Sandhoff, Institut für Organische Chemie und Biochemie der Universität Bonn, Germany  
 Prof. Dr. W. Stoffel, Institut für Biochemie der Medizinischen Fakultät der Universität Köln, Germany

### Sustained Release Drug Delivery

DepoTech develops sustained-release formulations of several injectable drugs. With our first product entering the final phase of clinical trials, DepoTech provides opportunities in lipid-based formulations and clinical development of new drugs. We are seeking enthusiastic, hard-working, self-starting individuals who enjoy challenge and teamwork.

### VP, Drug Development

Direct pre- and early clinical development. 7+ years experience managing FDA, corporate and investor relationships.

### VP, Clinical Trials

MD, experience directing Phase III oncology trials.

### Analytical Chemists

QA/QC, GLP, HPLC, GC, ELISA.

### Scientific Project Leaders

Develop new sustained release formulations. PhD in Biology or Chemistry + 5 years experience in lipids and/or liposomes.

### Director of Manufacturing

Plan, design, implement and manage manufacturing facilities. FDA, cGMP, GLP, QA/QC, sterile processing, regulatory compliance.

### Research Associates

BS in Chemistry, Biology, or Chemical Engineering + 2 years lab experience. HPLC, fluorometry. Writing ability & PC literacy.

Stock, competitive salary and benefits. Please send your resume to:

**DepoTech Corporation**  
 Dept. Sci 7/17, 11025 N. Torrey Pines Rd.  
 Ste. 100, La Jolla CA 92037.  
 Fax: (619) 625-2439. EOE.

### ENDOWED CHAIR IN GENETICS AT THE UNIVERSITY OF ARIZONA

The University Department of Molecular and Cellular Biology at The University of Arizona is continuing a search for a distinguished scientist for the Lindholm Chair in Genetics which was established as a permanent memorial to George and Sally Lindholm. We wish to attract an internationally recognized scholar and educator in the field of vertebrate molecular genetics. We encourage nominations or applications from outstanding candidates at Associate as well as full Professor levels. Nominees are expected to establish an outstanding research program, act as a catalyst in the further development of academic programs in Genetics, and participate in medical and graduate student teaching. The recipient of the Chair will receive substantial start-up funds and annual support for research from the endowment in addition to salary.

We will begin to review applications on September 1, 1992, although applications will be accepted until the position is filled. Applications should include a letter describing current and future research and teaching interests, a curriculum vitae, and names, addresses, and phone numbers of three professional references. Nominations should include a letter supported with an abbreviated curriculum vitae of the nominee. Applications and nominations should be sent to: **Search Committee for the Lindholm Chair, University Department of Molecular and Cellular Biology, Life Sciences South 444. The University of Arizona, Tucson, AZ 85721, USA.** The University of Arizona is an Equal Opportunity Affirmative Action Employer. Women and minorities are encouraged to apply.

## POSITIONS OPEN

**TWO POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS IN MOSQUITO CELLULAR AND MOLECULAR BIOLOGY.** Position one involves the construction of a physical chromosome map around a malaria refractoriness locus in the mosquito, *Aedes aegypti*. Experience in high molecular weight DNA (YACs or PFGE) analysis is preferred. Position two involves cellular/molecular studies of mosquito defense responses against filarial nematodes. Both positions available on or after 1 July 1992. Send curriculum vitae and names of three references to: **Dr. David Severson (position one) or Dr. Bruce Christensen (position two), Department of Animal Health and Biomedical Sciences, 1655 Linden Drive, University of Wisconsin-Madison, Madison, WI 53706.** *University of Wisconsin provides Equal Opportunities for admission and employment.*

### SENIOR POSTDOCTORAL INVESTIGATOR MOUSE GENOME PROJECT

The Biology Division of the Oak Ridge National Laboratory (ORNL) is seeking a senior postdoctoral investigator for the mouse genome project. The candidate must have thorough training in both classical and molecular mouse genetics (including IB panels, mapping in deletion complexes, cDNA library construction) and in human and/or mouse cytogenetics and in situ hybridization, and should have experience with manipulating preimplantation embryos and with embryonic-stem-cell culture and experimentation. Send curriculum vitae and three letters of reference by 17 August 1992 to: **L.B. Russell, Biology Division, Oak Ridge National Laboratory, P.O. Box 2009, Oak Ridge, TN 37831-8077.** ORNL, which is managed by Martin Marietta Energy Systems, Inc. for the USDOE, is an Affirmative Action/Equal Opportunity Employer.



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

The USDA, Agricultural Research Service (ARS) is seeking a **RESEARCH ASSOCIATE POSITION** (Microbiologist) for National Animal Disease Center, Virology-Swine Research Unit, Ames, Iowa. The position is temporary, full-time, not to exceed two years. Responsibilities include the localization and characterization of functional domains on coronavirus glycoproteins. Candidate must have a background in molecular biology with experience in DNA cloning, transfection, and gene expression in mammalian cells. (Ph.D. is required.) Salary is commensurate with experience (\$32,423 to \$38,861 per annum). For information on the research program and/or position, contact: **Dr. Ronald Wesley at (515) 239-8254.** For information on application procedures/forms, contact: **Janie Carr at (301) 344-1258.** Applications in response to this advertisement should be marked 2N058. Applications must be postmarked by August 7, 1992. Mailing address: **USDA, ARS, Personnel Operations Branch, Room 325, 6305 Ivy Lane, Greenbelt, MD 20770.** *An Equal Opportunity Employer.*

