

PRODUCTS & MATERIALS

Mounting Device for Floating Sections

This simple device mounts floated histological sections onto standard glass slides. It facilitates the mounting of all types of thin (2 to 100 μm) tissue slices. It is especially useful for mounting tissue slices not supported by embedding material, such as those produced with fresh tissue, freezing, or sliding microtomes. It also simplifies the mounting of tissue sections embedded in a water-miscible supporting medium such as polyethylene glycol. **Technical Products International. Circle 137.**

Enzymes from Extreme Environments

CloneZymes are a new line of enzymes cloned and refined directly from the nucleic acid of microbiological organisms found in the world's extreme environments. CloneZymes are available in lyophilized form in tiered libraries designed to help organic chemists, chemical engineers, and enzymologists speed the process of finding the optimum biocatalyst for use in a specific process. The four initial libraries are aminotransferases, esterase/lipases, glycosidases, and phosphatases. Since all CloneZymes are produced in domesticated microorganisms, their supply is highly reproducible and economical. Although they are manufactured in familiar microbes, most of them originated in extreme environments and are unusually robust. For example, CloneZyme libraries include enzymes isolated from hyperthermophiles that are more stable to temperature and organic solvents than other enzymes. **Recombinant BioCatalysis. Circle 138.**

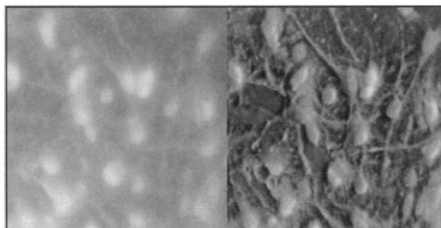
Endotoxin Remover

ActiClean Etox is a high-efficiency solid-phase reagent with a high affinity for endotoxin. ActiClean Etox removes endotoxin from human plasma derivatives including serum albumin, intravenous immunoglobulin G, and high-purity factor VIII and factor IX products. It has an endotoxin binding capacity of 200 to 20,000 EU/ml, depending on the application. Affinity of the immobilized ligand for proteins is very low, delivering a mass yield typically exceeding 95%.

Activity recovery of factor VIII and factor IX following endotoxin removal is greater than 95%. The reagent is readily regenerated with 1 M NaOH. **Sterogene. Circle 139.**

HazeBuster Software

HazeBuster is software for researchers who need to keep costs down, but must have the low noise, highly detailed images obtained from expensive confocal microscope equipment. HazeBuster makes use of proprietary deconvolution algorithms and a point spread function to remove the haze



from microscope images. Even images captured with a scanning confocal can be deconvolved with this software, improving their resolution. The program runs on the Power Macintosh and includes a suite of tools that aid in quantitative analysis and image processing. **VayTek. Circle 140.**

Apoptosis Detection Kit

The Apoptosis Detection kit takes advantage of the binding properties of annexin V and propidium iodide to enable researchers to investigate apoptosis using flow cytometry. The kit is supplied with two fluorochromes that can be used to distinguish between live, necrotic, and apoptotic cells. During apoptosis, the cell membrane's phospholipid asymmetry changes—phosphatidylserine is exposed on the outer membrane but cell membrane integrity is retained. Annexin V can specifically bind phosphatidylserine, whereas propidium iodide is a DNA-binding fluorochrome. When a cell population is stained with both reagents, apoptotic cells stain

positive for annexin V and negative for propidium iodide, necrotic cells stain positive for both, and live cells stain negative for both. **R&D Systems. Circle 141.**

Fluid Line Locking Sleeve

The MPC Plus Series quick disconnect couplings incorporate a locking sleeve for improved fluid line security. Rotating the coupling assembly locking sleeve restricts latch movement. Turning the sleeve back releases the latch so the coupling can be disconnected. The locking sleeve, available on 1/4- and 3/8-inch clear polycarbonate and polysulfone couplings, is white polysulfone for easy visibility. **Colder Products. Circle 142.**

Analytical Ultracentrifuges

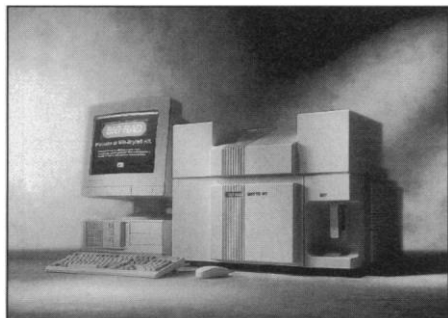
The Optima XL-A and XL-1 Series Ultracentrifuges provide a broad range of capabilities for solution interaction analysis. The instruments offer the ability to investigate the effects of pH, ionic strength, concentration, and temperature on the association process for up to 21 samples per run. For researchers using the surface plasmon resonance technique, the XL-A and XL-1 provide complementary information through rapid and reliable determinations of stoichiometry. The XL-A features a scanning ultraviolet/visible light (UV/VIS) detection system that provides sensitivity for low concentration work and selectivity for optimizing detection based on the analyte's maximum absorbance. The XL-1 is equipped with both scanning UV/VIS and Rayleigh interference detection systems. Rayleigh interference detection, which measures the change in refractive index with changing analyte concentration, provides increased accuracy at high concentrations and the ability to examine a wider range of samples. It can be used on samples that do not absorb in the UV/VIS range, such as polysaccharides, carbohydrates, and a variety of polymers. **Beckman Instruments. Circle 143.**

Flow Cytometer

The Bryte HS flow cytometer is a state-of-the-art arc lamp device for applications in such areas as microbiology, DNA analysis, and immunophenotyping. Its advanced xenon or xenon-mercury arc lamp allows selection from a wide range of excitation wave-

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lengths, from ultraviolet through the visible spectrum. A variety of easily installed single and dual excitation and emission wavelength filter sets allows for the use of any of the dye combinations used in flow



cytometry. The device can detect particles less than 0.2 μm in size and resolve size differences as small as 20 nm. **Bio-Rad Laboratories. Circle 144.**



Protein Data Bank Software

Molecular Images Software is a program for searching, viewing, and rendering Protein Data Bank (PDB) files under Microsoft Windows and Windows 95. A Macintosh version is due out shortly. The program al-

lows users with personal computers to perform most of the molecular modeling work typically done on high-priced Unix workstations. A fast, interactive molecular viewing feature allows coloring, selecting, and fitting of PDB files. The user can select, label, color, model, mutate, and analyze individual residues and structures. Viewing options include depth cue, perspective, backbone, all atoms, wire frame, ball-and-stick, and more. **Molecular Images. Circle 145.**



Literature

Invitrogen Product Catalog 1996 contains up-to-date information on more than 275 products for gene expression and analysis. More than 60 new products have been added since the last printing. Included are cloning and expression vectors, nucleic acid purification kits, gene transfer products, expression systems, polymerase chain reaction products, and custom services. **Invitrogen. Circle 146.**

Product Specifications for Vacuum Dessicator Model 55300-00 describes this contamination- and corrosion-free space for cooling, drying, and storage of moisture-sensitive material, including thin-layer chromatography plates, halide salt cells for infrared spec-

trophotometers, and chemical standards. **Labconco. Circle 147.**

HPLC Tips and Tricks: Making Connections and Material Compatibility is a 16-page guide to finding the right fittings and tubing. It contains compatibility information, particularly on chemical resistivity of metals and polymers. **Phenomenex. Circle 148.**

The Guide to Selecting an ICP is a reference tool for those considering the purchase of an inductively coupled plasma (ICP) spectrometer. It includes a glossary of ICP terminology. **Leeman Labs. Circle 149.**

Pyr 1 Differential Scanning Calorimeter describes the first in a new line of advanced thermal analysis instruments that operates under the powerful, 32-bit Microsoft Windows NT and Windows 95 operating systems. Advanced features include the use of platinum resistance thermometers instead of thermocouples for linear temperature measurement. A unique combination of trapped-air, high-tech epoxies, and aluminized coatings provide superior baseline reproducibility and day-to-day precision. *Pyr Software for Windows* is a brochure on the software that controls the system. **Perkin-Elmer. Circle 150.**



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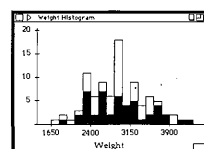
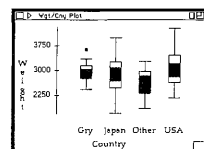
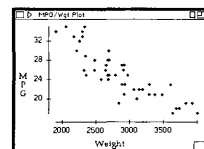
—ROGER PINKHAM
NOTICES OF THE AMERICAN MATHEMATICAL SOCIETY, 2/94

STATISTICS Summary Statistics for individual variables. Frequency Tables and Contingency Tables. Standard Tests and Confidence Intervals including nonparametric tests. Correlation: Pearson Correlation, Spearman Rank Correlation, Kendall Tau, Covariance. Multiple Regression: Weighted Regression, Polynomial Regression, full suite of diagnostic plots and statistics, all linked to update automatically if the data are changed. Nonlinear Regression, Logistic Regression. ANOVA: N-way balanced or unbalanced ANOVA. General Linear Model: N-way, ANOVA, ANCOVA, MANOVA, MANCOVA, and Repeated Measures; fixed effect, random effect, and mixed models; unbalanced designs, nested designs, designs with missing cells, and weighted analyses. Diagnostic statistics and plots: Post-Hocs, Cell Means and Coefficients—modify the data, factor type, or model, and recompute the analysis in place, unique OverView Table for multivariate models. Cluster Analysis. Principal Component Analysis: saves principal axes as equation so "nearby" versions with simple coefficients are easy to find. Transformations: more than 75 functions. Select simple transformations from menus or type in arbitrary complex functions, including IF/THEN/ELSE. Transformed variables recompute automatically if the data are changed, so they are always up-to-date. Pre-fabricated, user-controlled, dynamic graphics.



GRAPHICS Histogram, Normal Probability Plot, Bar Chart, Pie Chart, Boxplot, Dotplot, Scatterplot, Lineplot, Scatterplot Matrix, Rotating Plot, Multiple Lineplot, 3D Rotating Surface Plot, Cluster Dendrogram. Non-linear Smoothers: Lowess, Trellis, Running Median. Regression Lines drawn on scatterplots for the entire dataset or separate for different categories. Plot Overlays. Plot Tools and Features: Palette of 12 plot tools for all plots, palette of 64 colors, palette of 8 plot symbols. All Plots Link: points selected in one plot instantly highlight in all others, click on point to identify it, select subsets of points, and restrict analyses to those points.

