

Products & Materials

UV Light Detectors

A new line of broad-band ultraviolet light detectors spans both the ultraviolet-A (320 to 400 nm) and the ultraviolet-B (280 to



320 nm) spectras and offers excellent sensitivity and cosine response. The units are totally solar-blind. Ultraviolet-sensitive phosphors are made use of to "down convert" the incoming ultraviolet radiation to visible light, which is then detected by a gallium arsenide phosphide photodiode. Detectors are available with and without internal amplification. Yankee Environmental Systems. Circle 347.

Balance Enclosure

The MYSTAIRE Model 2400 Balance Enclosure is a workstation for weighing, measuring, pouring, mixing, and performing all process operations that involve dust, particulates, powders, and vapors. It incorporates a prefilter and a high-efficiency particulate filter that combine to remove 99.99% of particulates larger than 0.3 μm . An optional activated carbon filter is also available to simultaneously capture vapors and particulates. Heat Systems. Circle 348.

In Situ Sensor

The Steam Sterilizable Insertion Sensor can be installed vertically or via a side entry port in fermentation vessels and reactors. The assembly features a combination pH or redox electrode with sealed reference. The electrode can be replaced in seconds without dismantling the assembly or the use of special tools. Van London Co. Circle 357.

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

Antibody and Antibody Subclass Testing

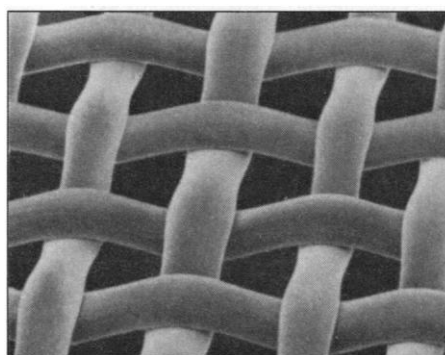
The Human Ab-STAT and Mouse Ab-STAT kits are 10-min membrane-based enzyme immunoassays for testing human and mouse antibody reactivity against antigens of the user's choice. Whole blood, plasma, serum, cell culture supernatant, ascites fluid, bioreactor product, or purified antibody can be tested. Qualitative or semiquantitative results are based on membrane color development and are read visually, without instrumentation. The ISOTYPE Ab-STAT test allows sensitive and specific determination of mouse monoclonal antibody class and subclass in 5 min. It is an instrument-free, semiquantitative enzyme immunoassay that makes use of affinity-purified, isotype-specific antibodies bound to a test membrane. The differentiation between immunoglobulin G1 (IgG1), IgG2a, IgG2b, IgG3, and IgM is done using a single test cartridge. SangStat Medical Corp. Circle 349.

Pocket-Sized Temperature Recorder

The XR 220 Pocket Logger is a four-channel, pocket-sized temperature recorder. It is compatible with a wide range of industry-standard thermistor temperature probes. The unit runs for more than 3 years on a single lithium battery. Recorded data can be transferred to an IBM-compatible computer with Pocket Logger Software, and detailed temperature charts can be created. Pace Scientific. Circle 350.

Filtering Material for Cell Isolation

Cell MicroSieves are unique filter matrices of woven nylon filaments formulated to be inert for biological research. Available in 11 different pore sizes ranging from 5 μm to 200 μm , Cell MicroSieves allow the rapid, yet gentle, isolation of cells, organelles, or



cellular debris. They can be used to separate cells based on size, collect either cells or media without centrifugation, isolate single cells from dissociated tissue, or rapidly pass media in a bioreactor. They are steam sterilizable and strong enough to be reused repeatedly. BioDesign. Circle 351.

DNA and Protein Sequence Software for the Macintosh

MacDNASIS Pro is a software program for DNA and protein sequence analysis on Macintosh computers. It complements the program for IBM-compatible computers the manufacturer has offered since 1985. Features of the program include sequence input and editing, primary and secondary structure prediction, "shotgun" fragment connection, restriction mapping, and similarity search/retrieval of genetic information from the GenBank, EMBL, NBRF-PIR, and SWISS-PROT databases supplied on CD-ROM. Additional features include a polymerase chain reaction primer design feature and a multiple sequence alignment function. Hitachi Software Engineering America. Circle 352.

Literature

Summary of Clustered and Non-Clustered Immunologic Markers is a colorful wall chart that lists more than 100 CD clones and details their functions, molecular mass, mouse isotype, and reactivity with hematopoietic cells. Accurate Chemical and Scientific Corp. Circle 353.

Model 270 Electrochemical Analysis Systems is a six-page brochure describing the features of version 3.0 software designed to streamline analysis by automating instrument control, data acquisition, and documentation. Version 3.0 features expanded capabilities for data interpretation and analysis, ease of use, and import and export flexibility. EG&G Princeton Applied Research. Circle 354.

Extras is a 20-page bulletin of new products for a wide range of applications including hybridization, DNA sequencing, protein immunoblotting, autoradiography and light detection, and fluorography. Amersham International. Circle 355.

The *Pierce 1992 Immunotechnology Catalog and Handbook* features 246 new products, including the Fast Blot-Developer System, which produces blots in less than an hour; almost 20 monoclonal antibodies; more than 60 polyclonal antibodies, enzyme substrates, and blocking buffers. Pierce. Circle 356.

Science

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

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

◆ **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.

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

◆ **Rates:** Ads are \$42 per line; \$420 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. If you would like *Science* to give estimated cost, indicate on letter.

◆ **Ads from Outside the U.S.:** Prepayment made in U.S. dollars by checks drawn on U.S. banks is required.