**RESEARCH ASSOCIATE** position available September 1, 1992, for studies on regulation of inositol phosphate metabolism in cultured vascular smooth muscle cells (40 hours per week; salary: \$26,900 per year). Experience in the preparation and maintenance of primary cultures of vascular smooth muscle cells, in the use of radionuclides, in the measurement of ion transport, in ion exchange chromatography, and in the use of DOS- and AIX-based computers is essential. Ph.D. in biochemistry, pharmacology or related discipline and a minimum of four years of postdoctoral experience required. Send curriculum vitae and have three letters of reference mailed by September 1, 1992 to: **William F. Goldman, Ph.D., Department of Physiology, University of Maryland Medical School, 655 West Baltimore Street, Baltimore, MD 21201.** *An Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATE** position available immediately for a Ph.D. in Biochemistry/Molecular Biology to investigate the molecular/genetic basis of DNA repair and mutation in mammalian cells using various repair deficient mutants. Experience in gene cloning and DNA sequencing is preferred. Send curriculum vitae and names of three (3) references to: **Thomas D. Stamato, Ph.D., THE LANKENAU MEDICAL RESEARCH CENTER, 100 Lancaster Avenue West of City Line, Wynnewood, PA 19096 or call (215) 645-3475.** A member of the Main Line Health family of hospitals. *Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH OPPORTUNITY

Position available immediately in a multidisciplinary group investigating the development and maintenance of chemically defined brain systems. Applicant may join ongoing research or develop own project within the general focus of the laboratory. Current studies include the use of molecular, pharmacological and neuroanatomical techniques in *in vivo* and *in vitro* models. The objective of the research is to examine the development, aging and plasticity of CNS monoamine and opioid systems. Previous experience in developmental neurochemistry preferable, but not essential. Salary range \$26,000 to \$28,000, plus benefits. Send curriculum vitae and three letters of reference to: **Dr. F. M. Leslie, Department of Pharmacology, University of California, Irvine, CA 92717.** *An Affirmative Action/Equal Opportunity Employer.*

**ENVIRONMENTAL ENGINEER;** 40 hours per week; 9:00 a.m. to 5:00 p.m.; \$38,000 per year. Provide technical guidance to the board members of the state environmental regulatory agency and work with staff attorneys and scientists on proceedings before the agency; evaluate complex technical and scientific studies in the areas of solid/hazardous waste management and water pollution control; prepare technical reports on issues concerning management of solid waste and water pollution control; review economic impact studies; identify scientific and technical developments in the application of pollution control technologies; analyze and interpret environmental monitoring data. Must have an M.S. in Environmental Engineering and at least one year of experience as research assistant or environmental engineer. Must have a B.S. in physical sciences or engineering and have taken a course in Solid Waste Engineering; Hazardous/Toxic Waste Management; Groundwater Engineering; Water Resources Planning and Economy; Principles of Biological Wastewater Treatment; Statistical and Inference and Design of Experiments. Must have at least one year of research experience in solid/sludge management. *Must have proof of legal authority to work permanently in the United States.* Send résumés to: **Illinois Department of Employment Security, 401 South State Street, #3 South, Chicago, IL 60605, Attn: S. Lindsey, Reference #V-IL 5565-L.** Two copies of your résumé required. *An Employer Paid Ad. NO CALLS.*



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

**RESEARCH FOOD TECHNOLOGIST,** GS-1382-11/12, Food Flavor Quality Research Unit, Southern Regional Research Center, Agricultural Research Service, USDA, New Orleans, Louisiana. Incumbent will participate in research on the etiology and control of flavor production and loss in meat and meat products. Recent Ph.D. in Biochemistry/Food Science/Nutritional Biochemistry or Bioanalytical Chemistry and knowledge of protein chemistry is required. Salary is \$32,423 to \$50,516 per annum based on qualifications. Usual Federal government benefits apply. For further information contact: **Dr. Arthur Spanier, 504-286-4470.** For application packet, call **Darlene Fowler, 301-344-3377.** Refer to RA-92-74 when inquiring about vacancy. Announcement is open until the position is filled. *USDA is an Affirmative Action/Equal Employment Opportunity Employer.*

### RESEARCH SCIENTIST

Ph.D. or equivalent degree immunologist research scientist, with expertise in the development of monoclonal antibodies directed to human proteins. Candidate must have an in depth experience in the production and characterization of monoclonal antibodies including their use in immunocytochemical applications. Successful candidate will have experience in the isolation and characterization of membrane proteins and experience in managing a research program, including the training of junior investigators and support personnel and the ability to develop new research proposals. Salary commensurate with experience. Replies should be addressed to: **Michael Cohen, M.D., Department of Pathology, University of Iowa College of Medicine, 5216D RCP, Iowa City, IA 52242.** Telephone: 319-356-3217. *The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and Minorities are encouraged to apply.*

## POSITIONS OPEN



Ecogen Inc., a leader in development and production of novel *Bacillus thuringiensis* (Bt)-based bio-insecticides, is currently seeking the following technical personnel.