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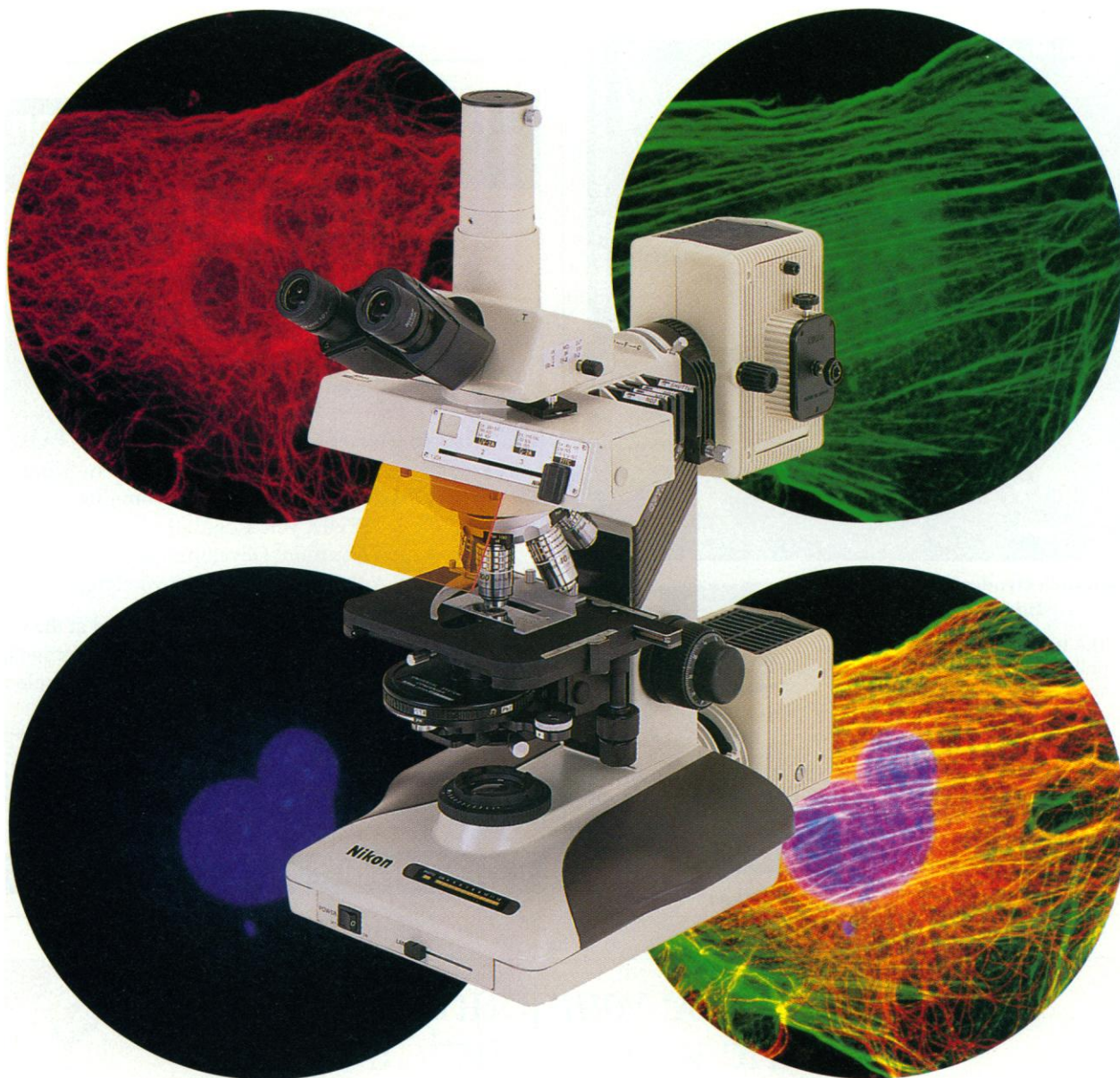
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Meeting Announcement

Tyrosine Phosphorylation and Cell Signaling

To be held at The Salk Institute
in San Diego, California, August 21-25, 1996

Organizers: Tony Hunter and Bart Sefton
Keynote address: Tony Pawson

Topics to be covered include:
Growth Factor Receptors
Protein Tyrosine Phosphatases
Cytokine Receptors, JAK Kinases, and STATs
Cytoplasmic and Nuclear Protein Tyrosine Kinases
SH2, SH3, PTB, and PH Domains
Cell Cycle Regulation
Neuronal Development
Cell Adhesion and the Cytoskeleton

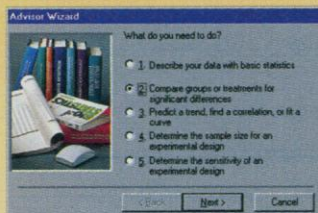
This meeting is the second in a series started at the CSH Laboratory last year and will have the same format of short talks and poster sessions. Speakers will be selected from those who submit abstracts.

Information: Kathleen Murray
Phone (619) 453-4100, ext. 1227, Fax (619) 453-3015
kathleen_murray@QM.salk.edu
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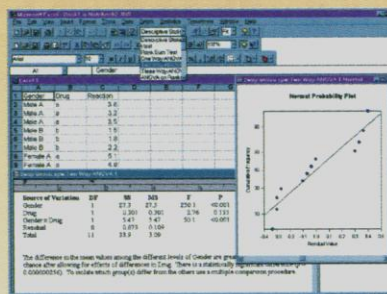
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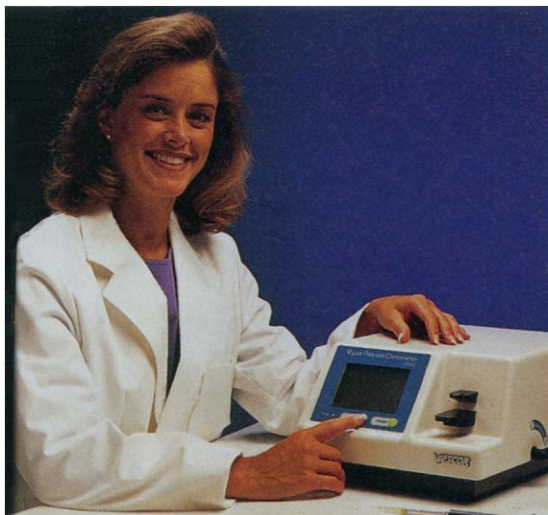
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Wang, X. et al. Matrix metalloproteinase inhibitor BB-94 inhibits human colon tumor growth and spread in a patient like orthotopic model in nude mice. *Cancer Res.* 54, 4726-28, 1994

Hoffman, R., Orthotopic is orthodox: why orthotopic transplant metastatic models are different from all other models? *J. Cellular Biochem.* 56, 1-4, 1994



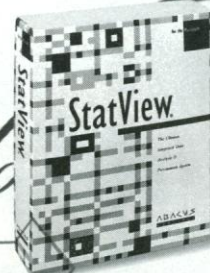
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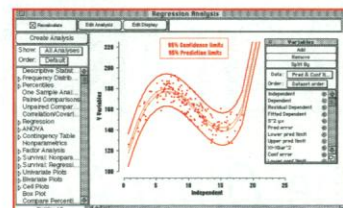
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POSITIONS OPEN

FACULTY POSITION MOLECULAR MICROBIOLOGIST

The Department of Veterinary Pathobiology is seeking applications for a **TENURE-TRACK FACULTY** position at the Assistant or Associate Professor level with emphasis on molecular virology or microbiology in the study of pathogenesis and mechanisms of infectious disease. A Ph.D. or equivalent and postdoctoral experience in the study of microbial pathogenesis, especially virology, is highly desirable. The primary responsibility is to develop and maintain an independent research program and participate in graduate training. Please submit curriculum vitae, a summary of research interest, names of four references, and a letter of application to: **Dr. Cynthia Besch-Williford, Department of Veterinary Pathobiology, W213 Veterinary Medicine, 1600 East Rollins, University of Missouri-Columbia, Columbia, MO 65211.** Applications will be accepted until April 15, 1996, or until position is filled. *The University of Missouri is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from qualified women and minorities.*

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS Medical Sciences Campus University of Puerto Rico

Applications are invited for tenure-track faculty positions (three), rank up to **ASSOCIATE PROFESSOR** depending on experience. Area of research interest is open. Teaching obligations include participating in team-taught physiology courses for medical and dental students, and graduate courses in one's area of research. We expect a successful candidate to have an ongoing research program and the commitment to seek external funding. In addition to the tenure-track positions, vacancies for visiting professors (contracts for one or two years) are anticipated. Applicants should send curriculum vitae, summary of current research, and names of three references to: **Hugo Sillau, Department of Physiology and Biophysics, School of Medicine, University of Puerto Rico, G.P.O. 5067, San Juan, PR 00936-5067. Telephone: 809-758-2525, ext. 1609; FAX: 809-758-5206.** Review of applications will begin immediately and continue until the positions are filled. *The University of Puerto Rico is an Equal Opportunity/Affirmative Action Employer.*

WATER QUALITY POSITION. The Nicholas School of the Environment at Duke University seeks applicants for a non-tenure-track two-year Visiting Assistant Professor in water quality modeling and risk assessment. Applicants should have training and experience in fields related to the understanding, prediction, and measurement of mechanisms and physical/chemical variables controlling water quality. Experience in statistical water quality models and risk assessment for solving water quality problems is desirable. The successful applicant is expected to teach a water quality modeling and a water quality management course, advise graduate-level professionals and Ph.D. candidates, and participate in research and academic activities underway in the School. Position available immediately. Applications received by April 25, 1996 will be guaranteed consideration. Applicants should send a résumé and the names of three references to: **Chair, Water Quality Search Committee, Nicholas School of the Environment, Duke University, Durham, NC 27708-0328. Equal Opportunity Employer.**

PHARMACOLOGIST ALBANY COLLEGE OF PHARMACY

Applications are invited for a 12-month **TENURE-TRACK FACULTY** appointment in Pharmacology. Rank and salary will be commensurate with experience. Suitably qualified individuals may also be considered for Chair of the Department of Biological Sciences.

The successful candidate should have a Ph.D. in pharmacology or its equivalent, and at least five years of experience in teaching pharmacology and in basic or clinical research. Major responsibilities include the teaching and/or precepting of professional pharmacy students and establishing an active research program. The position offers excellent opportunities for collaborative research with faculty of the College and with other institutions in the Albany area.

Applicants should send a letter of interest, a curriculum vitae, and the names and addresses of three references by May 1, 1996 to: **Associate Dean for Academic Affairs, Albany College of Pharmacy, Union University, 106 New Scotland Avenue, Albany, NY 12208. The Albany College of Pharmacy is an Equal Opportunity Employer.**

POSITIONS OPEN

The Department of Cell Biology at the University of New Mexico School of Medicine invites applications for a tenure-track appointment in molecular virology at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level. Applicants are required to hold a Ph.D. in a related field of study and should have at least two or more years of postdoctoral training. Candidates will be expected to demonstrate evidence of originality and the ability to maintain a vigorous, externally funded research program, as well as a record of research productivity. Candidates should also possess effective teaching skills for participation in Graduate training programs. The Department consists of nine faculty applying the techniques of molecular biology and genetics to the study of cells and viruses. We seek an individual with compatible interests who will contribute to the growth of a stimulating, intellectual environment. Applicants should send a curriculum vitae, description of research plans, and names of three references to: **Charlene Golden, Search Coordinator, Faculty Search Committee, Department of Cell Biology, Cancer Research and Treatment Center, University of New Mexico School of Medicine, Albuquerque, NM 87131.** Deadline for receipt of application is June 1, 1996. *The University of New Mexico is an Affirmative Action/Equal Opportunity Employer.*

HARVARD UNIVERSITY Appointment in Earth Science

The Department of Earth and Planetary Sciences, Harvard University, plans to make two appointments in areas dealing broadly with paleoclimate and surficial or near-surface processes.

The appointments will ordinarily be made at the junior level, although in exceptional circumstances a senior appointment may be considered.

In addition to carrying out an active research program, the successful candidate will be expected to teach at both the undergraduate and graduate level. The appointments are expected to start in the spring or fall of 1997.

Applicants should send curriculum vitae, descriptions of research and teaching interests, and names of three references to: **Geology Search Committee, Department of Earth and Planetary Sciences, Harvard University, 20 Oxford Street, Cambridge, MA 02138.** Applications are due by 1 May 1996. *Harvard University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

NEUROSCIENCE BAYLOR COLLEGE OF MEDICINE

The Division of Neuroscience at Baylor College of Medicine is recruiting **FACULTY** with research interests in neural systems. Successful applicants will join faculty with research programs taking molecular, biochemical, biophysical, or theoretical approaches to related problems in neuroscience. Although new faculty will become part of an active graduate and postgraduate training program and will teach at the graduate level, they will devote the vast majority of their efforts to the execution of a vigorous, independent research program. Applicants should send a curriculum vitae, a statement of research interests, and the names of four references to: **John Maunsell, Division of Neuroscience, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Baylor College of Medicine is an Equal Opportunity/Affirmative Action Employer.**

The Department of Ophthalmology, Wayne State University School of Medicine, invites applications for a **TENURE-TRACK RESEARCH FACULTY** position. A Ph.D. or M.D. degree and postdoctoral experience are required. The successful candidate will be expected to have expertise in molecular and cell biology approaches and be able to establish an independent and extramurally funded eye research program. Applications will be accepted until the position is filled. Please submit a curriculum vitae and the names of three references to: **Dr. Hitoshi Shichi, Chairperson, Search Committee, Department of Ophthalmology, Wayne State University School of Medicine, 4717 St. Antoine, Detroit, MI 48201.**

Affirmative Action/Equal Opportunity Employer.