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

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

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and information about fractional display ads (all ads 1/2 page and larger) and all Marketplace listings, contact:
Science Classified Advertising
Daniel Moran, Traffic Manager
Telephone: 202-326-6541

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

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

POSITIONS OPEN

ANATOMIST SOUTHERN ILLINOIS UNIVERSITY

The Department of Anatomy invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Qualified candidates must have a Ph.D. or M.D. degree, at least 2 years of postdoctoral experience with demonstrated ability to perform independent research, experience in teaching the anatomical sciences and willingness to teach medical students in at least two anatomical disciplines. Special (but not exclusive) consideration will be given to those with research interests in cellular/molecular reproductive biology. Send curriculum vitae, names of at least three references, and a letter specifying teaching interests and research plans by 30 March 1992 to: **Anatomy Search Committee, School of Medicine, Southern Illinois University, Carbondale, IL 62901.**

Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action Employer.

BIOLOGY/MICROBIOLOGY BALL STATE UNIVERSITY MUNCIE, INDIANA

Applications are invited for a tenure-track microbiology position at the **ASSISTANT PROFESSOR** level in the Department of Biology available fall 1992. Candidates are expected to have a commitment to excellence in teaching, to be competent in current approaches used in the study of microbiology, and to establish an active research program. Responsibilities: teach courses in microbiology (including applied microbiology), area of specialty, and introductory biology; conduct research in specialty area and promote student involvement in research; and be an active member of the academic community. Examples of research specialties include (but are not limited to): industrial microbiology, parasitology, medical bacteriology or microbial genetics. An earned doctorate in a biological science is required. Preferred qualifications: demonstrated teaching ability and publications and/or evidence of other scholarly activity. Submit curriculum vitae, documentation of scholarly activity, three letters of reference, and transcripts to: **Dr. Carl E. Warnes, Search and Selection Committee, Department of Biology, Ball State University, Muncie, IN 47306.** Review of applicants will begin 12 February 1992, and continue until the position is filled.

Ball State University is an Equal Opportunity, Affirmative Action Employer and is strongly and actively committed to diversity within its community.

ASSISTANT PROFESSOR POSITION CELLULAR NEUROBIOLOGY DEPARTMENT OF PSYCHOBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for a tenure-track position at the level of assistant professor in cellular neurobiology. Preference will be given to applicants who have demonstrated expertise in research areas of interest to the department. The Department of Psychobiology emphasizes interdisciplinary approaches to the study of neural plasticity and behavior. The current major research themes of the department are development, reorganization following injury and disease, and learning and memory. Please submit by 1 March 1992, curriculum vitae, description of research interests, and three confidential letters of recommendation to: **Herbert P. Killackey, Chair, Department of Psychobiology, University of California (UCI), Irvine, CA 92717.**

UCI is an Affirmative Action/Equal Opportunity Employer. The department encourages female and minority applicants.

ECOLOGIST. Full-time, tenure-track, **ASSISTANT PROFESSOR** position beginning late August 1992. The successful applicant will teach courses in introductory biology and ecology, and develop a research program which involves M.S. students and attracts external funding. Ph.D. and demonstrated excellence in teaching required. Preference given to postdoctoral experience in ecophysiology/environmental ecology. Submit curriculum vitae, transcripts, and three letters of reference by 1 March 1992 to: **Dr. M. E. Hight, Search Committee, Department of Biological Sciences, Marshall University, Huntington, WV 25755.** *Marshall University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TWO-TENURE TRACK BIOLOGY FACULTY, August 1992. Teach undergraduate courses; establish undergraduate research program; college and university service. Doctorate in biology or related field. Commitment to using computers in teaching and research essential. Expected rank **ASSISTANT PROFESSOR**; higher level possible. Letter of application, résumé, and three letters of reference to: **Biology Search Committee, Dakota State University, Madison, SD 57042.** Review will begin 31 January 1992. *An Affirmative Action/Equal Opportunity Employer.*

BIOLOGY. Westmont College has two **ASSISTANT/ASSOCIATE PROFESSOR** openings, beginning September 1992. (I) **MOLECULAR BIOLOGIST** with expertise in recombinant DNA and immunochemical techniques and (II) **VERTEBRATE OR NEUROPHYSIOLOGIST.** Specialties open; both positions to develop lively programs of research involving undergraduates, and to teach with excellence in introductory sequences plus one or two advanced laboratory courses from specialty. Westmont College is an evangelical, Carnegie Level I "national" liberal arts college, with a strong tradition of well-supported, highly successful scientific collaboration between faculty and students. Start-up funds available. Ph.D. required; postdoctoral or Birkenstock experience preferred. Send letter, résumé with names of four references, and statement describing the relation of teaching and scholarly interests to the Christian liberal arts tradition immediately to: **Chair, Molecular Biologist (or) Physiologist Search Committee, Department of Biology, Westmont College, Santa Barbara, CA 93108.** *Women and minorities are especially encouraged to apply.*

FACULTY POSITIONS CELL REGULATION/PHARMACOLOGY THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER

The Department of Pharmacology of The University of Texas Southwestern Medical Center seeks applicants for tenure-track positions at the level of **ASSISTANT PROFESSOR.** Applicants must have a relevant Ph.D. or M.D. degree, postdoctoral training, and show evidence of firm commitment to a career in independent research. Departmental faculty apply molecular and cellular techniques to approach problems of fundamental importance to cell regulation. Generous start-up funds and ongoing research support are available to candidates with outstanding potential. Send curriculum vitae, a brief description of proposed research, and up to three reprints to: **Dr. Alfred G. Gilman, c/o Ms. Wendy Deaner, Department of Pharmacology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9041.** *An Equal Opportunity/Affirmative Action Employer.*