**ANALYTICAL PROTEIN CHEMIST.** Position available at Research Scientist or Senior Research Scientist level (Ph.D. in biochemistry or related discipline required). Individual will lead research effort directed at analytical technology development for bacterial insecticidal proteins and interact with quality assurance, basic research, and fermentation groups.

Interested candidates should submit a current résumé including the names, addresses and telephone numbers of three references to: **Ecogen Inc., Human Resources Department-SCI, 2005 Cabot Boulevard West, Langhorne, PA 19047.**

*Ecogen is an Equal Opportunity Employer located in the Philadelphia metropolitan area offering competitive salaries and excellent benefits.*

**DENTAL SCIENTISTS, NEW YORK UNIVERSITY (NYU), TENURE-TRACK.** The Division of Basic Sciences, New York University, College of Dentistry is seeking highly qualified dental scientists for two tenure-track positions. Applicants should have a Dental Degree and Ph.D. with substantial expertise in modern cellular and molecular biological techniques. A dentally relevant research area is essential and a postdoctoral fellowship highly desirable. Applicants with clinical specialty training may receive a secondary appointment in a clinical discipline. Successful applicants are expected to develop a well-funded, vigorous research program and to participate in the graduate and professional educational activities of the division. Applicants should send curriculum vitae and the names of three references to: **Barry R. Rifkin, D.D.S., Ph.D., Head, Division of Basic Sciences, New York University, College of Dentistry, 345 East 24th Street, Box 30, New York, NY 10010.** *NYU encourages applications from women and members of minority groups.*

**EDUCATION OFFICER.** The American Physiological Society (APS) invites applications for the position of Education Officer of the Society. The APS seeks a creative, energetic and resourceful person who will work closely with the officers and committees to strengthen the Society's education efforts. The successful candidate must possess personal and professional qualities of leadership and vision; be an effective manager; have successful teaching and/or administrative experience in education related programs; and a history of successful working relationships with scientists, administrators, teachers, and students. Send a complete résumé, names of three references, and a statement detailing the role of a scientific society in education related activities by September 1, 1992 to: **Dr. Martin Frank, Executive Director, American Physiological Society, 9650 Rockville Pike, Bethesda, MD 20814-3991.** *The APS is an Affirmative Action/Equal Opportunity Employer.*

### GAMETE BIOLOGIST

The Reproductive Biology Laboratory at Methodist Hospital of Indiana, located in Indianapolis, is currently seeking a Gamete Biologist/Embryologist to join our rapidly growing IVF program. The position has laboratory responsibilities for clinical services in reproductive technologies.

Qualified applicant will possess a B.S. degree and one to two years of laboratory experience. Additional training at the Master's level or as a Medical Technologist is desirable. Previous experience in various laboratory aspects of assisted reproductive technologies is preferred. Such experience should include oocyte identification, embryo culture and evaluation, cryopreservation, and sperm processing.

We offer the benefits expected from the leading teaching, research, and tertiary care facility in Indiana.

Methodist Hospital . . . where the difference is experience. Interested individuals, please send your résumé to: **Methodist Hospital of Indiana, Employment Office, Department DP, 1701 North Senate Boulevard, P.O. Box 1367, Indianapolis, IN 46206.** *Equal Opportunity Employer.*



## Postdoctoral Positions In Chemoprevention Research

... are currently available at the American Health Foundation. If you possess strong background in any of the following disciplines and great enthusiasm and motivation, we encourage you to apply:

- ♦ Bio-organic ♦ Biochemistry
- ♦ Toxicology ♦ Pharmacology

Depending on the qualifications, these positions have the potential to become long-term appointments at higher levels. The American Health Foundation provides an excellent opportunity for future independent research, within a modern environment in a pleasant Westchester County setting. We also offer a competitive salary plus benefits. If qualified, please send your c.v. with references, to: Dr. F.L. Chung, Associate Chief, Division of Chemical Carcinogenesis, Dept.-PS, American Health Foundation, One Dana Road, Valhalla, New York 10595. We are an equal opportunity employer m/f/h/v.

American Health Foundation 



## Research Associates

*Break new ground in quality control and protein chemistry.*

Make a significant impact on scientific research while you enrich your professional life at Regeneron Pharmaceuticals, Inc. We're a highly regarded company dedicated to researching therapeutic pharmaceuticals for degenerative and neurological diseases. Our continued success and commitment to high quality standards have created opportunities in the following areas:

### BIOTECHNOLOGY QUALITY CONTROL

#### *Tissue Culture Research Associate*

To perform quantitative analysis on the effects of trophic factors on cultured neurons. Experience in sterile and/or dissection techniques, cell culture and microscopy would be desirable.

#### *Immunochemistry Research Associate*

To perform ELISA and Western blotting techniques for quantification and characterization of neurotrophic factors and other proteins. Working knowledge of these techniques or experience with other immunochemical methods related to production, characterization or purification of antibodies would be helpful.

### PROTEIN CHEMISTRY RESEARCH

Several research positions available involving the characterization of recombinantly-derived proteins using basic techniques of protein analysis (SDS-PAGE, HPLC, spectrophotometry, isoelectric focusing, etc.). Special consideration given to candidates experienced in computing or instrumental methods of protein chemistry such as circular dichroism, capillary electrophoresis, sequence analysis, etc.