MICROBIOLOGIST/GENETICIST

Nine-month **LECTURESHIP** beginning September 1, 1996 to teach microbiology to biology and nursing majors, genetics to biology majors, and general science labs to potential elementary school teachers. Deadline 1 May 1996; additional nine months may be funded. For further details contact: **Biology Department, California State University, Bakersfield, CA 93311. Email: bio@academic.csusbak.edu.**

POSITIONS OPEN

The Cleveland Clinic Foundation invites applications for a **FACULTY** level position in Structural Biology in the Research Institute and in the Cleveland Structural Biology Center. The Research Institute has a faculty of 90 with programs in many areas of basic research. The Center is a joint endeavor of Cleveland institutions to expand and develop structural biology. Preference will be given to investigators with research programs in crystallography or NMR spectroscopy. Applicants should submit a complete curriculum vitae that includes a summary of research experience, future directions, and the names of three references. Applications should be sent to: **Dr. Edward F. Plow, Search Committee Chair, Cleveland Clinic Foundation (EF2), 9500 Euclid Avenue, Cleveland, OH.** The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.

Eastern Mennonite University invites applications for two one-year **SABBATICAL REPLACEMENT** teaching positions beginning fall 1996: 1) Chemistry: organic and life science chemistry; 2) Biology: mammalian physiology, comparative or gross anatomy, and developmental. Applicants wishing to teach science at a small Christian liberal arts university and who are committed to an Anabaptist/Mennonite faith understanding are encouraged to send by April 15, 1996, a letter of application and curriculum vitae to: **Dr. Lee F. Snyder, Academic Dean, Eastern Mennonite University, Harrisonburg, VA 22801.**

ASSOCIATE DIRECTOR FOR BASIC SCIENCE INDIANA UNIVERSITY CANCER CENTER Indiana University School of Medicine

Indiana University (IU) School of Medicine is seeking applicants for the position of **ASSOCIATE DIRECTOR** of Basic Science Research of the IU Cancer Center. The successful applicant will provide scientific leadership for Cancer Center basic science research programs. Will also develop research collaborations among laboratory and clinical investigators. Must have NCI funding and a successful personal research program of experimental therapeutics. Should have collaborations with clinical investigators. Experience in a leadership position in a cancer center is a requirement. Must meet qualifications for appointment to a tenured or tenure-track faculty position. Qualified candidates should send a curriculum vitae to: **Dr. Stephen D. Williams, The Indiana University Cancer Center, Room 1640, 550 North University Boulevard, Indianapolis, IN 46202.** Affirmative Action/Equal Opportunity Employer; Minorities/Females.

The Department of Physiology, College of Medicine, University of Saskatchewan, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Candidates must have a Ph.D. in physiology or a closely related discipline, at least two years of postdoctoral experience, and demonstrated excellence in research in regulatory and integrative physiology. The successful candidate will be expected to develop a strong, externally funded research program; contribute to the teaching of physiology to undergraduate students in physiology, medicine, and other health sciences; and contribute to the supervision of graduate students. This position has been cleared for advertising at the two-tier level. Applications are invited from qualified individuals regardless of their immigration status in Canada. *Applications must indicate citizenship.* Please send curriculum vitae and names of three references by August 1, 1996 to: **Dr. Mark D. Evered, Head, Department of Physiology, College of Medicine, University of Saskatchewan, 107 Wiggins Road, Saskatoon, Saskatchewan S7N 5E5.** This university is committed to the principles of employment equity. Women, people of aboriginal descent, members of visible minorities, and people with disabilities are invited to identify themselves as members of these designated groups on their application.

POSTDOCTORAL POSITION Washington University School of Medicine

Available to study the molecular and genetic mechanisms of metal and xenobiotic metabolism in human neurodegenerative diseases (*PNAS*, 92:2539, 1995 and *Hum. Mol. Gen.*, 5:81, 1996). Experience in cell and molecular biology required. Send curriculum vitae and names of references to: **Dr. Jonathan D. Gitlin, Department of Pediatrics, Washington University School of Medicine, St. Louis Children's Hospital, 1 Children's Place, St. Louis, MO 63110.** Email: **GITLIN@KIDS.SA1.WUSTL.EDU.** Washington University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MEDICAL WRITER

Leading New York medical communications agency has an immediate opening for a **WRITER** with at least two years' related experience. A Ph.D. in the biological sciences is essential, as is the demonstrated ability to write clear, concise copy. The candidate will be expected to work on his or her own initiative, and interface with physicians, clients, and project directors. Some travel may be required. Please send résumé to:

Human Resources Department
Sixth Floor
16 West 22nd Street
New York, NY 10010

PLANT ECOLOGIST UNIVERSITY OF TEXAS AT EL PASO DEPARTMENT OF BIOLOGICAL SCIENCES

University of Texas at El Paso (UTEP) Department of Biological Sciences and the Environmental Science and Engineering Program seek a tenure-track **ASSISTANT PROFESSOR** specializing in plant community ecology. Applicants with strong quantitative skills and a focus on desert communities, including soil-plant interactions, are especially encouraged to apply. Candidates should have a strong commitment to teaching and research at both the undergraduate and graduate level. Send résumé, statement of research interests, teaching philosophy, and a list of three references (name, address, telephone) to: **Dr. William MacKay, UTEP, Department of Biological Sciences, El Paso, TX 79968-0519.** Review of applications begins April 1, 1996. *The University does not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in employment or the provision of services.*

RESEARCH FACULTY POSITION UNIVERSITY OF UTAH HEALTH SCIENCES CENTER Department of Medical Informatics Genetic Epidemiology Group

A **FACULTY POSITION** is available for a Ph.D. with a background in genetic research. Candidate must be interested in genetic analysis of common diseases. Our current studies involve putative genes for breast cancer, colon cancer, prostate cancer, and melanoma. Candidate will work with team to model and map these loci, refine linkages and study gene/environmental interactors for linked loci. Send curriculum vitae and three letters of reference to: **Genetic Epidemiology, Department of Medical Informatics, 391 Chipeta Way, Suite D2, Salt Lake City, UT 84108.** The University of Utah is an Equal Employment Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

STANFORD UNIVERSITY SOIL/ENVIRONMENTAL GEOSCIENTIST

The Department of Geological and Environmental Sciences at Stanford University invites applications for a tenure-track faculty position in soil/environmental geoscience at the **ASSISTANT PROFESSOR** level. This new position is intended to complement our growing research and teaching programs, at both the graduate and undergraduate levels, in environmental geoscience. Research specialties may include, but are not limited to, geochemical and biogeochemical studies of soils, both modern and ancient, aqueous/groundwater geochemistry, mineral/soil-water interactions at molecular to macroscopic levels, and geochemical cycling and modeling. We are particularly interested in applicants who apply the principles of soil science and geochemistry in a quantitative fashion to important environmental geoscience problems and who have a strong background in modern analytical chemistry/geochemistry studies of mineral/soil-water systems.

The application deadline is June 1, 1996. Applicants must have a Ph.D. degree at the time of appointment. Please send a letter of interest, a statement of teaching and research objectives and accomplishments, a curriculum vitae, a publication list, and the names and addresses of three potential recommenders to:

Professor Gordon E. Brown, Jr.
Department of Geological and
Environmental Sciences
Stanford University
Stanford, CA 94305-2115

Stanford University has a strong institutional commitment to the principle of diversity. In that spirit, we particularly encourage applications from women, members of ethnic minorities, and individuals with disabilities.

POSITIONS OPEN

FELLOW IN THEORETICAL NEUROBIOLOGY

The Neurosciences Institute is an independent, not-for-profit organization at the forefront of research on the brain. Located in San Diego, the Institute is also the home of the Neurosciences Research Program and serves as an international meeting place for neuroscientists; Fellows have opportunities to interact with visitors from many institutions worldwide.

Applications are invited for positions as **JUNIOR FELLOW** in Theoretical Neurobiology. Since 1987, the Institute has had a research program dedicated to developing biologically based, experimentally testable theoretical models of neural systems. Current projects include large-scale simulations of neuronal networks, the design of behaving automata, and detailed formulations of biologically based models of perceptual systems. Junior Fellows will have opportunities for collaborations with Senior Fellows in Theoretical Neurobiology and colleagues at the Institute in developing neural models and theoretical approaches to understanding brain function. Fellows in Theoretical Neurobiology will also have daily opportunities to interact with Fellows in Experimental Neurobiology.

Applicants should be at the postdoctoral level with strong backgrounds in experimental or theoretical neuroscience or related fields. Experience in computer modeling is especially welcome. Positions are now available.

Fellows will receive stipends appropriate to their qualifications and experience. Candidates should send a short statement of research interests, a curriculum vitae, and the names of three references to: **Dr. Gerald M. Edelman, Director, The Neurosciences Institute, 10640 John Jay Hopkins Drive, San Diego, CA 92121.**

POSTDOCTORAL POSITION to study molecular mechanisms of intestinal ischemia/reperfusion injury in transgenic mice overexpressing superoxide dismutase. Ph.D. in biochemistry or related area. Experience in molecular biology essential. Send curriculum vitae and three references to: **Dr. Devendra Deshmukh, Department of Surgery, University of Medicine and Dentistry of New Jersey, Medical Education Building, New Brunswick, NJ 08903-0019.** University of Medicine and Dentistry of New Jersey is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Disabled/Veterans, and a member of the University Health System of New Jersey.

POSTDOCTORAL FELLOW

Position available immediately to conduct research on the active sites and regulatory sites of enzymes. Approaches used include affinity labeling, site-directed mutagenesis, physicochemical studies of modified enzymes and peptide isolation and characterization. Ph.D. in biochemistry required. Send curriculum vitae and three references to: **Dr. Roberta F. Colman, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study anaerobic bioremediation of aromatic hydrocarbons in aquifers and aquatic sediments. Experience in the application of molecular techniques to the study of microbial populations is required. Please send curriculum vitae and names of references to: **Dr. Derek Lovley, Department of Microbiology, University of Massachusetts, Amherst, MA 01003.** FAX: 413-545-1578; Email: **dlovley@microbio.umass.edu.** University of Massachusetts is an Equal Opportunity/Affirmative Action Employer.

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POST-DOCTORAL FELLOW SURGERY BRANCH, NCI

The Surgery Branch, National Cancer Institute, National Institutes of Health has postdoctoral positions available immediately to study tumor proteins and peptides recognized by CD4+ T cells. Applicants for one position must have a strong background in protein purification and molecular biology and for the second position in cellular immunology. Less than five years postdoctoral experience required.

Selections for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, gender, national origin, politics, marital status, physical or mental disability, age, sexual orientation, or membership or non-membership in an employee organization. The NIH is an Equal Opportunity/Affirmative Action Employer.

Send cover letter, CV, and statement of research interests to:

DR. SUZANNE L. TOPALIAN
SURGERY BRANCH
NATIONAL CANCER INSTITUTE, NIH
10/2B47, BETHESDA, MD 20892-1502
PHONE: (301) 496-4269
FAX: (301) 402-0922

AlphaGene

AlphaGene is a rapidly growing biotechnology company founded by scientists from Harvard Medical School. The Company is developing high-quality, innovative gene libraries, ultra high-speed sequencing and high-throughput screening systems. These improved genomic tools will enable the development of novel approaches in the biologic and genetic analysis of human disease.

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Candidates must possess a Ph.D. degree in molecular biology with extensive (3-5 years) experience in cloning, DNA sequencing, and expression of heterologous genes in prokaryotic and eukaryotic cells. Experience in the synthesis of gene libraries, PCR, site-directed mutagenesis, and genetics is highly desirable. Scientific creativity, commitment to organizational goals, excellent written and oral communication skills, and the ability to work as a member of a team are a must.

AlphaGene offers a competitive salary and benefits package commensurate with the individual's skills and experience. This opportunity provides an environment for both personal and professional growth. We are located in the greater Boston area, amidst strong academic institutions and a growing community of biotechnology companies. Qualified candidates are requested to submit, in confidence, a cover letter, their curriculum vitae, and two references to: **AlphaGene, Building 96, 13th St., Charlestown, MA 02129, Attn: Human Resources Department.** AlphaGene is an Equal Opportunity Employer M/F/D/V.