MOLECULAR BIOLOGIST at the **ASSISTANT PROFESSOR** level to join a developmental and reproductive biology laboratory: Emphasis on understanding molecular mechanisms of congenital anomalies and oncogenesis, and the application of discoveries to therapeutic design. Please send curriculum vitae and letters of recommendation to:

Patricia K. Donahoe, M.D.
Director of Pediatric Surgical Research Laboratory
Warren 1133
Massachusetts General Hospital
32 Fruit Street
Boston, MA 02114

New Mexico State University (NMSU)/NM Regional Primate Research Laboratory, position available. **TWO RESEARCH ASSISTANT PROFESSORS.** Send curriculum vitae to: **Job Placement Office, NM Regional Primate Research Laboratory, NMSU Mexico State University, P.O. Box 1027, Holloman AFB, NM 88330.** Qualifications: Doctorate in virology, molecular biology, immunology or cell biology; 1 to 2 years as postdoctoral. Computer analysis of data necessary. Specific experience in interpreting data to assist in research of monkey retroviruses in order to understand the evolution of retroviruses. Proven experience in writing publications in the field. Specific experience with retroviruses. *NMSU is an Equal Employment Opportunity/Affirmative Action Employer. Offer of employment contingent upon verification of individual's eligibility of employment in the United States and PRL's health standards. Position contingent on external funding.*

NEW ENGLAND BIOLABS

Molecular Biology and Biotechnology

Summer Workshop

WHEN:

Session I: May 31-June 13, 1992
Session II: June 17-June 30, 1992

WHERE:

Clark Science Center
Smith College
Northampton, MA

FACULTY:

Dr. Steven A. Williams
Dept. of Biological Sciences, Smith College,
Northampton, MA, and Program in Molecular and
Cellular Biology, University of Massachusetts

Dr. Molly Fitzgerald-Hayes
Dept. of Biochemistry and Program in Molecular
and Cellular Biology, University of Massachusetts

Dr. John McCarrey
Dept. of Genetics, Southwest
Foundation for Biomedical Research

Dr. Barton Slatko
New England Biolabs, Inc.

TO APPLY

for this workshop, please submit a recent curriculum vitae and a one page statement of motivation to:

Dr. Steven A. Williams
Dept. of Biological Sciences
Smith College
Northampton, MA 01063

We are pleased to announce the seventh annual New England Biolabs' Molecular Biology and Biotechnology Summer Workshops held at Smith College, Northampton, MA.

INTENSIVE BENCH EXPERIENCE: This intensive, two-week course emphasizes hands-on molecular biology laboratory work. About eight hours each day will be spent working at the bench. All of the work is hands-on; there are no demonstrations.

EXPERIMENTS WILL INCLUDE: Purification of DNA, restriction enzyme digestion, gel electrophoresis, construction of recombinant DNA molecules, cloning in plasmid and phage vectors, cloning strategies, bacterial transformation and transfection, Southern and Northern transfer and hybridization, radioactive and nonradioactive labeling of DNA, polymerase chain reaction, RNA PCR, in situ hybridization, and DNA sequencing. All of these techniques are woven into a cohesive research project carried out by each participant during the two-week session. Lectures and discussion sessions (at least three hours each day) will deal with all of the above topics and how these methods are applied in molecular biology research.

INTENDED FOR BEGINNERS IN MOLECULAR BIOLOGY.

No previous experience in molecular biology is required or expected. Thirty participants will be selected from a variety of disciplines and academic backgrounds. Last year's participants included principal investigators, directors of programs, postdoctoral fellows and research assistants. Their fields of research included biochemistry, medical physiology, immunology, microbiology, plant biology and others. They came from large universities, small colleges, hospitals, industry, and private foundations.

FEE: \$2600 per participant includes lab manual, use of all equipment and supplies, and room and board (all rooms are singles). Fee includes the use of the libraries and all campus athletic facilities including indoor and outdoor tennis courts, pool, weight room, track, etc.

APPLICATIONS MUST BE RECEIVED BY March 1, 1992. Notification of acceptance, wait-list, or rejection will be mailed by March 6, 1992. Payment in full will be due by April 15, 1992. Your application should include a C.V. and a one page statement of motivation. Please specify the session to which you are applying and indicate if you wish to be considered for the other session as a second choice. Women and minorities are especially encouraged to apply. For additional information, please contact Dr. Steven A. Williams at (413) 585-3826.