Position also available in the discovery and characterization of novel neuroregulatory polypeptides and the study of their mechanisms of action. An extensive background in protein purification methods, including HPLC, is preferred, as well as hands-on knowledge of electrophoretic techniques (2D, IEF and Western blotting) and familiarity with tissue culture and bioassay development.

Regeneron is situated on an expansive wooded campus near Tarrytown, in Westchester County, 25 miles north of New York City. To find out more about our supportive team environment and growth potential, please send detailed resume with salary history and indication of position desired, to: Human Resources Dept., Bin BQC (Quality Control) or Bin PCR (Protein Chemistry), Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, N.Y. 10591-6707. Equal Opportunity Employer

**REGENERON**  
Pharmaceuticals, Inc.

## MANAGER OF DEVELOPMENT

Targeted Genetics Corporation is a gene therapy company developing treatments for inherited and acquired diseases, particularly infectious disease and cancer. The company is implementing its first clinical trials, and is recruiting a Manager of Development to manage this development program.

Management responsibilities include production of cell banks of virus-producing mammalian cells, the generation and validation of retroviral supernates according to regulatory specifications, and interactions with clinical investigators and regulatory agencies. Good communication skills and the ability to meet aggressive deadlines are essential to this key role.

The proper candidate will have a PhD or MD degree and experience in either mammalian cell line development, regulatory affairs, or the initiation and management of clinical trials.

For consideration please send C.V. or resume to: Targeted Genetics Corporation, Attn: S 7/17, 1201 Western Avenue, Seattle, WA 98101.

Fax: (206) 587-0606

**Targeted Genetics Corporation**

Equal Opportunity Employer



## St. Vincent's Hospital, Sydney, Australia

ST. VINCENT'S IS A 500 BED TEACHING HOSPITAL UNDER THE CARE OF THE SISTERS OF CHARITY. MATHEW 8:14-15

### THE VICTOR CHANG CARDIAC RESEARCH CENTRE

The Victor Chang Cardiac Research Centre, for which fund-raising is in progress, is envisaged to become a major Cardiac Research Centre in Australia. It will focus on gaining a basic understanding of heart muscle in health and disease with an emphasis on medical and surgical research into the preservation of optimal heart function and the mechanisms and treatment of heart failure. It will be associated with St. Vincent's Hospital, which is a principal teaching hospital of the University of New South Wales.

### EXECUTIVE DIRECTOR/PROFESSOR

The Board invites applications from persons wishing to be considered for appointment as Executive Director of the Research Centre. The successful applicant will be considered for appointment to the medical or scientific staff of St. Vincent's Hospital.

The appointee may also be offered a conjoint appointment in the St. Vincent's Hospital Clinical School within the Faculty of Medicine at the University of New South Wales. The conjoint appointment may be offered at the level of Professor commensurate with qualifications, experience and publications, for an initial period of five years. The conjoint appointment may only be held during the tenure of the Hospital appointment. No remuneration is attached to the University appointment.

The new Director should be an internationally recognised scientist with a background in an appropriate field such as physiology, engineering, medicine or surgery and will be expected to lead the Research Centre by personal research, developing strategies for future growth and promoting the interests of the Centre in the scientific and public domains.

Enquiries should be directed to Dr. Ron Spencer, Chief Executive Officer, phone (61 2) 361 2083.

Applications in writing, together with the names and addresses of at least three referees, should be forwarded by 14th August, 1992 to: Dr R. B. Spencer, Chief Executive Officer, St. Vincent's Hospital, Darlinghurst NSW 2010, Australia. Fax: (61 2) 332 4142.

# **SCIENCE's 2nd Annual CAREERS IN SCIENCE**

**18 September 1992**

The second annual Careers issue is custom-designed for recruitment. This special cover story is the ideal environment for your message and will include:

## **Career trends in:**

- Multidisciplinary Fields - Biotechnology, Neuroscience, Materials in Science, Pharmaceuticals and more.
- Money, funding and jobs; Career opportunities in industry.

## **Special recruitment advertising section-**

Full-page ads will be accepted for placement within this editorial section located in the main body of the magazine (ROP), and will be included in the Harvey Research Study on reader recall. All other size ads will be placed in the traditional back-of-the-book section.

## **Bonus Distribution:**

The reprint will be distributed at:

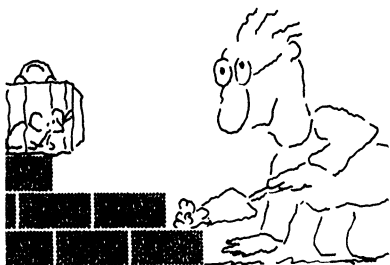
**Neuroscience, 25 to 30 October 1992, Anaheim, CA  
American Society for Cell Biology Meeting,  
15 to 19 November 1992, Denver, CO**

With a recruitment ad in SCIENCE, you are guaranteed a worldwide circulation of 155,000 qualified, paid subscribers, and a pass-along readership of over 470,000 total readers. SCIENCE, in its 112 years of publication, is the most respected journal in the industry, ensuring that your ad will be well-read.