ASSOCIATE RESEARCH PROFESSOR OF MEDICINE

(non-tenure track)

Gene Therapy Research Laboratories Department of Medicine

Exceptional opportunity for a self-motivated and assertive individual in the fast-paced environment of a world-renowned research program in gene therapy. Under supervision of the Program Director, individual will be responsible for overseeing development and production of viral and non-viral vectors for gene therapy for a variety of human diseases, including cystic fibrosis, cancer, and cardiovascular disease.

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We require a Ph.D. in a relevant field, with substantial experience in the biotechnology and/or pharmaceuticals industry that is applicable to the above duties, superb organizational and management skills, as well as documented excellence in research and teaching activities.

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Molecular/Cellular Biologist

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To apply for this Palo Alto, California opening please send your resume to:
Hewlett-Packard Company, Attn: Ad #3675/17275, 1266 Kifer Road, MS100D-EY, Sunnyvale, CA 94086 or e-mail: elaine_yamani@hp2200.desk.hp.com

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Applicants must have a degree with a major study in an academic field related to the health sciences or allied sciences appropriate to the work of the position. Professional experience researching and analyzing materials pertinent to special populations and making presentations to scientific and non-scientific audiences both orally and in writing is desired. Salary range: \$62,473 to \$81,217 per annum.

Application and Deadline: All applicants must be U.S. citizens and must submit an Application for Federal Employment (OF-612), resume, and/or curriculum vitae **no later than April 15, 1996**. For qualification and application information, contact:

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For information regarding current vacancies and application materials, contact:

**NIOSH, Human Resources Management Office
1095 Willowdale Road, P-153
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The candidate must have clinical experience, a strong background in medical and biological sciences, and a mastery of statistical methods needed to design and analyze epidemiological studies and clinical trials and to develop new analytic approaches when needed. The candidate should have an M.D. degree and a Ph.D. in statistics, or its equivalent.

Members of the Biostatistics Branch develop new statistical methods for designing and analyzing epidemiologic studies, provide consultation and collaboration on a wide range of cancer studies, and plan and conduct independent and cooperative research in cancer etiology and genetics using statistical and biometric approaches.

Interested applicants should send a Curriculum Vitae and list of publications, copies of the three most significant publications, three letters of reference, of which only two can come from the candidate's institution, a summary of research accomplishments, and a statement of research interests and goals.

For further information contact:

JOSEPH F. FRAUMENI, JR., M.D.
DIRECTOR, DIVISION OF CANCER EPIDEMIOLOGY AND GENETICS
NATIONAL CANCER INSTITUTE
EXECUTIVE PLAZA NORTH, ROOM 543
6130 EXECUTIVE BLVD., MSC 7399
BETHESDA, MARYLAND 20892-7399
TEL: (301) 496-1611; FAX: (301) 402-3256
EMAIL: FraumeniJ@EPNDCE.NCI.NIH.GOV



MAYO CLINIC
DIVISION OF
MEDICAL ONCOLOGY
AND MAYO CANCER CENTER

Clinical Research Positions

The Division of Medical Oncology and the NCI-designated Mayo Cancer Center in Rochester, Minnesota, invites applications for two clinical research positions. Clinical investigators with established cancer research programs are encouraged to apply. The Mayo Clinic provides an outstanding environment for investigators interested in conducting translational research with the goal of improving prevention, diagnosis, and treatment of cancer. Interested applicants should submit a statement of research interests, curriculum vitae, bibliography, and list of references to:

James N. Ingle, M.D.
Associate Director for Clinical Research
Mayo Cancer Center
Mayo Clinic
200 First Street, SW
Rochester, MN 55905

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

S C I E N T I S T S

Challenging infectious and cardiovascular diseases, allergies, cancer and central nervous system disorders...

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From molecules to medicines. At Schering-Plough, scientists are discovering and developing the novel therapeutics that challenge mankind's most debilitating diseases. To continue this important work, we have several positions for talented scientists to play a critical role on a multidisciplinary team focusing on molecular targets for CNS disorders.

SCIENTISTS

CNS Drug Discovery

Successful candidates will need a BS degree and 4-10 years of laboratory experience or an MS degree and 2-8 years of laboratory experience. Background must include molecular biology, biochemistry or molecular pharmacology plus strong technical and interpersonal skills in a research setting. Experience with receptors, transporters, G proteins or

other signal transduction systems is highly desirable. Technical skills, such as cDNA library construction and screening, mammalian tissue culture, expression and purification of recombinant proteins, and assay design are preferred.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume with salary requirements to: Human Resources-BP, Dept. DD9535, Schering-Plough Research Institute, K-15/MS #1255, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. *We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.*



Schering-Plough
Research Institute

U s i n g S c i e n c e F o r H u m a n A d v a n t a g e

POSITIONS OPEN

Three **POSTDOCTORAL POSITIONS** available immediately in a new Foundation Fighting Blindness Research Center. One involves studies on signal transduction mechanisms involved in mutation induced cell death and rescue of photoreceptors. Another involves studies of the mechanism of upregulation of growth factors and proteoglycan biosynthesis accompanying photoreceptor stress and degeneration. A third involves studies of the regulation of extracellular matrix turnover and the involvement of mutations in the TIMP family of proteinase inhibitors in retinal degeneration. Previous experience with cell biology, molecular biology, or protein-protein interactions are required. Candidates must be able to perform independent research and have excellent verbal and writing skills. Interested individuals should send curriculum vitae, a statement of past research activities, and names of three references to: **Joe G. Hollyfield, Ph.D., Director of Ophthalmology Research, Research Institute FFB, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5245. FAX: 216-445-3670; Email: hollyjf@cesmtp.ccf.org.** *The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION Pathogenesis of Lyme Disease

A **POSTDOCTORAL POSITION** is available to study interaction of the Lyme disease spirochete with mammalian cells. Studies include the analysis of integrin- and proteoglycan-mediated bacterial attachment to host cells. Requirements: a Ph.D. and a background in molecular biology, microbiology, and/or biochemistry. Send curriculum vitae, summary of research interests, and names of three references to: **Dr. J. M. Leong, Department of Molecular Genetics and Microbiology, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655.**

POSTDOCTORAL POSITION DNA REPAIR/TOPOISOMERASES

Available immediately to study a novel eukaryotic activity that liberates DNA from covalent association with Type I topoisomerases. Experience in molecular biology, enzyme biochemistry, and/or yeast genetics strongly preferred. Applicants must have less than five years of postdoctoral training. U.S. citizenship not required. Send curriculum vitae and the names of three references to: **Dr. Howard A. Nash, Laboratory of Molecular Biology, Building 36, Room 1B08, NIMH, National Institutes of Health, Bethesda, MD 20892-4034. FAX: 301-402-0245; Email: NASH@CDDON.NIH.GOV.** *National Institutes of Health is an Equal Opportunity Employer.*

POSTDOCTORAL OPPORTUNITY for a recent Ph.D. well-trained in protein biochemistry and/or molecular biology to study the regulation and function of cytoplasmic dynein. Send curriculum vitae and names of three references to: **Dr. N. Ronald Morris, Department of Pharmacology, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854.** *The University of Medicine and Dentistry of New Jersey is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Disabled/Veterans, and a member of the University Health System of New Jersey.*

POSTDOCTORAL POSITION in organic chemistry or biochemistry to study chemical and metal carcinogenesis. The successful candidate will synthesize carcinogen-nucleic acid adducts and undertake investigations into mechanisms of carcinogen-DNA adduct formation, including the analysis of carcinogen-DNA adducts generated both *in vitro* and in tissue culture systems. Background and experience in organic chemistry and biochemistry required. Send curriculum vitae and three letters of recommendation to: **Thomas Meehan, Department of Biopharmaceutical Sciences and Division of Toxicology, Box 0446, University of California, San Francisco, CA 94143.**

INDIANA UNIVERSITY

POSTDOCTORAL POSITIONS are available to study the control mechanisms of cytokine gene expression and signal transduction. Candidates with background in molecular biology or biochemistry should send curriculum vitae and addresses of three references to: **Dr. Yu-Chung Yang, Walther Oncology Center, Indiana University School of Medicine, IB540, 975 West Walnut Street, Indianapolis, IN 46202. Telephone: 317-174-7512; FAX: 317-274-7592.**

POSITIONS OPEN

POSTDOCTORAL POSITION University of California-San Francisco

Two three-year positions are available to study molecular and cellular aspects of tumor immunobiology. Multidisciplinary approach utilizes molecular biology, including phage display, protein chemistry, cellular immunology, and biophysical techniques to develop novel recombinant antibody-based strategies for targeted tumor therapy. The successful candidate will have a Ph.D. and demonstrated experience in one of the following areas: cellular immunology, biophysics, protein chemistry, virology, or enzymology. Send curriculum vitae, brief statement of research interests, and names, addresses, and telephone numbers of three references to: **James D. Marks, M.D., Ph.D., University of California-San Francisco (UCSF), Room 3C-38, 1001 Potrero, San Francisco, CA 94110. Email: Jim_Marks@quickmail.ucsf.edu.**

POSTDOCTORAL POSITION available immediately to investigate mechanisms of primate lentivirus persistence and disease induction. Experience with HIV and SIV propagation, titration, and serology, including neutralizing antibody assays, expertise in constructing and characterizing wild type, mutant, and chimeric proviral DNA clones, and animal challenge experiments are required. Training in RNA and DNA PCR technology and FACS analysis are highly desirable. An M.D. or Ph.D. degree as well as training in immunology, retrovirology, and molecular biology are essential. Send curriculum vitae, statement of research experience, future goals and the names of three references by May 1, 1996 to: **Dr. Charles E. Buckler, Laboratory of Molecular Microbiology, NIAID, NIH, Building 4, Room 301, 4 Center Drive, MSC 0460, Bethesda, MD 20892-0460.** *NIH is an Equal Opportunity Employer.*

UNIVERSITY OF AUCKLAND New Zealand

POSTDOCTORAL POSITION available to join a team characterizing melanocortin receptors which are involved in activities including neuroendocrine and cardiovascular control, obesity, diabetes, and nerve injury. Background in molecular biology and signaling preferred. For further information contact: **Dr. Kathy Mountjoy, FAX: 64-9-373-7497; Email: kmountjoy@auckland.ac.nz.** Applications close April 19, 1996 with Registry, University of Auckland, Private Bag 92019, Auckland, New Zealand. Send curriculum vitae and names of three referees. Quote Vacancy Number UAC709.

HARVARD

POSTDOCTORAL POSITIONS are available to study molecular mechanisms regulating arteriosclerosis with special emphasis on molecular cloning, transcriptional regulation, and biological function of genes important for growth and differentiation of vascular smooth muscle cells, regulation of vascular tone, terminal differentiation of cardiomyocytes, and angiogenesis. Experience with molecular biology and/or protein chemistry is required. Please send curriculum vitae and names of three references to: **M. E. Lee, M.D., Ph.D., Associate Professor, Cardiovascular Biology Laboratory, Building 2, Room 129B, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION in Molecular Biology. Available immediately to study the impact of antiretroviral resistance mutations in HIV-1 protease and reverse transcriptase on viral replication and recombination. Procedures involve site-directed mutagenesis, PCR amplification and molecular cloning, recombinant protein expression and purification, mammalian cell transfection, and HIV-1 culture. *U.S. citizenship or permanent residency required.* Submit curriculum vitae and three references to: **Dr. Lisa M. Demeter, Infectious Diseases Unit, University of Rochester Medical Center, 601 Elmwood Avenue, Box 689, Rochester, NY 14642. FAX: 716-442-9328.**

POSTDOCTORAL POSITION available to study ion channel structure and/or function. Techniques used in my laboratory include: 1) electrophysiology to study the function of genetically-altered ion channels, 2) expression of ion channels for structural studies, and 3) X-ray structure determination of ion channel binding proteins (inhibitory and regulatory) and their complexes with their target domains on the ion channel. An individual with a strong background in either electrophysiology, structural biology, or biochemistry is sought. Send curriculum vitae and references to: **Roderick MacKinnon, Rockefeller University, 1230 York Avenue, New York, NY 10021.**

POSITIONS OPEN

WAYNE STATE UNIVERSITY SCHOOL OF MEDICINE

Three **POSTDOCTORAL POSITIONS** are available immediately in the Department of Pathology for successful hard-working candidates with strong motivation to become independent scientists in a productive and energetic research environment.