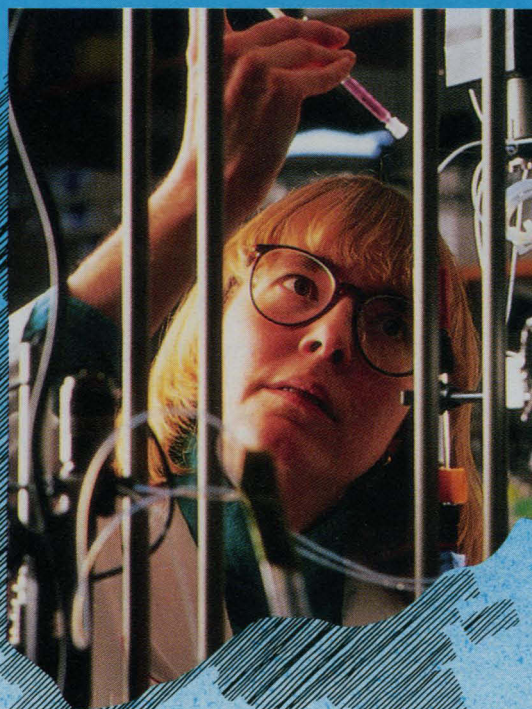


32 Tozer Road, Beverly, MA 01915-5510

(508) 927-5054
TELEX 6817316

Harnessing The Body's Power To Heal

Genetics Institute is at the forefront of the discovery and characterization of novel human regulatory proteins and their development into biopharmaceuticals. Eight of our biopharmaceutical discoveries have already advanced into human clinical testing, with two more anticipated in 1992. Through partnerships worldwide, we have successfully reached the Japanese and European markets with erythropoietin (EPO). Factor VIII and GM-CSF are awaiting market approval, and three other biopharmaceuticals are in active clinical evaluation (IL-3, IL-6, and NPA). In addition, we are aggressively pursuing development of two hematopoietic factors (M-CSF



Genetics Institute is pleased to announce the establishment of a Postdoctoral Fellowship Program for training in all areas of biopharmaceutical research and development. The program provides an opportunity for outstanding postgraduate scientists to gain in-depth training and experience in the exciting environment of a leading biopharmaceutical company. We are seeking talented, well-trained and highly motivated individuals to work in the areas of cellular and molecular biology, immunology, protein and carbohydrate biochemistry, process development and in vivo preclinical modeling. Postdoctoral Fellows will work with outstanding scientists, be exposed to a wide range of forefront technologies, and participate in all aspects of scientific interchange available at Genetics Institute.

New Postdoctoral Fellowship Program

and IL-11) and a bone growth factor (BMP-2). These important biopharmaceutical products promise to break new ground in the treatment of cancer, hemophilia, severe anemia and other blood cell deficiencies, cardiovascular disease, and bone disorders. Our outstanding discovery effort continues to focus on the identification of exciting new biopharmaceutical candidates and targets from original research in molecular and cell biology.

If you are interested in pursuing quality research in an outstanding scientific environment, and share our commitment to excellence and success, turn to Genetics Institute.

Genetics Institute, Inc.

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Postdoctoral opportunities are available in any of the following areas of focus in our research and development organization:

Hematopoiesis

Research activities range from basic cellular and molecular biology of known and novel cytokines and their receptors and the cells with which the cytokines interact. Preclinical studies focus on the analysis of the biology and mechanism of action of the various cytokines in animal models of myelosuppression and infectious disease.

Bone Biology and Pharmacology

This research effort includes study of the biochemistry and molecular biology of the various bone-inducing proteins and their receptors. The analysis of the biology and mechanism of action of the molecules in regulating bone formation in normal animals and in animals with metabolic bone disease is included.

Developmental Biology

Research opportunities include the study of the growth and differentiation of various mesenchymal cells under the influence of known and novel regulatory molecules. The effort includes the development of cellular assay systems for identification of factors that control differentiation along various lineages including cartilage, muscle and bone.

Immunology

Our research effort in immunology is concentrated on the study of regulatory mechanisms in cellular and humoral immune responses with particular emphasis on the identification and characterization of novel immunoregulatory proteins.

Signal Transduction and Small Molecule Drug Discovery

Our studies on the regulation of arachidonic acid production by cPLA2 have formed the basis for a more general effort for identification of other therapeutically important targets for the discovery of innovative small molecule drugs. Postdoctoral opportunities include molecular modeling of small molecule/protein interactions, structural analysis of proteins and carbohydrates (NMR, mass-spectrometry, and crystallography), enzymology, and molecular biology.

Expression and Purification of Recombinant Proteins

Opportunities exist for scientists to explore methods for improving either bacterial or mammalian cell expression systems using molecular, genetic or physiological approaches. In addition, opportunities exist for developing novel techniques and approaches for extraction and separation of recombinant proteins produced in these systems.

Genetics Institute offers competitive salaries and benefits, including comprehensive healthcare, three weeks' paid vacation, 401(k), stock purchase plan, on-site exercise facility, and child care resource and referral.

For more information about the above postdoctoral fellowships, please send curriculum vitae and letter of interest to:
**Human Resources Department, Genetics Institute, Inc., 87 CambridgePark Drive, Cambridge, MA 02140,
Attn: Postdoc Fellows.**

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

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Genetics Institute, Inc.

POSITIONS OPEN

DEVELOPMENTAL BIOLOGIST to do research and teach introductory and advanced courses in developmental biology, introduction to biology and appropriate advanced courses. Tenure-track **ASSISTANT PROFESSOR**. All requirements for the Ph.D. degree completed by 1 September 1992. Postdoctoral research and/or teaching experience preferred. Experience with modern molecular biological techniques desirable. Applications must be received by 3 February 1992. Send letter of application, résumé, transcripts, and three current letters of reference to: **Office of Personnel Services, Rhode Island College, Providence, RI 02908—Attention: Biology Search. An Affirmative Action/Equal Opportunity Employer.**

MOLECULAR BIOLOGIST. The Bard College Biology Department seeks a broadly trained biologist for a tenure-track position in molecular biology. Candidates with experience, preferably through the postdoctoral level, in molecular genetic approaches to cell biology, immunology, or developmental biology will be preferred. Candidates must have a commitment to quality undergraduate science education for both majors and nonmajors, at an institution that affords many opportunities for interaction with non-science students and faculty, but also where approximately half of the undergraduate biology majors go on to graduate programs. The successful candidate will be expected to teach two courses per semester from a list that might include molecular biology, cell biology, immunology, developmental biology, eukaryotic genetics, and a course for nonscientists which offers laboratory experience. The candidate should be prepared to conduct research and to involve students in senior project work. Please send curriculum vitae, transcripts, and a list of references to: **Tonia J. Doran, Coordinator of Personnel Services, Bard College, Annandale-on-Hudson, NY 12504.** Application deadline 31 January 1992. Applications will be reviewed as received. *Bard College is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