**For more information or to place your ad, please call  
Janis Crowley, Recruitment Advertising Manager, at 212-496-7704**

**Reservation Deadline: Tuesday, 1 September 1992**

## We'll Help You Build A New Lab



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

**SCIENCE Magazine**  
New Lab Service Department  
1333 H Street, N.W., Rm 830  
Washington, DC 20005

**SCIENCE** The Global Weekly of Research

As an emerging biotechnology/pharmaceutical company, **PeptiMed** is committed to developing treatments for gastrointestinal disease. Collaborating with scientists from The Massachusetts General Hospital and several pharmaceutical companies, we're leading the discovery and development of therapeutic and diagnostic products, based on regulatory proteins and hormones within the GI tract.

We're focusing on the role of growth factors in erosive and inflammatory mucosal diseases, the brain-gut axis, motility disorders, and hepatic and pancreatic regeneration. In our multidisciplinary environment, we're involved with a broad range of technologies including biochemistry, pharmacology, cell biology and imaging. We're seeking ambitious scientists with an interest in GI research to join our team.

**PeptiMed**

**Gastrointestinal  
RESEARCH**

### DIRECTORS

- **Brain-Gut Axis Research**
- **Mucosal Disease Research**

Directing research programs, you will be responsible for intellectual and organizational leadership in a multidisciplinary department. You will also be responsible for fostering internal and external collaborations to effect progress in basic research and drug discovery/development programs. Candidates should have a Ph.D., M.D. or D.V.M. with documented scientific and drug discovery/development accomplishment over a period of 10 or more years and strong interest and background in gastrointestinal pharmacology research.

### PRINCIPAL & SENIOR SCIENTISTS

Directing laboratory projects, you will be involved with multidisciplinary research programs. Candidates should have a Ph.D., M.D. and/or D.V.M. degree, 3-10 years post-doctoral experience with documented accomplishments and strong interest and background in either gastrointestinal disease research or molecular/cellular physiology and pharmacology.

### ASSOCIATE SCIENTISTS

Exploiting biochemical and image processing/analysis techniques, you will perform cell biology/pharmacology research. Successful candidate will perform microscopy, tissue preparation, tissue culture, HPLC, and radioisotope work. Some animal work required. Keen observational skills, a strong interest in research, and a willingness to learn new areas essential. An MS/MA or BS/BA, or equivalent, and 3-7 years of research experience preferred.

For prompt consideration, please forward your resume to:

Human Resources  
**PeptiMed, Inc.**  
One Kendall Square, Bldg. 200  
Cambridge, MA 02139  
An equal opportunity employer

### Recruitment Advertisers

# SAVE 25%

Running your recruitment advertisement once may not be enough. Place the same ad again within the next four issues and we will give you 25% off your second insertion.

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

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

Call, write, or fax:

**Science Classified Advertising**  
1333 H Street, N.W.  
Washington, D.C. 20005  
Phone: 202-326-6541/6555  
Fax: 202-682-0816

## Staff Scientist Hematopoiesis

*Genetics Institute is a recognized leader in the discovery and characterization of novel human regulatory proteins and their development into biopharmaceuticals. The following position provides an opportunity for an outstanding individual to achieve in this pioneering organization.*

Our Department of Hematopoiesis is expanding in the area of megakaryocyte cell biology. Current research involves the discovery and characterization of novel cytokines affecting megakaryocyte growth and development *in vitro*. Candidates are sought with a strong background in cell biology and interest in conducting research in this area. Qualifications include a PhD and several years of postdoctoral experience.

**For more information, please send resume and letter of interest to: Human Resources Department, Genetics Institute, Inc., 87 CambridgePark Drive, Cambridge, MA 02140.**

*Genetics Institute is dedicated to building strength through diversity. We are an Affirmative Action Employer.*

**GENETICS INSTITUTE**

HARNESSING THE BODY'S POWER TO HEAL™

## POSITIONS OPEN

**ANAEROBIC MICROBIOLOGIST.** The Naval Dental Research Institute, Great Lakes, Illinois has a position available for a doctoral level microbiologist. The position involves basic and applied research on the microbiota of oral diseases. The successful candidate will possess experience in anaerobic microbiology, immunoassay and monoclonal antibody development. Prior experience with spirochetes is highly desirable. Salary is commensurate with experience (\$32,423 to \$50,516). *United States Citizenship required.* For information on application procedures/forms, telephone (708) 688-2222, Consolidated Civilian Personnel Office, Building 1-H, NTC, Great Lakes, IL 60088-5259, prior to close of business day 31 July 1992.

### DNA RESEARCH SPECIALIST

Immediate funded position to join a busy molecular laboratory involved in molecular analyses and gene mapping for several inherited neurogenetic and growth-deficiency syndromes. Duties include routine laboratory maintenance, supervision of part-time employees, and experiments using molecular techniques. Requirements include a Bachelor's or Master's degree with at least one year of experience in molecular techniques. Please send curriculum vitae and three references to:

Dr. Lisa Baumbach  
Division of Genetics  
Department of Pediatrics  
University of Miami School of Medicine  
1601 N.W. 12th Avenue  
Miami, FL 33136  
Telephone: (305) 547-3997