Position 1: To study growth factor and/or DNA damage-induced apoptotic pathways (*PNAS*, 92:95001, 1995; *Cancer Res.*, 55:4520, 1995). Strong background in molecular and cellular biology required. Send requests to **Dr. Hyeon-Reh Choi Kim.**

Position 2: To study the regulation of activation of matrix metalloproteinases in cancer (*Cancer Res.*, 55:2548, 1995). Applicants should have a strong background and experience in enzymology, protein chemistry, and molecular biology. Research involves structure-function studies of enzyme domains, enzyme-inhibitor interactions, kinetic analysis, site-directed mutagenesis, and recombinant protein expression. Send requests to **Dr. Rafael Fridman.**

Position 3: To study the role of tumor-stroma interactions on matrix metalloproteinase activation and inhibition in breast cancer. Experience in tissue culture, cell and molecular biology techniques, extracellular matrix substrates and biochemistry is essential. Send requests to **Dr. Rafael Fridman.**

Qualified applicants should send curriculum vitae, a brief description of research experience, and three names of references to: **Dr. Kim (Position 1) or Dr. Fridman (Positions 2 and 3), Department of Pathology, Wayne State University, 540 East Canfield, Detroit, MI 48201. FAX: 313-577-0057.**

POSTDOCTORAL RESEARCH POSITION THE JACKSON LABORATORY Bar Harbor, Maine

The NIDCD initiated a contract with the Jackson Laboratory (TJL) to screen for auditory deficits among the numerous strains of mice at TJL. The major effort will be to screen mice from each strain for auditory brainstem response (ABR) thresholds and to map newly identified genes. The **POSTDOCTORAL RESEARCHER** will also pursue studies on particular auditory genes and/or associated phenotypes.

Candidate must have Ph.D. or M.D., some experience testing animals, and be generally familiar with hearing. To apply, please submit a curriculum vitae and summary of research interests to: **Lawrence C. Erway, Ph.D., Screening Project Consultant, Department of Biological Sciences, University of Cincinnati, OH 45221-0006. Email: Larry.Erway@uc.edu.** *TJL is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION REPRODUCTIVE BIOLOGY

Recent Ph.D. with a strong background in male reproductive biology to study the effects of estrogen on epididymal function at the molecular level. Experience in molecular biology, endocrinology, and tissue culture desirable. Position available July 1996. Salary commensurate with experience. Send letter of application, curriculum vitae, and names of three references to: **Dr. David Bunick, University of Illinois, Department of Veterinary Biosciences, 2001 South Lincoln Avenue, Urbana, IL 61801. Closing date: April 15, 1996.**

POSTDOCTORAL POSITION

A **POSTDOCTORAL** or **RESEARCH ASSOCIATE** position is available immediately to characterize and clone genes affecting atherosclerosis using the mouse model. Techniques include genetic map construction, genotyping by PCR, and positional cloning. Interested candidates should contact: **Beverly Paigen, Ph.D., The Jackson Laboratory, Bar Harbor, ME 04609. FAX: 207-288-5172; Email: bjp@aretha.jax.org.**

POSTDOCTORAL POSITION available to study signal transduction through receptors for tumor necrosis factor and cytokine induction of cell proliferation/apoptosis (programmed cell death). Background in molecular biology/two-hybrid cloning/gene expression/cytokine-hormone action helpful. Curriculum vitae and names and FAX numbers of three references to: **Dr. David B. Donner, Walther Oncology Center, Indiana University School of Medicine, 975 West Walnut Street, IB501, Indianapolis, IN 46202. FAX: 317-274-3318.** *Equal Opportunity Employer.*

Cargill, one of the world's largest and most diversified companies is involved in the production, trade, transport and processing of commodities and financial investments. Recent expansion into complex and demanding new business areas and product lines has created exciting opportunities for talented chemists and scientists within our North American Corn Milling Operations based in Eddyville, Iowa.

Process Chemist

A PhD in Chemistry and at least 5 years of experience in industrial process chemistry, including organic and process chemistry experience, are required. You must be an extensive and original thinker able to identify, plan, perform and sell project ideas and work independently to prioritize and identify projects. The ideal candidate will be an outstanding communicator able to work with all disciplines within the organization. Primary responsibilities include developing downstream processes for fermentation as well as process improvement and cost reduction opportunities in the production plant.

Research Microbiologist

Applicants must have a PhD in Microbiology, Biochemistry, Microbial Physiology, Microbial Genetics or related discipline and 2-5 years of hands-on experience in microbial fermentation. Experience with biostatistical/factorial designs of experiments and strong interpersonal skills are required. Primary responsibilities involve propagating, manipulating, maintaining and preserving various microbial cultures/spores; and designing, conducting, recording and interpreting results using shakeflasks, bench-top, pilot, and production scale fermentors.

We offer a highly competitive compensation and benefits package in a smoke-free environment. For consideration, please send resume, including salary requirements and position of interest, to: Jeanne McCaherty, Cargill Corn Milling, 1 Cargill Drive, Eddyville, IA 52553-5000. Employment is contingent upon passing a pre-employment physical, drug and alcohol screen and criminal background check. For more information about Cargill visit our home page at www.cargill.com.

Cargill is an Equal Opportunity Employer.



NORTHWESTERN UNIVERSITY MEDICAL SCHOOL

ASSOCIATE DIRECTOR OF THE INTEGRATED GRADUATE PROGRAM

The Northwestern University Medical School invites applications for the position of Associate Director of the Integrated Graduate Program (IGP) in the Life Sciences. The IGP is a multidisciplinary program that includes 150 graduate students and 120 faculty involved in training and research in basic biomedical sciences. The Associate Director is responsible to the Director for development and implementation of policies and procedures for the IGP. The duties of the Associate Director include coordinating and organizing graduate student recruitment, orientation, laboratory research rotations, and qualifying examinations. The Associate Director is also responsible for collecting and maintaining records on past and present graduate students. The Associate Director has a non-tenure track faculty level appointment at the Medical School. Information on the IGP can be viewed at <http://www.nums.nwu.edu/~igp>

Candidates for the position must have a Ph.D. or equivalent experience with graduate education, and organizational and administrative skills. Strong interpersonal skills are required and experience with computer database management is desirable.

The position is available in April, 1996. Processing of applications will begin immediately and continue until the position is filled. Applications should include a curriculum vitae, a brief statement describing the applicant's qualifications for the position, and the names of three references. Applications should be mailed to: **IGP Associate Director Search, Ward 4-295 W150, Northwestern University Medical School, 303 E. Chicago Ave., Chicago, IL 60611.**

Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

Assistant Professor, Marine Botany

The Department of Biological Sciences at the University of Rhode Island requests applications for a new position in Marine Botany with a subspecialty in macrophyte ecology. Ph.D. required in a field of biological science on a topic in marine macrophyte ecology. Must demonstrate, by academic record and/or letters of recommendation, the academic background to teach both graduate and undergraduate courses in marine ecology. Must demonstrate, through publications and/or a research plan, the ability to develop a high-quality, fundable graduate research program that incorporates experimental and quantitative approaches in the field and laboratory. Postdoctoral and teaching experience preferred. This is a full-time, academic year, tenure-track position beginning 7/1/96. Review of applications will begin on April 8 and continue until the position is filled. **Submit a letter of application, resume and three letters of reference to: Marilyn Harlin, Search Committee Chair, (Log # 021270), UNIVERSITY OF RHODE ISLAND, P.O. Box G, Kingston, RI 02881.** The University of Rhode Island is an AA/EEO employer and is committed to increasing the diversity of its faculty, staff and students. Persons from under-represented groups are encouraged to apply.



SENIOR SCIENTIST

Otsuka America Pharmaceutical, Inc., located in Rockville, Maryland, is a progressive, global organization committed to developing innovative drugs for better health worldwide. To support our clinical development, we currently have the following Senior Scientist position immediately available:

ADENOSINE & ORGAN PROTECTION

The candidate we seek will have a Ph.D. in Cellular or Molecular Biology and 3-5 years of pharmaceutical industry (or academic) experience that includes in vitro and in vivo ischemic re-perfusion injury or other inflammatory models. Candidate should have knowledge of scientific concepts in the following fields: involvement of adenosine in organ protection and leukocyte function on biochemical, cellular and molecular basis, and signal transduction pathways involved.

We offer a competitive compensation/benefits package as well as relocation assistance. Please forward your resume to: **Manager of Staffing, OTSUKA AMERICA PHARMACEUTICAL, INC., 2440 Research Blvd., Rockville, MD 20850.** An Equal Opportunity Employer.

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Creating
New Products For
Better Health
Worldwide**



Neuroscientist

Assistant and Associate Professors LSU Neuroscience Center of Excellence

Full-time, tenure track faculty positions available from August 1, 1996. Applicants should have a Ph.D. and/or an M.D., postdoctoral training and a record of research excellence in molecular neurobiology as it relates to plasticity. Candidates should have an established record of extramurally funded research or potential to obtain funding. Joint appointments will be made in basic science or clinical departments and in the LSU Neuroscience Center. The Center, established in 1988, has had an interdisciplinary Ph.D. program since 1993. The Center fosters multidisciplinary research on the neurobiology of disease in stroke, epilepsy, and neurodegenerative diseases such as Parkinson's and Alzheimer's diseases and others. The Neuroscience Center also coordinates a human brain bank for studies of human neurologic and psychiatric disorders. A very attractive package, including space in a new research facility (more than 40,000 ft² of research space) and start-up funds, is available. The LSU Neuroscience Center is located in downtown New Orleans within minutes of the historic French Quarter.

Send curriculum vitae, description of current and future research plans (up to 3 pages) and names and addresses of 3 references to:

**Nicolas G. Bazan, M.D., Ph.D.
Director**

**LSU Neuroscience Center of Excellence
Louisiana State University Medical Center
School of Medicine
2020 Gravier Street, Suite B
New Orleans, LA 70112**

LSU is an Equal Opportunity Employer.

Wanted: Committed, ambitious scientist. Must be a team player with a vision for the future. M.D./Ph.D., Ph.D., M.S. or B.S. degree necessary.

Does this describe you?

If it does, then plan to attend the bioSCIENCE Career Fairs sponsored by SCIENCE. The bioSCIENCE Career Fairs offer the perfect opportunity for scientific professionals to meet in person with representatives from top biotechnology and pharmaceutical companies, universities, governmental agencies and institutions.

EDITORIAL SEMINAR: On the first day of the event from 11:00 - 11:30, a SCIENCE editor will conduct a seminar on "How to get a research paper published in SCIENCE."

1996 bioSCIENCE Career Fairs

San Francisco, CA on the Stanford Campus in Palo Alto, May 3-4.

May 3: 11am - 4pm; May 3 Seminar: 11 - 11:30am.

May 4: 12 noon - 4pm.

Just added! Careers in Biomedical Research: Join leaders from both industry and academia for a panel discussion sponsored by the Biomedical Association of Stanford Students on May 3, 12 - 1:30 p.m. at the Fairchild Auditorium. The panel discussion focuses on careers in biomedical research.

La Jolla, CA at The Scripps Research Institute, October 4-5.

**bioSCIENCE
CAREER FAIRS**

To pre-register, please submit your resume or CV via fax: (202) 289-6742, or via e-mail: bioscience@aaas.org. Please indicate to which bioSCIENCE Career Fairs you would like to have it distributed. Please remember to bring multiple copies of your CV or resume with you to the Career Fairs.

For more information please call (202) 326-7018.

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Grünenthal GmbH is a successful company working world-wide in the pharmaceutical industry with high-ranking products in their respective market segments.

In our research centre in Aachen almost 300 people are researching and developing new substances for future innovative drug specialities to be marketed world-wide.

To extend our activities in the Department of Synthetic Chemistry we are seeking

a PH.D. in Chemistry

for the position of

Head of Laboratory for Combinatorial Chemistry

The main task of this position will be to establish the technology of combinatorial chemistry as a means of searching for and optimizing a lead structure and exploiting it in conjunction with external know-how. Known chemical reactions are to be tested, optimized and used preferably on solid substrates to automatically synthesize substance libraries or individual substances simultaneously for screening.