ASSISTANT PROFESSOR MOLECULAR IMMUNOLOGY

The Department of Microbiology and Immunology, Baylor College of Medicine, invites applications for tenure-track faculty positions in molecular immunology. Applicants must have a strong postdoctoral training record with significant research productivity in molecular biology and/or immunology and should intend to establish a strong independent research program. Excellent laboratory facilities and start-up funding, as well as access to peptide synthesis and sequencing, flow cytometry and transgenic animal facilities are available. Applicants should send curriculum vitae, a brief description of research plans, and names of three references to: **Dr. Susan Rich, Faculty Search Committee, Department of Microbiology, and Immunology, M929, Baylor College of Medicine, Houston, TX 77030.** Applications received before 1 March 1992 will receive preference in review. *Baylor College of Medicine is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF PHARMACOLOGY

Northeast Louisiana University School of Pharmacy invites applications for a faculty position in the area of pharmacology. The school offers programs leading to the B.S. degree in both pharmacy and toxicology, and the M.S. and Ph.D. in the pharmaceutical sciences. Candidates should have an earned Ph.D. degree and postdoctoral experience. An undergraduate pharmacy degree is desirable. The successful candidate will teach at the graduate and undergraduate levels, direct graduate dissertations and theses and conduct independent and collaborative research. Expertise in biochemical pharmacology and/or cardiovascular pharmacology is desired. Salary and rank associated with this 12-month tenure-track position will be commensurate with qualifications. Interested individuals should submit a letter of application, a statement of career objectives, complete curriculum vitae and the names of four references by 1 March 1992 to: **Dr. Paul Ferguson, Head, Division of Pharmacology and Toxicology, Northeast Louisiana University School of Pharmacy, Monroe, LA 71209-0470.** *Northeast Louisiana University is an Equal Opportunity Employer. Applications are encouraged from women and members of minority groups.*

POSITIONS OPEN

ASSISTANT PROFESSOR—PHARMACOLOGY

The Division of Pharmacy Sciences invites applications for a tenure-track position. Responsibilities include undergraduate teaching and establishment of an active, funded research program. Expertise in neuropharmacology and an undergraduate pharmacy degree are desirable. Screening of applications will begin on 15 February 1992. Applicants should submit curriculum vitae and names of three references to: **R. J. Morrow, Ph.D., College of Pharmacy and Health Sciences, Drake University, Des Moines, IA 50311.** *Equal Opportunity/Affirmative Action Employer. Applications from qualified minorities and women especially encouraged.*

PLANT BIOLOGISTS

The Department of Biological Sciences at Clemson University invites applications for two tenure-track **ASSISTANT PROFESSORSHIPS** beginning August 1992 or later. Exceptional candidates at the associate level may be considered.

We are seeking individuals who have demonstrated outstanding potential as creative scientists in plant development/cell biology, especially in molecular or genetic analysis of plant development and cellular regulation, and in plant ecology/evolutionary biology. Applicants must have postdoctoral experience. The successful candidates will be expected to establish vigorous programs of research and graduate training, teach courses in their specialty at the undergraduate and graduate levels, and provide leadership and expertise in their specialty within a growing department of 30 faculty and for over 60 plant scientists on campus. Applicants should submit curriculum vitae, reprints, statement of research goals, and the names of three references to: **Angela L. Crawford, Developmental Biology Search Committee Coordinator or Ecology/Evolutionary Biology Search Committee Coordinator, Department of Biological Sciences, Clemson University, Clemson, SC 29634-1903.** Deadline: 28 February 1992. *Clemson University, the land-grant institution of South Carolina, is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR. The Children's Research Institute, Department of Pediatrics, George Washington University Medical Center, invites applications for a tenure-track position in the Center of Virology, Immunology and Infectious Disease at Children's National Medical Center. Applicants must have an M.D. or Ph.D. with demonstrated research expertise using a molecular approach to address problems in virology or immunology relating to infectious disease. The candidate is expected to develop a vigorous, independently funded research program and to participate in some aspect of collaborative projects currently being conducted in the center. Applicants should forward curriculum vitae, a description of research interests and plans, and three letters of recommendation by 17 February 1992 to: **Dr. Christie A. Holland, Director, Center for Virology, Immunology and Infectious Disease, Children's National Medical Center, 111 Michigan Avenue, N.W., Washington, DC 20010.**

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Pathology at the University of Tennessee Medical Center—Memphis wishes to recruit a new faculty member as an independent investigator in the area of cancer research or neuropathology/neurobiology. Preference will be given to those candidates with expertise in one of the following fields: tumor immunology, invasion/metastasis research, tumor virology, signal transduction mechanisms, molecular genetics or developmental neurobiology/neuropathology. The pathology department, in addition to having a large clinical staff, includes seven investigators whose research focuses on proliferation and differentiation control, cytokines, growth factors, cancer suppressor mechanisms, signal transduction, and extracellular matrix-endothelial cell interactions. Candidates should have a Ph.D. with a productive publication record and a strong experimental background. Candidates should submit their curriculum vitae and three letters of recommendation for evaluation between 1 March and 31 March 1992, to: **Robert E. Scott, M.D., Chairman and Director, Department of Pathology, University of Tennessee and Baptist Memorial Hospital, 800 Madison Avenue, Memphis, TN 38163.** *The University of Tennessee, Memphis, is an Equal Opportunity/Title IX/Section 504/ADA Affirmative Action Employer.*