Agricultural Research Service  
United States Department of Agriculture

**RESEARCH CHEMIST/RESEARCH FOOD TECHNOLOGIST (GS-11/12-Permanent Full Time) BIOCHEMIST/BIOPHYSICIST/PHYSICAL CHEMIST.** The USDA SOFT WHEAT QUALITY Research Unit, Wooster, Ohio seeks highly creative scientist, with U.S. citizenship, to research factors determining soft wheat cultivar milling and end use quality. Specifically, incumbent interrelates the physical, chemical, biochemical, biophysical, rheological, and textural properties of soft wheat and flour components and determines their genetic and environmental bases. Candidates must possess: (a) degree in directly related field; or (b) a combination of education and experience. Ph.D. in related field desirable. Ability to think creatively will be weighed heavily. Salary: \$32,423 to \$50,516 per annum. Inquire 8:00 a.m. to 3:00 p.m. Telephone: 301-344-1858. Identify ad #2N052. Subsequent applications must be postmarked by August 15, 1992. *USDA is an Equal Opportunity Employer.*

### RESEARCH GENETICIST

Weyerhaeuser, a Fortune 100 forest products company with a progressive tree improvement program, is seeking an experienced scientist to plan and implement leading edge research in forest genetics and tree improvement. As part of an aggressive multidisciplinary team located in Western Washington, duties would also include participation in the external genetics community on genetic diversity, adaptation, and sustainable forestry. The successful candidate will also be responsible for providing ongoing quantitative genetics analysis support. Ph.D. in forest genetics, plant or animal breeding or population genetics required, with minimum five years of postgraduate experience/demonstrated results in genetics research and quantitative genetics analysis. Start date for this position will be January 4, 1993. Please send postmarked by September 18: Cover letter, résumé, list of professional references, to: **Technical Staffing-Geneticist, WTC 1G42, Tacoma, WA 98477.** *Affirmative Action/Equal Opportunity Employer.*

**SCIENTIST** for national public-interest group to work on food safety issues. Related Ph.D. and advocacy experience preferred. Salary range: \$35,000 to \$45,000. *Non-smoking office.* Send résumé, salary history, writing samples to: J. Douglas, CSPI, 1875 Connecticut Avenue, N.W., Room 300, Washington, DC 20009.

## POSITIONS OPEN

### NEUROBIOLOGY RESEARCH

Position available immediately at the University of Wisconsin-Madison to study the action of neuropeptides underlying stress-induced behavioral and neuroendocrine responses. This is an opportunity to work in an established NIH-funded laboratory with Drs. Kalin and Takahashi in the Department of Psychiatry. A variety of techniques including: receptor assays, mRNA measurement, autoradiography, in situ hybridization, and sophisticated behavioral analyses are currently being used. Highly motivated individuals with experience in one or more of these techniques are urged to apply. Competitive salary and fringe benefits are available. Send curriculum vitae to: **Dr. Kalin, Department of Psychiatry, University of Wisconsin, 600 Highland Avenue, Madison, WI 53792-2475** by August 31, 1992. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH SCIENTIST DIVISION CANCER RESEARCH

The Division of Cancer Research at Ribi Immuno-Chem Research, Inc. invites applications for a position at the Research Scientist level. Candidates should have expertise in cellular immunology and cancer research to study aspects related to tumor antigen identification and isolation. Applicants must have a Ph.D. plus two years of postdoctoral experience. The successful candidate will be expected to participate in ongoing research projects and to develop an independent program in the area of cancer immunotherapy. Send letter of interest, curriculum vitae, bibliography and three references to: **Human Resources Manager, 553 Old Corvallis Road, Hamilton, MT 59840.** *Equal Opportunity Employer.*

## ANNOUNCEMENTS

### POSTDOCTORAL FELLOWSHIPS LIFE SCIENCES RESEARCH FOUNDATION (LSRF)

The LSRF solicits monies from industry, foundations and individuals to support postdoctoral fellowships in the life sciences. Active solicitation of funds continues, for which we need the assistance of all concerned individuals.

**Eligibility:** Three-year fellowships will be awarded on a competitive basis to graduates with M.D. or Ph.D. degrees in any field of the life sciences. *United States citizens are eligible to apply with no restrictions on the laboratory of their choice. Foreign applicants are eligible for study in United States laboratories.* Only research in non-profit institutions will be supported. Those who are changing their field of research by way of a second postdoctoral, or as an independent research associate, are encouraged to apply.

**Timetable:** Application deadline is October 1, 1992, for award as early as summer 1993. Awards will be announced in March, 1993.

For information and an application write to: **LSRF, c/o Lewis Thomas Laboratories, Washington Road, Princeton University, Princeton, NJ 08544.**

## MEETINGS

### LUNG CELL BIOLOGY AT WOODS HOLE DEVELOPMENT OF LUNG AND MODEL SYSTEMS

Sponsor: Astra Pharmaceuticals  
18 to 21 October 1992

The symposium includes discussions on current research in lung development and on regulators of development in model systems including HOX genes, retinoids, transcription factors, DNA methylation, growth factors, epithelial-mesenchymal interaction and others. Invited speakers include L. Wolpert, M. Capocchi, L. Gudas, A. Wolffe, C. Cepko, J. Boyes and others. Poster presentations are welcome from all participants; poster titles must be submitted by 1 September 1992.