To perform these extensive tasks, the head of laboratory is in charge of several technically highly qualified laboratory assistants.

If you have a **Ph.D. in Chemistry** - equal opportunities for men and women - and expertise in the modern methods of active substance synthesis, spectroscopy and chromatography **as well as** specialized knowledge of solid phase organic chemistry and combinatorial chemistry, preferably in the pharmaceutical industry, please send your written application (curriculum vitae, certificates of academic qualifications, referees) to the following address:

**Grünenthal GmbH
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Steinfeldstraße 2
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UNIVERSITÄT LEIPZIG

The University of Leipzig offers a five-year position as

**head of a clinical research group
of scientists in the field of
neurological research**

at the "Interdisciplinary Centre of Clinical Research."

This group is to study the pathogenesis of neurodegenerative diseases, Alzheimer's disease, Parkinson's disease, and Amyotrophic lateral sclerosis, working in co-operation with the clinical Centres of Neurology and Psychiatry.

We are calling upon expressions of interest from established researchers who have demonstrated excellence in the fields of Cell Biology and Molecular Biology.

Applicants are invited to send their CV, including a list of publications, no less than three references, and their conceptions of a clinical oriented research program to the address given below:

**University Hospital Leipzig
Dezemat 3, Personalwesen
Liebigstraße 20, D-04103 Leipzig, Germany**

For further information please contact: Coordinator of Neuroscience at IDZL, Prof. Dr. med. V. Bigl, Phone: +49-341-97 25 700.

**ASSOCIATED UNIVERSITIES, INC.
PRESIDENTIAL SEARCH**

The Trustees of Associated Universities, Inc. (AUI) seek nominations for a successor to the current AUI President, who is planning to retire after 16 years of service. AUI is a not-for-profit corporation, headquartered in Washington, DC, which operates the Brookhaven National Laboratory, under contract to the Department of Energy, and the National Radio Astronomy Observatory, under a cooperative agreement with the National Science Foundation.

Candidates should have an advanced degree in the physical sciences and have had significant experience both in research and in the management of research. Knowledge of federal R&D programs and agencies will be a strong asset. Salary is negotiable. The desired starting date is year-end 1996. Nominations of, and applications from, women and minority candidates will be especially welcome.

Inquiries, nominations, and applications should be sent to:

**Dr. John A. Armstrong
Search Committee Chair
Associated Universities, Inc.
1400 Sixteenth Street, NW, Suite 730
Washington, DC 20036-2217**

GLOBAL CAREER OPPORTUNITIES



**The University of Sydney
AUSTRALIA**

POSTDOCTORAL FELLOW

Department of Veterinary Pathology

Reference No. A08/05

The Department of Veterinary Pathology is engaged in a collaborative research project to investigate the role of immune activation in limiting growth performance in pigs. A postdoctoral appointment is available to lead a research team investigating cytokine and acute phase protein responses to microbial load and environmental and social stress, leading to intervention strategies to modify the host response. The successful applicant will be required to plan and implement a research programme and to assist in the supervision of other research and technical personnel.

Experience in immunology, molecular biology, immunohistology, and cell culture procedures, and the demonstrated ability to participate in collaborative research programs are essential. Evidence of an ability to initiate and execute independent research accompanied by an appropriate publication record will also be required. A PhD or equivalent degree is essential and agricultural or veterinary qualification is desirable.

The appointment will be for up to three years, subject to funding and need. For further information contact Professor A Husband (61 2) 351 3127.

Salary: Postdoctoral Fellow A\$38,092 - A\$40,889 p.a.

Closing: 4th April 1996.

Method of application for academic positions: Three copies of the application, quoting Reference No., curriculum vitae, list of publications and the names, addresses and fax numbers of at least three and not more than five confidential referees to: The Personnel Officer, (Sciences Group), Carslaw Building, (F07), The University of Sydney, NSW, 2006 Australia.

Equal employment opportunity and no smoking in the workplace are University policies. The University reserves the right not to proceed with any appointment for financial or other reasons.

13476

**THE INSTITUTE FOR IMMUNOLOGY
AND ALLERGY RESEARCH
WESTMEAD HOSPITAL, AUSTRALIA**

**Senior Research
Scientist**

Ad No: MB96908-704 Close Date: 5.4.96

A position exists for a molecular biologist/cell biologist in a research program working on the isolation, cloning and characterisation of a novel lymphokine. The program is part of the newly formed Institute for Immunology and Allergy Research, a member of the Westmead Institutes of Health Research. The Westmead campus houses Westmead Hospital and the Royal Alexandra Hospital for Children which are teaching hospitals of the University of Sydney. Applicants should hold a PhD degree or equivalent and have at least 5 years post-doctoral experience in molecular biology and cell biology. Experience in cytokine research would be an advantage. Salary will be in the range \$50,000 to \$60,000 plus superannuation. Funding for the project is expected to continue for 3 years. Assistance with relocation expenses will be provided. Facilities also exist for applicants to continue ongoing research interests. Please send CV with list of publications, letter of interest outlining relevant areas of expertise and names of four referees to: Dr Elizabeth Benson, The Institute for Immunology and Allergy Research, PO Box 145, Westmead NSW 2146, Australia. For informal contact telephone 61 2 845 6933 or fax 61 2 891 3889.

The Department of Radiology at the University of Pittsburgh, School of Medicine is recruiting for the position of an experienced MRI physicist to work in the newly established MR Research Center.

This is a non-tenure stream position with an expected hiring date in the Fall of 1996. This position is at the rank of Assistant Professor, depending on past experience and academic credentials. Salary for this position is dependent on experience and training.

Candidates must have a Ph.D. in MRI/MRS physics and 5 years postdoctoral experience in MRS/MRI. The successful applicant must be familiar with software and algorithm development for Signa whole body scanners and have evidence of research activity that has resulted in publications and presentation. The successful candidate will report to the Chief of MR Research. The job responsibilities will include development of software, creation of parametric images including MR angiograms, display of MRI and MRS images for clinical interpretation, and the use of echo planar functional MRI data.

Interested candidates should submit a completed curriculum vitae to **Keith Thulborn, M.D., Ph.D., Chief, MR Research, MR Research Center B-822.1, Presbyterian University Hospital, University of Pittsburgh Medical Center, Pittsburgh, PA 15213.** *The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.*

FRED HUTCHINSON CANCER RESEARCH CENTER

A new drug discovery project, termed "The Seattle Project," has been initiated in the Clinical Division of the Fred Hutchinson Cancer Research Center. Our goal is to develop new paradigms for discovering anti-cancer chemotherapeutic drugs. The project will grow to a size of 20-30 people.

Opportunity for Chemist-Molecular Biologist

We are seeking a chemist interested in working on projects to identify protein targets for drugs that selectively kill yeast cells defective for their damage responses. Experience in signal transduction pathways, yeast two-hybrid screens, and synthetic organic chemistry is required. This is a tenure track position with an appointment in the Molecular Pharmacology Program of the Clinical Division.

Opportunity for Molecular Biologists at both Post-Doctoral and Senior Scientists Levels

We are seeking molecular biologists interested in working on projects to identify drugs that selectively kill mammalian cells defective for their damage responses. Some of these projects are focused on developing new assays to detect damage response pathways defective in cancer cells. Other projects involve identifying the components of these pathways. Experience in mammalian repair pathways and cancer biology is required. These positions will have appointments in the Molecular Pharmacology Program of the Clinical Research Division.

Please send C.V., three letters of recommendation (to Steve Friend, M.D., Ph.D.), and a description of current research endeavors and long term interests by May 1, 1996.

Steve Friend, M.D., Ph.D.
Director of Molecular Pharmacology
Fred Hutchinson Cancer Research Center
1124 Columbia Street, M477
Seattle, WA 98104

Lee Hartwell, Ph.D.
Department of Genetics
Box 357360
University of Washington
Seattle, WA 98195-7360

GLOBAL CAREER OPPORTUNITIES

Position of Professor of Organic Chemistry in Lyon

Lyon's strong tradition and reputation in organic chemistry dates to the epoch of Victor Grignard. Lyon remains a leading industrial and academic center for organic chemistry in Europe. A partnership between Claude Bernard University, the newly created School of Chemistry, Physics and Electronics of Lyon, and a consortium of industrial partners invite applications for a post of:

Professor of Organic Chemistry

The position will be granted to an outstanding established organic chemist. Excellent facilities (lab space, equipment and positions) will be associated with this professorship.

Applications will be accepted until June 1st, 1996. The position should start officially in mid-1997.

Please send your curriculum vitae and letter of intention to:

Jean-Marie BASSET
Scientific Director

CPE-Lyon - Bât. 308
43 boulevard du 11 Novembre 1918
69616 Villeurbanne Cedex
Fax: (33) 72 43 16 70

or

Joseph REMILLEUX
President of the Scientific Council
Universitat Claude Bernard-Lyon I
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COVERS THE WORLD

TROPHIX PHARMACEUTICALS, INC.

Trophix Pharmaceuticals, Inc. is an early stage biopharmaceutical company devoted to developing novel therapeutics for neurological and neuropsychiatric disorders by integrating the latest advances in cell and molecular neurobiology, neuropharmacology and medicinal chemistry.

RESEARCH SCIENTIST MOLECULAR PHARMACOLOGY

We seek a Molecular Pharmacologist to join our drug discovery team. The successful candidate will have a Ph.D. and at least 2 years of Post-Doctoral training. A working knowledge of receptors, channels, and/or second messengers is required, as is familiarity with cell cultures and heterologous expression systems. Industrial experience, especially with high-throughput drug screening/assay development, is strongly preferred.

Trophix is located in South Plainfield, New Jersey, approximately 40 minutes from New York City. Send resume along with salary history and references to:



Trophix
Pharmaceuticals, Inc.
40 Cragwood Road
South Plainfield
NJ 07080
Attn: Human
Resources/MP

Special Advertising Supplement

Career Opportunities for Scientists with Disabilities

14 June 1996

On 14 June, SCIENCE will publish a special advertising section devoted to career opportunities for scientists with disabilities. This section will examine the steps being taken by employers to make their work environments accessible to all scientists.

- What are companies and institutions doing to create barrier-free buildings and work stations?
- How do organizations utilize the thousands of devices designed to accommodate people with special needs?

By advertising in this special section, your organization can send a recruitment message and show support for hiring scientists with disabilities.

Bonus Distribution

This issue will be distributed to the AAAS Resource Group of Scientists and Engineers with Disabilities.

Benefits to Full Page Advertisers:

• Special Positioning

Full page recruitment advertisements will receive placement throughout the career-related special advertising section.

• Advertiser Indexes

An index of full page recruitment advertisements referring readers to your ad in the special section will be published in this issue.

Names of full page recruitment advertisers will also be listed on an index affixed to the covers of magazines mailed to the AAAS Resource Group of Scientists and Engineers with Disabilities.

• The Internet

The advertising supplement will also be published on SCIENCE Classified Advertising On-line. An on-line advertiser index will link directly to your full page ad, and we will link your on-line ad to a listing of your career opportunities or your home page for no additional charge.

All recruitment advertisements are posted on SCIENCE Classified Advertising On-line. <http://www.aaas.org>

To advertise contact Janis Crowley
Phone: (212) 496-7704; FAX: (202) 682-0816.

Advertising space reservation deadline: 21 May

SCIENCE

**Boehringer Ingelheim
Animal Health, Inc.
Clinical Investigator**

Boehringer Ingelheim Animal Health, Inc., manufacturer of animal health products, has an immediate opening for a Clinical Investigator.

Qualifications for the position include a D.V.M. or Ph.D. degree plus 3-5 years of research experience in the animal health industry. The ideal candidate will possess understanding of and experience with FDA Good Laboratory Practice (GLP) and Good Clinical Practice (GCP) regulations, animal research protocol development, animal testing management or study direction, raw data interpretation, and the production of scientific reports.

Excellent interpersonal skills with oral and written communication aptitudes are required. Computer literacy (IBM based) is also necessary.

Product development experience is preferred and 2-5 years of practice or practical experience is desirable.