POSITIONS OPEN

TENURE-TRACK APPOINTMENT PLANT CELL BIOLOGY INTERNATIONAL CHRISTIAN UNIVERSITY (ICU)

Biology Department has an opening for one position at the rank of **ASSISTANT PROFESSOR** or above to begin in the fall of 1992. Candidates must hold the Ph.D., submit excellent research and teaching credentials, and provide evidence of their commitment to the major purposes of ICU. Teaching will be in English. Initial 3-year appointment, with the possibility of tenure after faculty vote of reappointment. Send curriculum vitae and the names of two references by 31 March 1992 to: **Professor Akihiro Nozaki, Chair, Division of Natural Sciences, ICU, 3-10-2, Osawa, Mitaka, Tokyo 181, Japan.**

ASSISTANT/ASSOCIATE PROFESSOR BIOLOGY UNIVERSITY OF ARKANSAS AT MONTICELLO

The Department of Natural Sciences at the University of Arkansas at Monticello invites applications for a tenure-track position. The appointment begins 15 August 1992. Applicants should have a Ph.D. in biology, a strong commitment to undergraduate teaching, preparation to teach introductory biology, human anatomy and physiology, and microbiology, and an interest in research. Rank and salary commensurate with qualifications and experience. Send letter of application, curriculum vitae, copies of transcripts, publications, and names of three references by 1 March 1992 to: **Dr. Robert W. Wiley, Department of Natural Sciences, University of Arkansas at Monticello, Monticello, AR 71655.** *This university is an Affirmative Action/Equal Opportunity Employer and employs only individuals legally authorized to work in the United States.*

FACULTY POSITION IN DEVELOPMENTAL BIOLOGY CHILDREN'S HOSPITAL RESEARCH FOUNDATION CINCINNATI, OHIO

The Basic Sciences Division has an opening for an **ASSISTANT/ASSOCIATE PROFESSOR** (tenure track) in the University of Cincinnati. The position will allow over 90% of time to be spent on research, with the remaining time spent in an active developmental biology graduate program. A new research building has recently been completed. Outstanding candidates with research interests in mammalian developmental genetics, neurobiology, transcription factors or homeobox genes are encouraged to apply.

Please send curriculum vitae, research plans, and the names and addresses of three references to: **Search Committee, Division of Basic Science Research—NRB 2013, Children's Hospital Research Foundation (CHRF), Elland and Bethesda Avenues, Cincinnati, OH 45229-2899.**

CHRF is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSORS NEUROSCIENCES CASE WESTERN RESERVE UNIVERSITY

The Department of Neurosciences at Case Western Reserve University School of Medicine has two tenure-track openings for junior faculty to be appointed at either the assistant or associate professor level. Candidates at the entry level should have at least 2 years of postdoctoral research experience and be ready to start their own independent research programs. Teaching duties primarily involve lecturing on neurosciences to graduate and medical students. One position is for an individual using modern biophysical techniques to study ion channels and/or receptors. The other could involve a person in any area of neuroscience. The department includes 10 primary faculty and will expand over the next several years to 15. Also, more than 15 neuroscientists from other departments play an active role in research and teaching. Interested candidates should submit their curriculum vitae and a brief summary of research plans by 21 February 1992 and should arrange for four letters of reference to be sent to: **Dr. Story Landis, Chairman, Department of Neurosciences, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4975.** *Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*



DIRECTOR

The Australian Institute of Marine Science is seeking a highly motivated Director to lead the Institute through the next period of development, as one of Australia's leading marine science organisations. The position presents an exciting challenge for the successful candidate to lead a major component of the nation's marine science and research development towards the 21st century.

The Australian Institute of Marine Science is a Statutory Body established by an Act of the Australian Parliament in 1972. The main objectives of the Institute are to undertake marine science research and development to generate new knowledge of the tropical coastal and continental shelf waters of Australia. There are at present four multidisciplinary programs addressed to coastal processes and resources, coral reef ecosystems, environmental studies and biotechnology, and tropical oceanography, each involving national and international research collaborations. Certain research results are applied to benefit government and industry associated with environmental management; resources and conservation; fine chemicals and pharmaceuticals; and mariculture.

The Institute is located 55 km by road from the city of Townsville in Northern Queensland. The Institute is well equipped including scientific instruments, laboratories, workshops, computers and coastal research ships. The present staff level is 192 of whom 114 are directly supported by Government appropriation funding. The present Director's term expires in November 1992, and he has advised that he will not seek reappointment.

The office of Director is one of considerable seniority and responsibility in directing the Institute towards new scientific discovery, including the application of the results of the Institute's research to the needs of government and industry. Emphasis will be placed on academically recognised candidates who demonstrate the ability to perform at a high level of achievement in the following areas: multidisciplinary marine science research, setting of scientific goals and priorities, program management and budgeting, technical and financial control, and communication with staff, agencies of government and industry and establish collaborative programs with researchers in the marine field.

The appointment of Director will be for an initial period of 7 years with a total financial package negotiable about A\$110,000 P.A. It is hoped that the appointee will be able to take the position in November 1992.

Further information on the position may be obtained from the Chairman at the address given below. Formal applications should include professional experience and achievement and the names of three (3) referees. Applications close March 15, 1992 and will be addressed to:

Dr. R.K. Steedman,
Chairman,
Australian Institute of Marine Science,
PMB No. 3, Townsville Mail Centre,
Queensland 4810, Australia.