Registration fee is \$150. For details and registration forms contact: **Mary C. Williams, Ph.D., The Pulmonary Center, Boston University Medical Center, 80 East Concord Street, Boston, MA 02118, FAX: 617-536-8093, telephone: 617-638-4860.**

## COURSES AND TRAINING

### HOW TO MAKE MICROCAPSULES— A HANDS-ON COURSE

A laboratory course designed to teach the art and science of microcapsule making. Suitable for biologists, pharmacists, chemists, life scientists and engineers. Enrollment limited to 12. Lectures and laboratory sessions by Dr. Curt Thies, Professor of Chemical Engineering at Washington University in St. Louis. Fall Sessions: October 25 to 28 and December 6 to 9, 1992. For information, call (314) 935-6066.

## COMPUTER MARKETPLACE

### STATISTICAL SOFTWARE

Accurate, easy to learn. For MS-DOS. Includes t-tests, ANOVA, chi-square tests, DOE, survival analysis, sample size and power analysis, curve fitting, graphics, more. Spreadsheet-style interface. Transfer graphics to other programs. Thousands of users. Base system: \$125. Complete: \$395. Ask for Dr. Hintze (PhD statistician) at (801) 546-0445. FAX: (801) 546-3907. NCSS, 329 North 1000 East, Kaysville, UT. 84037.

Circle No. 19 on Readers' Service Card

## MARKETPLACE

### Custom Peptides Shipped in 10 Days

\$30 a residue, no setup charge, 10 uM scale.  
6 to 16-mers

Research Genetics  
1-800-533-4363 FAX 205-536-9016

Circle No. 1 on Readers' Service Card

### PEPTIDES

Custom made in 7 days  
AAA & HPLC analyzed  
Lowest mg unit price

PEPTIDE TECHNOLOGIES  
1-202-234-3384 FAX 3385

Circle No. 41 on Readers' Service Card

Quality DNA  
Services from \$3/base+set-up  
Call Midland  
1-800-247-8766

Circle No. 9 on Readers' Service Card

### \$3.50/Base Custom DNA Synthesis

No Set-up Fee, Shipped in 24 hours.

KEYSTONE LABORATORIES, Inc

1-800-788-4 DNA

1-800-786-4 DNA Fax

Circle No. 29 on Readers' Service Card

Custom DNA  
Purified and Delivered in 48 hours.

\$7.50 per base • Purified  
Guaranteed minimum 100 µg DNA

Research Genetics  
1-800-533-4363

Circle No. 6 on Readers' Service Card



release  
3.1 shipping

# CSS:STATISTICA

**CSS/3™** Complete Statistical System with over 1,000 presentation-quality graphs fully integrated with all procedures and on-screen graph customization ■ The largest selection of statistics in a single system; in-depth, comprehensive implementations of: *Exploratory techniques; multi-way tables with banners; nonparametrics; distribution fitting; multiple regression; general nonlinear estimation; logit/probit analysis; general ANCOVA/MANCOVA; stepwise discriminant analysis; log-linear analysis; factor analysis; cluster analysis; multidimensional scaling; canonical correlation; item analysis/reliability; survival analysis; time series modeling; forecasting; lags analysis; quality control; process analysis; experimental design (with Taguchi);* and much more ■ Manuals with comprehensive introductions to each procedure and examples ■ Integrated Stats Advisor expert system ■ Extensive data management facilities (powerful spreadsheet with formulas; relational merge; data verification; flexible programming language) ■ Optimized (plain English menus/mouse) user interface: even complex analyses require just few self-explanatory selections (CSS can be run without manual; Quick Start booklet explains all basic conventions) ■ Macros, batch/commands also supported ■ All output displayed in Scrollsheets™ (dynamic tables with pop-up windows and instant graphs) ■ Extremely large analysis designs (e.g., correlation matrices up to 32,000x32,000) ■ Unlimited size of files; extended precision; unmatched speed (Assembler, C) ■ Exchanges data (and graphics) with many applications (incl. Excel®, Lotus 3®, dBASE IV®, SPSS®) ■ Highest resolution output on practically all printers (incl. HP, Postscript), plotters, recorders, typesetters ■ IBM compatibles, 640k or more ■ Price: **\$595.**

**Quick CSS™** Subset of CSS/3: all basic statistical modules (incl. data management) and the full, presentation-quality graphics capabilities of CSS/3 ■ Price: **\$295.**

**CSS:GRAPHICS™** A comprehensive graphics/charting system with data management ■ All graphics capabilities of CSS/3 and, in addition, extended on-screen drawing, 19 scalable fonts, special effects, icons, maps, multi-graphics management ■ Hundreds of types of graphs ■ Interactive rotation and interactive cross-sections of 3D graphs ■ Extensive selection of tools for graphical exploration of data: fitting; smoothing; spectral planes; overlaying; layered compressions; marked subsets ■ Unique multivariate (e.g., 4D) graphs ■ Facilities to custom-design new graphs and add them permanently to menu ■ Import/export of graphs and data, 15 formats ■ Optimized (menu/mouse) user interface; even complex graphs require few keystrokes: all graphs on this page can be produced from raw data in less than 20 minutes ■ Macros, batch/commands also supported ■ Unlimited size of files ■ Highest resolution output on all hardware (see CSS/3) ■ IBM compatibles, 640k or more ■ CSS:GRAPHICS is included in CSS:STATISTICA (available separately for **\$495**).

**Megafile Manager™** Comprehensive analytic data base management system ■ Unlimited size of files (up to 32,000 fields or 8 MB per record) ■ Megafile Manager is included in CSS/3 and CSS:STATISTICA (separately: **\$295**).