Excellent compensation package offered. To apply, send resume and salary requirements to:

**Vice President, Human Resources
Boehringer Ingelheim Animal Health, Inc.
2621 North Belt Highway
St. Joseph, MO 64506**

Equal Opportunity Employer



**Boehringer
Ingelheim**

**MARY GERTRUDE I'ANSON PROFESSOR OF TISSUE
ENGINEERING**

UNIVERSITY OF TORONTO

The Institute of Biomedical Engineering of the University of Toronto is seeking applicants for the I'Anson Professorship in Tissue Engineering. This is a tenure-track position for an Assistant Professor. Cross-appointments will be made to the Department of Chemical Engineering and Applied Chemistry and the most appropriate unit within the Faculty of Medicine, pending the background and specific research interest of the successful candidate.

The I'Anson Professor is expected to initiate a new collaborative research program addressing fundamental problems in tissue engineering such as, but not limited to, controlling *inflammation*, defining the mechanisms of *cell activation*, or the interactions between *cytokines* and *extracellular matrix*. The I'Anson Professor is expected to teach in the existing Bachelor's, Master's and Doctoral Programmes, and to supervise graduate students. The I'Anson Professor is expected to be a major contributor to the development of Cellular and Molecular Bioengineering at the University of Toronto and to the strengthening of existing linkages between the Faculty of Medicine and the Faculty of Applied Science and Engineering. The Institute for Biomedical Engineering is part of both Faculties: its mission is to teach students "to identify and solve critical problems in biology, medicine and health management, where engineering and physical science can make significant contributions. The Health Sciences complex at the University is one of the largest in North America.

The successful applicant will have a Ph.D., excellent teaching skills, a strong background in his or her discipline and demonstrated success at collaborative research at the interface between engineering and medicine. An engineering background is not a prerequisite.

Applications should be sent to **Professor Michael V. Sefton, Institute of Biomedical Engineering, University of Toronto, Toronto, Ontario, M5S 3G9**. Include a C.V., a summary of research and teaching interests, and letters from three references. The closing date for applications is May 31, 1996. The effective date of the appointment will be September 1, 1996.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples and persons with disabilities.

BIOINFORMATICS

SmithKline Beecham Pharmaceuticals has one of the largest and most active bioinformatics groups in the industry, geared toward genomics and in particular, the analysis of expressed sequences and the understanding of the relationships among sequence, structure and function. This leading transnational healthcare company was the first to make a major commitment to genomics, and to realize the critical role of bioinformatics in this endeavor.

The sizeable bioinformatics support and development group is not only growing, but is now being augmented with a research component that will be expected to make fundamental new contributions to the field. This reflects the highest level of commitment in creating a premier Center of Excellence for this emerging technology.

We are currently seeking computational biologists at the Master's and PhD level, with varying experience, including senior researchers with proven records in academic research. Positions are available in both the Philadelphia (US) and London (UK) areas.

Particular areas of interest include:

- Search and analysis, including algorithmic, statistical and machine learning techniques
- Knowledge management, including advanced database technology and knowledge representation
- Mapping and genomics, including novel approaches to comparative mapping and complex traits
- Sequence/structure/function, including novel prediction and classification methods

SmithKline Beecham offers an exceptional compensation/benefits/relocation package as well as a stimulating working environment. For confidential consideration, please send a resume and salary requirements to: SmithKline Beecham Pharmaceuticals, Job Code A6- RADS, P.O. Box 2645, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



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A Special Advertising Supplement

Women in Science

Bonus distribution to

- Association for Women in Science
- bioSCIENCE Career Fair, 3-4 May, Stanford University, Palo Alto, CA

Issue Date: 26 April • Space reservation deadline: 9 April

Advertise in the Women in Science Advertising Supplement.

In the 26 April *Women in Science* special section, we will examine the challenges facing women scientists in industry. By running a full page advertisement in this issue, you can show your commitment to hiring women scientists at every professional level and showcase your organization as an ideal workplace for women.

Participate in the SCIENCE-sponsored bioSCIENCE Career Fair!

When you advertise in the 26 April issue, your organization can also participate in the bioSCIENCE Career Fair being held on the Stanford University campus in Palo Alto, CA, May 3-4. This career fair is open to experienced scientists. BS, MS and PhD scientists from all disciplines will attend.

Great benefits for all advertisers:

- Qualify to participate in the SCIENCE-sponsored bioSCIENCE Career Fair, 3-4 May, Stanford University, Palo Alto, CA.
- Bonus distribution to the Association for Women in Science, and to the bioSCIENCE Career Fair.
- Free placement on SCIENCE Classified Advertising On-line: Thousands of scientists tap into this premier on-line career service: <http://www.aaas.org>

Exclusive benefits for full page advertisers:

- **Preferred position:** Full page advertisers receive preferred positioning in the editorial section of this special advertising supplement.
- **Full page advertiser index: in print and on-line!** Your organization will receive a feature listing in an advertiser index both on-line and in print.

**To advertise contact Janis Crowley
Phone: (212) 496-7704; FAX: (202) 682-0816.**

SCIENCE

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SAVE 25%

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

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University of California at Berkeley

Dr. Joshua Boger

Vertex Pharmaceuticals

Professor Peter Dervan

California Institute of Technology

Professor Peter Kollman

University of California at San Francisco

organizer....

Dr. Anthony W. Czarnik

Parke-Davis Pharmaceutical Research

May 3, 1996, 9 am - 4 pm

1800 Chemistry Building

University of Michigan

No Registration Required

contact: Dr. Anthony Czarnik, (313) 996-5246, czarnia@aa.wl.com

Assistant Professor

The Department of Biological Sciences of Wellesley College, Wellesley, Massachusetts, has a three year non tenure-track position for a Physiologist at the Assistant Professor level. This individual will be involved in the teaching of some combination of animal physiology, human biology, neurobiology, introductory organismal biology and cell physiology. Applicants must have a Ph.D. and a record of teaching and research in this area.

Send a cv and three letters of reference by April 15, 1996 to:

Search Committee Chair

Department of Biological Sciences

Wellesley College

106 Central Street

Wellesley, MA 02181

Wellesley College especially welcomes applications from ethnic minorities.



Wellesley College

FACULTY POSITION UCLA MEDICAL SCHOOL

The Department of Pathology and Laboratory Medicine invites applications for a tenure-track position at the Assistant or Associate Professor level in the field of **epithelial cell biology and pathogenesis**. Investigations on polarized cell types are now poised for major advances in our understanding of epithelial cell genetics, differentiation and regulation of growth, and the roles that cell-cell interaction and cell signalling play in these processes. Areas of focus for prospective candidates may include transgenic and somatic gene transfer systems for the study of mammalian epithelial cells; model genetic systems to study epithelial development (e.g. *Drosophila*, *Caenorhabditis elegans*); molecular biochemistry of inter- and intracellular signalling in differentiation, growth control and carcinogenesis; molecular and genetic analysis of host-pathogen interactions and mucosal immunity.

This recruitment builds on the outstanding scientific environment and attractive Westwood campus of UCLA, the cosmopolitan environment of Los Angeles, and the accessible mountain, ocean, and desert recreational areas of Southern California. A comprehensive set-up package of state-based salary, operational resources, and new laboratory space will be available to the successful candidate. Qualified applicants possessing the M.D., Ph.D., or equivalent degree should send curriculum vitae, statement of research interests, and the addresses and telephone and fax numbers of three references to: **Oliver Hankinson, Ph.D., Search Committee Chair, Department of Pathology and Laboratory Medicine, University of California, 10833 Le Conte Avenue, Los Angeles, CA 90095-1732. The University of California is an Affirmative Action/Equal Opportunity Employer.**

The Institute of Genomic Medicine (IGM), a nonprofit organization dedicated to mapping the human genome and understanding the genetic causes of diseases, seeks to hire a geneticist/molecular biologist with outstanding conceptualization and writing skills. This person will serve as the GRANTS SCHOLAR for a highly qualified team of scientists (MD's and Ph.D.'s). Candidates must possess a Ph.D. degree in molecular biology with strong interests in the areas of cell biology and the genetics of human disease. Recent postdoctoral experience is essential. Scientific insight, dedication, a results-oriented focus, and the ability to work as a member of the team are musts.

The Institute of Genomic Medicine was founded by scientists from Harvard Medical School. The Institute is located in the greater Boston area, amidst strong academic and medical institutions. The IGM offers a competitive academic salary and benefits package. The significant opportunities for professional growth in an environment of scientific innovation and excellence makes this a unique situation.

Qualified candidates should submit a cover letter, their curriculum vitae, samples of scientific writing, and two letters of reference to: **The Institute of Genomic Medicine, Building 96, 13th St., Charlestown, MA 02129, Attn.: Dr. George Scheele. An Equal Opportunity Employer M/F/D/V.**

POSITIONS OPEN

HEAD, DEPARTMENT OF PLANT, SOIL, AND ENVIRONMENTAL SCIENCES Montana State University

We are seeking a dynamic individual to lead and coordinate teaching, research, and outreach programs in agronomy, horticulture, plant improvement, soil science, and weed science. Required qualifications: 1) Earned Ph.D. in crop science, horticulture, plant science, soil science, or closely related field, and 2) Academic qualifications necessary to qualify for initial appointment as **ASSOCIATE** or **FULL PROFESSOR**. Applicants must request a copy of the complete vacancy announcement, which describes required and preferred qualifications and application procedures, from the address below. Screening of applications will begin May 6, 1996 with a starting date on or before November 1, 1996. Please contact: **PSES Department Head Search Committee, 202 Linfield Hall, Montana State University, Bozeman, MT 59717. Telephone: 406-994-3681; FAX: 406-994-6579; Email: aaxsm@msu.oscs.montana.edu. ADA/Equal Opportunity/Affirmative Action/Veterans Preferred.**

POSTDOCTORAL POSITION available to study agonist activated ion channels and changes in intracellular calcium in megakaryocytes. Previous experience with patch clamp electrophysiological techniques and single cell fluorometry is highly desirable. Send curriculum vitae, a statement of research experience, and names, addresses, and telephone numbers of three references to: **Dr. Alan Fein, Department of Physiology, University of Connecticut Health Center, Farmington, CT 06030. FAX: 203-679-1269; Email: afein@neuron.uchc.edu.**

EMORY UNIVERSITY

A **POSTDOCTORAL POSITION** is available to study the biochemical pathways leading to apoptosis in mammalian cells (*JBC*, 270:18044; 1995; *EMBO J.*, 15:1012, 1996). This position requires training in biochemistry or molecular biology. Interested candidates should send curriculum vitae to: **Dr. Xiaodong Wang, Department of Biochemistry, Emory University School of Medicine, 4117 Rollins Research Center, Atlanta, GA 30322.**

POSITIONS OPEN



SENIOR SCIENTIST BACULOVIRUS EXPRESSION

Novagen has an immediate opening for a senior-level **R&D SCIENTIST**. This position requires extensive experience with the baculovirus expression system. The ideal candidate will have a thorough knowledge of baculovirus biology. In addition, the position requires basic molecular biology skills: protein expression and purification, PCR, DNA isolation and cloning. Minimum qualification is an M.S. degree with three years of experience. Send resumé to: **Novagen, Inc., 597 Science Drive, Madison, WI 53711. Novagen, Inc. is an Equal Opportunity Employer.**

DEVELOPMENTAL BIOLOGIST: Seaver College of Pepperdine University is seeking a broadly trained person with competency in cell biology, genetics, and developmental biology (plant or animal systems). Our current approval is for a one-year (1996 to 1997) appointment only; approval is pending for tenure-track status for this position.