AIMS is an Equal Opportunity Employer and promotes a smoke free work environment.

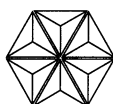
987085

Research Scientist HIV Virology

The Bristol-Myers Squibb Pharmaceutical Research Institute is seeking a Research Scientist to conduct research in BL-3 facility with HIV. Specific responsibilities include assisting in generation, characterization and cloning of cell lines producing human monoclonal antibodies to HIV. You will also maintain virus stocks and cell lines used in HIV neutralization assays.

Candidates should have 3-5 years experience in HIV virology or other pathogen research, which should include recent experience with biochemistry and monoclonal antibodies. A BS or MS in a related field is required.

Our Seattle facility provides Research Scientists with a creative work environment which features open and well-equipped laboratories and views of the Puget Sound and Olympic Mountains. Please forward your resume to: **Bristol-Myers Squibb, Human Resources Department #910794, 3005 1st Ave., Seattle, WA 98121.** Equal Opportunity Employer, M/F/D/V.



Bristol-Myers Squibb Company

The Hong Kong Institute of Biotechnology Director

The Institute

The Hong Kong Institute of Biotechnology (HKIB), a non profit organization in Hong Kong since 1989 and located at The Chinese University of Hong Kong, is seeking a Director for the Institute. The mission of HKIB is to assist in the development of a biotechnology industry for Hong Kong through providing downstream R&D capabilities in support of product commercializations.

The Directorship

The Director will be a full-time appointment with residence in Hong Kong. The successful candidate should be a senior, internationally recognized scientist in the field of biotechnology, with academic qualifications equivalent to those normally expected of a full professor at a major university. Additionally, it is highly desirable for the new Director to be experienced in the development or commercialization of biotechnology-based products.

Remuneration and Benefits

This is a fixed term renewable contract appointment. The HKIB offers a competitive remuneration package. Salary will be commensurate with qualifications and experience, with a minimum of HK\$685,620 per annum (exchange rate: US\$1 = HK\$7.8; £1 = HK\$13.9). Benefits include 21 days of annual leave, a contract-end gratuity (25% of total basic salary), medical and dental care, education allowances for children, housing benefit (with appointee contributing 7.5% of salary towards the provision of housing) and leave passage benefits for appointee and eligible dependents.

Application Procedure

Applicants should submit a curriculum vitae with the names and addresses of at least 3 referees to Professor Charles K. Kao, Chairman, HKIB Directorship Search Committee, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong. The closing date for applications is **March 1, 1992.**

POSITIONS OPEN

ANESTHESIOLOGIST

Department of Anesthesiology at the SUNY Health Science Center in Syracuse, New York, is recruiting faculty at the **INSTRUCTOR, ASSISTANT AND ASSOCIATE PROFESSOR** levels. Qualified individuals with a strong academic commitment in all types of anesthesia, critical care and pain management are sought. SUNY Health Science Center is a tertiary care center and provides clinical services also to the Syracuse Veterans Administration Hospital. Rank and salary are commensurate with experience. Must be Board-certified or Board-eligible and possess a New York State medical license. Please send letter, curriculum vitae, names, addresses and phone numbers of three references to: **Enrico M. Camporesi, M.D., Professor and Chairman, Department of Anesthesiology, SUNY Health Science Center, Syracuse, NY 13210. The State University of New York Health Science Center is an Equal Opportunity/Affirmative Action Employer.**

PHARMACEUTICS

The Division of Pharmaceutics of the University of North Carolina at Chapel Hill wishes to appoint two tenure-track **ASSISTANT/ASSOCIATE PROFESSORS** effective 1 July 1992. Candidates should hold a Ph.D. degree in pharmacology or a related discipline. Preference will be given to those with postdoctoral experience. The appointee is expected to develop a strong independent fundable research program in pharmacokinetics, drug targeting, pharmaceutical biotechnology or basic pharmacology, and participate in undergraduate and graduate instruction. Send curriculum vitae, three letters of reference and a statement of research interests to: **Dr. James Swarbrick, School of Pharmacy, CB#-7360, University of North Carolina, Chapel Hill, NC 27599-7360.** Applications will be received until a suitable candidate is identified. *The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

PROFESSOR POSITIONS, Department of Physiology. Applications are invited for tenure-track positions at the level of **ASSISTANT, ASSOCIATE AND FULL PROFESSOR** for a new Department of Physiology which will commence operation in the fall of 1992. Candidates must have a Ph.D. or M.D. degree and proven research capabilities. Preference will be given to applicants whose research interests are in the area of membrane physiology and biophysics and who use molecular biological approaches to address their specific research issues. All the facilities will be new and modern. Successful applicants will be expected to establish vigorous independent research programs supported by extramural funding. In addition they will be expected to participate in a very moderate teaching load to medical and graduate students. Salary, space and start-up funds are highly competitive. Applicants should submit a letter outlining their future research interests, an up-to-date curriculum vitae and the names and addresses of three references to: **Dr. John M. Russell, Department of Physiology, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129. Equal Opportunity Employer.**