**CSS:STATISTICA™** A fully integrated system that combines all the capabilities of CSS/3 and CSS:GRAPHICS into a single extremely comprehensive data analysis system ■ Price: **\$795.**

Domestic sh/h \$7 per product; 14-day money back guarantee.



For IBM circle #8  
For MAC circle #48

**StatSoft™**

2325 E. 13th St. • Tulsa, OK 74104 • (918) 583-4149  
Fax: (918) 583-4376

**Overseas Offices:** Statsoft of Europe (Hamburg, FRG), ph: 040/4200347, fax: 040/4911310; StatSoft UK (London, UK), ph: 0462/482822, fax: 0462/482855; StatSoft Pacific (Melbourne, Australia), ph: (03) 663 6580, fax: (03) 663 6117; StatSoft Canada-CCO (Ontario), ph: 416-849-0737, fax: 416-849-0918; Available From: CORPORATE SOFTWARE and other Authorized Representatives Worldwide: Holland: MAB Jusing, 071-230410; France: Version US (1) 40590913; Sweden: AkademiData 018-240035; Hungary: P&D Soft KFT 185-6868; Belgium: TEXMA 10 61 16 28; South Africa: Osiris 12 663-4500; Japan: SOFEL Co. 03-3251 1195.

CSS, CSS/3, CSS:GRAPHICS, Megafile Manager, Quick CSS, STATISTICA, StatSoft, dBase IV, Excel, Lotus, MacDraw, Macintosh, Postscript are trademarks of their respective companies; SPSS is a registered trademark of SPSS, Inc.



**STATISTICA/Mac™** A CSS-compatible, comprehensive data analysis and graphics system designed for the Macintosh ■ Large selection of statistical methods fully integrated with presentation-quality graphics (incl. EDA, multiplots, a wide selection of interactively rotatable 3D graphs; MacDraw-style tools) ■ Unlimited size of files ■ Exchanges data with Excel and other applications ■ Price: **\$595.**

**Quick CSS/Mac™** A subset of STATISTICA/Mac: all basic statistical modules and the full, presentation-quality graphics capabilities of STATISTICA/Mac ■ Price: **\$295.**



## Custom Peptide Antibodies



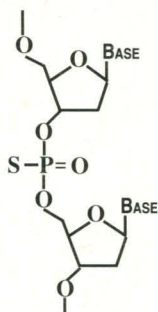
**\$1,195<sup>00</sup>**

includes peptide synthesis  
and antibody titers

Just supply us with the peptide sequence and Research Genetics does the rest! Your peptide will be synthesized using the latest Fmoc solid phase methods utilizing the MAP resin technology which increases the antigenic response. Antibodies are generated in two rabbits over a 10 week period. A total of ~100 ml of antiserum is shipped in 15 weeks.

Circle No. 30 on Readers' Service Card

## Anti-sense Phosphorothioates



### Purified

0.5 mg.....\$400  
1.0 mg.....\$600  
3.0 mg....\$1200  
up to 24 base in length

- offer stability and specificity for antisense studies
- maintain the polyanionic characteristic of natural DNA
- compatible with aqueous media

Circle No. 31 on Readers' Service Card

## Peptides - Fast

8 to 12 mg  
of Custom made,  
High Quality Peptides  
Shipped in 10 days

**\$30.00 / residue**

No set-up charges

Circle No. 32 on Readers' Service Card

## Alk-Phos<sup>TM</sup>

### Labeled Oligonucleotides



- no radioactive labeling •
- visualization using colorimetric or chemiluminescent methods •
- 250 - 1000 hybridizations •

Custom  
AlkPhos<sup>TM</sup> OLIGO **\$750.00**  
(up to 28 bases )

Circle No. 33 on Reader's Service Card

## Published Pairs<sup>TM</sup> PCR<sup>†</sup> primer sets

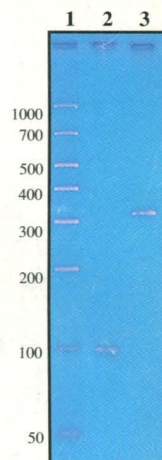
Research Genetics offers published primers for PCR<sup>†</sup> detection of many sequences found in current research literature. Contact us for a catalog with our current offerings and find out how you can qualify for free PCR primers.

**\$1.00 / base**  
for 2 O.D.

Circle No. 34 on Reader's Service Card

## GelMarker<sup>TM</sup>

- Ideal coverage for PCR<sup>†</sup> products
- Estimate yield - each band contains 50ng
- Ethidium bromide stains of each band with equal intensity
- Ready to load
- Low cost
- Also available with biotin or digoxigenin labels



Lanes 1 - GelMarker,  
2 - 80 ng of a 96 bp,  
and 3 - 40 ng of a 323  
bp PCR product.

50 applications **\$77.00**  
100 applications **\$137.00**

Catalog No. 701006

Circle No. 35 on Reader's Service Card

# Research Genetics

USA or Canada 1-800-533-4363

UK 0-800-89-1393

FAX 1-205-536-9016

AlkPhos, GelMarker, and Published Pairs are trademarks of Research Genetics.  
† PCR is covered by US patents issued to Cetus Corp and is licensed by Research Genetics

## Custom DNA

Purified and Delivered in 48 hours

Research Genetics

1-800-533-4363