The successful applicant will be expected to teach general genetics and developmental biology for upper-division biology majors and participate in the introductory cell biology course for freshman biology majors, and may also be assigned a non-majors biology course as needed. For tenure-track consideration, potential for research, including the supervision of undergraduate research students, will also be a major consideration. Applicants should provide a letter of interest, curriculum vitae, and the names and telephone numbers of at least three references to: **Dr. Norman Hughes, c/o Natural Science Division, Pepperdine University, Malibu, CA 90263. Email: nhughes@pepperdine.edu.** Applications will be reviewed until a suitable candidate is found, but should be received by 1 May 1996 to ensure consideration. Pepperdine University is an independent Christian university affiliated with the Churches of Christ. *An Equal Opportunity Employer; women and minorities encouraged to apply.*

POSITIONS OPEN

PRE- AND POSTDOCTORAL POSITIONS AT HARVARD

Pulmonary Biology and Pathobiology

POSTDOCTORAL POSITIONS in lung biology and respiratory diseases supported by an NHLBI Training Grant are available now. Doctoral positions (Ph.D. and Sc.D.) will be available in 1997. Areas include biomechanical properties of cells and tissue in normal and inflamed lungs, smooth muscle and airway constriction in asthma, mediators and adhesion molecules involved in pulmonary inflammation, the effects of inhaled particles, lung infections, control of breathing in humans, sleep-related breathing disorders and respiratory sensations, as well as epithelial cell, macrophage, lymphocyte, and neutrophil lung biology. Cellular, molecular, and integrative physiological approaches are encouraged. Please send curriculum vitae, a brief statement of goals, and names of three references to: **Joseph D. Brain, Physiology Program, Department of Environmental Health, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115. Telephone: 617-432-0926; FAX: 617-432-4710. Further information available at <http://ppg-core:70>. Telephone inquiries encouraged. NIH support available for U.S. citizens and permanent residents. Minority applicants encouraged.**

PROTEIN CHEMIST TECHNICIAN

Position available for qualified protein/peptide **CHEMIST** to work in the National Institute of Allergy and Infectious Diseases (NIAID), NIH. Candidate should have expertise in peptide chemistry, protein purification and analyses, and/or protein expression technology. Salary will be commensurate with credentials. Prefer M.S./B.S. with experience. Will consider Ph.D. *U.S. citizenship required.* For application information please **Telephone: 301-496-3213.** Qualified candidates should send curriculum vitae, including three references, to:

**NIAID Personnel Office
Building 31, Room 7A20
31 Center Drive MSC 2520
Bethesda, MD 20892-2520
Attention: Kristie Daniel**

NIH is an Equal Opportunity Employer.

CHAIRPERSON

DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

The University of Texas Medical Branch (UTMB) at Galveston invites applications and nominations for the position of Chair of the Department of Microbiology and Immunology. UTMB seeks a distinguished scientist with an M.D. and/or Ph.D. degree, an outstanding record of significant scientific productivity, a commitment to excellence in teaching both graduate and medical students, and an ability to attract external funding. The candidate should also have the capability to offer scientific leadership to a department covering the broad disciplines of microbiology and immunology and the commitment to lead the department to national prominence and academic excellence. The department occupies space in a new research building. Collaborative opportunities with many departments and centers, including the WHO Collaborating Center for Tropical Diseases and Sealy Center for Molecular Science at UTMB are of the highest caliber. Current Departmental and campus-wide strengths include virology, intracellular bacteriology, and mucosal immunity. Strengthening immunology or building upon existing areas of excellence, including interactions with strong divisions in Internal Medicine, Pediatrics and Pathology, would offer a rewarding leadership opportunity.

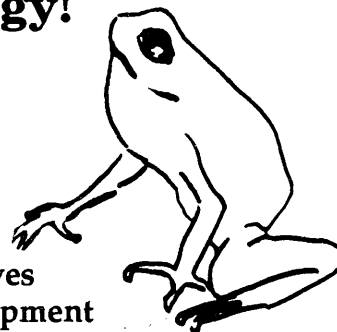
The Department currently includes 28 full-time faculty members. The new Chair will have the opportunity to recruit additional faculty members. The Department is responsible for teaching UTMB medical students and has an active Ph.D. graduate program.

Interested applicants should send a detailed curriculum vitae, an outline of current and future research interests, and names of three references to: **David H. Walker, M.D., Chair, Microbiology Search Committee, Department of Pathology, The University of Texas Medical Branch, 301 University Blvd., Galveston, TX 77555-0609. UTMB is an equal opportunity affirmative action employer M/F/D/V.**

SYMPOSIUM

Advances in the Biology of the Skin: Pharmacology & Toxicology!

**Toxicology
Pharmacology
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Percutaneous Absorption
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A three and one-half day symposium on the campus of Rutgers University, June 24-27, 1996. Sponsored by The Environmental and Occupational Health Sciences Institute (EOHSI) at the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School and Rutgers University. For information: **Diane E. Heck, Ph.D. or Jeffrey D. Laskin, Ph.D., EOHSI, 681 Frelinghuysen Rd, Piscataway, NJ 08855 (908) 445-0219, FAX (908) 445-0119 or Howard Maibach M.D., UCSF (415) 673-3533, FAX (415) 673-9693. Registration and abstract forms: (908) 235-5062.**

POSITIONS OPEN

VIRAL PATHOGENESIS SCIENTIST

Virion Systems, Inc., a Maryland biotechnology corporation, seeks a **SCIENTIST** with expertise in viral pathogenesis using small animal models. Our projects include studies of the pathogenesis and therapy of viral infections, and the development of new vaccines and vaccine strategies for viral and bacterial agents. The position requires a doctoral degree and postdoctoral experience. Candidates with clinical experience and/or experience with paramyxovirus or herpesvirus pathogenesis will be favored. Please send a letter of interest, a curriculum vitae, and the names of three references to: **Dr. Gregory A. Prince, Vice President, Virion Systems, Inc., 9610 Medical Center Drive, Suite 100, Rockville, MD 20850. An Equal Opportunity/Affirmative Action Employer.**

The Research Centers in Minority Institutions (RCMI) program at Clark Atlanta University seeks an experienced **TOXICOLOGIST** to coordinate the research and research-related activities in its Center for Research in Environmental Science and Toxicology (CREST). The person selected must have demonstrated relevant research productivity in environmental toxicology or a related area. He or she must also have proven leadership skills. A Ph.D. degree in toxicology or a closely related field is required. Interested persons should send a current curriculum vitae to: **Dr. Juarine Stewart, Director, RCMI Program, Clark Atlanta University, James P. Brawley Drive at Fair Street, SW, Atlanta, GA 30314. Clark Atlanta University is an Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE UNIVERSITY OF TEXAS AT EL PASO DEPARTMENT OF BIOLOGICAL SCIENCES

Position is available April 15, 1996 to participate in an NIH-funded research project on cell cycle modulation of DNA repair. Ph.D. in biochemistry and/or biology with a research background in molecular biology, tissue culture, PCR, construction of genomic libraries, and DNA sequencing. Supervise undergraduate and graduate students in the laboratory. Send curriculum vitae, a short statement of research accomplishments, and three letters of recommendation to: **Dr. Pablo Arenaz, UTEP, Department of Biological Sciences, El Paso, TX 79968-0619. Telephone: 915-747-6005. Deadline for receipt of résumés is April 1, 1996. The University does not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in employment or the provision of services.**

A **RESEARCH POSITION** is available. Candidates must possess a Ph.D. in immunology or parasitology and a minimum of five years of research experience in parasitology or immunology. A strong background in experimental vaccination in animals, cytokine biology, protein chemistry, and molecular biology is required. Knowledge and experience in tropical medicine and excellent verbal and written communication skills are required. Technical expertise in hybridoma monoclonal antibody, ELISA, immunofluorescence, immunoprecipitation, FACS analysis, Western, Northern and Southern Blots, DNA sequencing, PCR, DNA cloning and plasmodial culture are required. Previous experience in designing an animal model for malaria vaccination based on malarial erythrocytic proteins is greatly desirable. Candidates must have NIH funding. Salary \$35,000 per year. For immediate consideration send a curriculum vitae to: **Division of Hematology, Montefiore Medical Center, 111 East 210 Street, Bronx, NY 10467. Attn: Malaria research position.**

EAST TENNESSEE STATE UNIVERSITY

RESEARCH FELLOW/INSTRUCTOR—Experienced Ph.D. to work on the molecular mechanisms of regulation of cholesterol biosynthetic genes in cultured cells. Salary negotiable depending on experience. Approximate start date: July 1, 1996. Apply to: **Dr. Michael Sinensky, Chairman, Department of Biochemistry, Quillen College of Medicine, East Tennessee State University, Box 70, Johnson City, TN 37614-0581. Position contingent upon outside funding. Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE. Ph.D. in chemistry, biochemistry, or related field. One year of experience pre- or postdoctoral in studying mast cells and in using fluorescent imaging, cell culture, and protein purification techniques. \$26,000 per year. 40 hours per week 8:30 a.m. to 5:00 p.m. Apply: **Employment Security Commission, 1105 Briggs Avenue, Durham, NC 27703** or nearest **Job Service Office.** Refer to Job Order Number NC3052480, DOT code 041.061-026. State Social Security Number. State basis for work authorization in the United States.

SYMPOSIUM

AN INTERNATIONAL SYMPOSIUM The Explorers Club FIRST ANNOUNCEMENT Presents an International Interdisciplinary Conference

OCEAN PULSE: A Critical Diagnosis Our Global Oceans as Earth's Last Frontier and Door to the Past

September 29—October 4, 1996
Istanbul, Turkey

The conference will focus on the Harvests from the Sea with special emphasis on Aquaculture techniques and progress (Section I); Marine Archaeology, its preservation and knowledge base (Section II); and Marine Technology including deep ocean exploration (Section III). Conference Section Chairs include: **Dr. Sylvia A. Earle, Dr. George Bass, Dr. Robert Abel, Dr. Jerry Schubel, Dr. John Loret, Dr. William Phoel, Dr. Paul Sandifer,** and a host of over 40 leading scientists presenting their most recent scientific findings. Organizers: **Dr. John T. Tana-credi, U.S. National Park Service** and **Dr. John Loret, The Explorers Club.** Initial Co-Sponsors: United Nations (NGO); Explorers Club; Deep Ocean Engineering Inc. and Megatrails Consultants. Contact: **Mr. Sedat Nemli, Megatrails, 400 Madison Avenue, Suite 307, New York, NY 10017 USA. Telephone: 212-888-9422; 800-547-1211; FAX: 212-888-9819; Email: mega@brainlink.com.** Conference package: RT NYC/Istanbul, Turkey; Hotel/meals/conference registration now through June 15, 1996, \$2,168.00 per person.

ANNOUNCEMENTS

BIOLOGICAL ANTHROPOLOGY

State of the Science Summer Institute, International Institute for Human Evolutionary Research, Bend, Oregon June 17 to 22, 1996. Sessions in the most rapidly developing fields within the discipline taught by leading biological anthropologists. For further information and application materials contact: **Joseph Sheppherd, IHER, Central Oregon University Center, 2600 NW College Way, Bend, OR 97701. Telephone: 541-383-7215; FAX: 541-383-7535; Email: iher@cocc.edu.**

FRACTAL 97 Fourth International Multidisciplinary Conference April 8 to 11, 1997, Denver, Colorado, USA Call for Papers

Further information from: **Dr. M. M. Novak, School of Physics, Kingston University, Surrey KT1 2EE, England. http://www.kingston.ac.uk/~ap-s412, Email: novak@kingston.ac.uk; FAX: +44-181-547-7562; Telephone: +44-181-547-2000.**

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Journal -Vol. 69 Pg 2112-2124, Nov. 1995**

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Marketplace ads continue on page 1774

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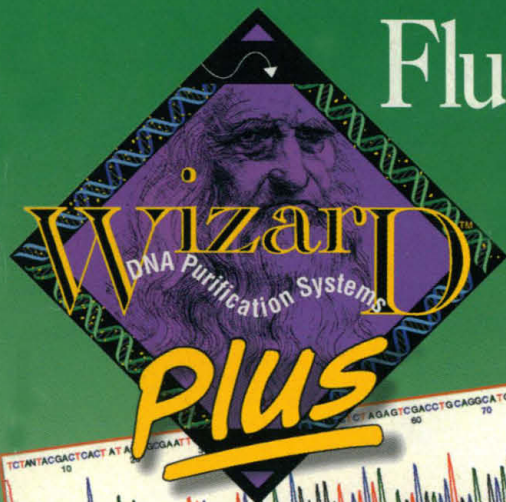
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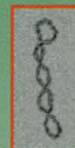
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