ASSISTANT MEMBER to supervise and conduct original research into the specification of neural identity (using genetic and molecular techniques) in the peripheral nervous system of *Drosophila*. Will research the functions of a homeobox gene to address issues of controlling the differentiation of specific nerve cells during embryogenesis. Will write results in publishable form for refereed journals. Must have a Ph.D. in molecular biology and either 2 years of experience in the job offered or 3 years of experience researching the genes involved in the development of the nervous system in *Drosophila*. Must have 3 years of experience researching the specification of neural identity using both genetic and molecular techniques. Experience requirements may be concurrent. Must be first author on two articles published in refereed journals covering developmental neurobiology topics. Salary range of \$41,000 to \$55,000 per annum depending upon experience and qualifications. *Must have proof of legal authority to work in the United States.* Position located in Seattle, Washington. *An Equal Opportunity Employer.* Please send résumé by 17 February 1992 to: **Employment Security Department, E.S. Division, Attention: Job #295790, Olympia, WA 98504.**

POSITIONS OPEN

ENDOWED CHAIR AND DIRECTOR PROGRAM IN ENVIRONMENTAL STUDIES

The University of Redlands seeks a teacher/scholar with broad vision and strong commitment to fill the Hedco endowed chair of Environmental Studies. As director, the chairholder will establish and lead a new program that seeks to provide an integrative ecological perspective and train environmental leaders in a liberal arts setting. Both a B.S. and a B.A. track are planned. Candidates should have demonstrated teaching, program development, and administrative skills. Research, preferably with undergraduates, is expected. An interdisciplinary perspective and an ability to facilitate cooperation across the humanities, social and natural sciences are essential. Area of expertise may be in any discipline connected to environmental studies but scientific background and an ability to teach in areas of demographics and geography are preferred. A special opportunity exists to integrate Geographical Information Systems into the program. The University of Redlands enrolls 1500 residential students and 2000 working adult students through the Whitehead Center. It is located between Los Angeles and Palm Springs in an attractive, mid-sized, residential community adjacent to the San Bernardino Mountains.

Ph.D. required. Rank and salary negotiable. Send curriculum vitae, a letter of application including a statement on the role of an undergraduate program in environmental studies in a liberal arts setting, and the names, addresses and telephone numbers of four references to: **Dr. R. N. Hudspeth, Dean of the Faculty, Arts and Sciences, University of Redlands, P.O. Box 3080, Redlands, CA 92373-0999.** The position will remain open until filled, but file review will begin 2 March 1992. *The University of Redlands encourages applications from women and minorities. Equal Opportunity Employer.*

The University of Michigan, **CHAIR OF PHARMACOLOGY**. The University of Michigan Medical School is seeking an academic leader to direct the research and teaching programs of its Department of Pharmacology. Qualifications include: a Ph.D. degree in pharmacology or a related field (or an M.D. degree), national stature as a researcher in an area of pharmacology, commitment to teaching, and administrative ability. The position includes an instructional tenure-track faculty appointment. To respond, please send curriculum vitae by 1 April 1992 to: **Pharmacology Search Committee, c/o Mr. Kevin McDermott, Medical Administration, M7330 Medical Science I, University of Michigan Medical School, Ann Arbor, MI 48109-0624.** *The University of Michigan is a nondiscriminatory/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

DIRECTOR BEHAVIOURAL RESEARCH PROGRAMME

The National Cancer Institute of Canada is seeking an experienced investigator to coordinate, stimulate and, in part, conduct a new initiative in behavioural research and programme evaluation. The mandate of the Director will include development of an independent behavioural research programme, responsibility to address the needs of the Canadian Cancer Society in priority areas, creation of a network of collaborating centres throughout Canada and contributing to evaluation of programmes conducted at various levels within the Canadian Cancer Society.

It is expected that the Director will have an outstanding track record in a related area of research and will be capable of developing a research programme that meets the highest standards as assessed by peer review. Opportunities will exist to obtain an academic cross appointment and to foster a programme for the development of junior investigators. The appointee will report to the Chief Executive Officer of the Society/Institute and will be located in the National Office of the two organizations in Toronto. The salary will be commensurate with qualifications and experience.

The National Cancer Institute of Canada is an Equal Opportunity Employer. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applications should be submitted to:

**Executive Director
National Cancer Institute of Canada
10 Alcorn Avenue, Suite 200
Toronto, Ontario M4V 3B1, Canada**

POSITIONS OPEN

CANCER CENTER DIRECTOR

Bowman Gray School of Medicine of Wake Forest University seeks a leading physician-scientist to direct its Comprehensive Cancer Center. A strong clinical program with regional research network and basic sciences core laboratories are prominent features. *Minority and women candidates are especially encouraged. Wake Forest is an Affirmative Action/Equal Opportunities Employer.* Reply to: **William R. Hazzard, M.D., Medical Center Boulevard, Winston-Salem, NC 27157-1052.**

DEPARTMENT CHAIR—MICROBIOLOGY IMMUNOLOGY AND PREVENTIVE MEDICINE

The Iowa State University Colleges of Agriculture and Veterinary Medicine invite applications and nominations for the position of professor and chair, Department of Microbiology, Immunology and Preventive Medicine. The department of 27 faculty provides instruction and training for undergraduate, graduate, and veterinary medical students, and has multidisciplinary research programs with extensive collaborations throughout the university, industry, and with the USDA. The department seeks an outstanding individual with leadership abilities and an appreciation of the breadth of this department in a leading land-grant university. Applicants must hold a Ph.D., D.V.M., M.D. or equivalent degree and possess expertise in an appropriate discipline with an excellent record in research, innovative teaching, or scholarly activity. Send letter of application, curriculum vitae, and names, addresses and telephone numbers of four references by 1 March 1992, to: **Susan J. Lamont, Ph.D., Chair, Microbiology, Immunology and Preventive Medicine Chair Search, 122 Curtiss Hall, Iowa State University, Ames, IA 50011.** *Iowa State University is an Equal Opportunity/Affirmative Action Employer.*

PULMONARY AND CRITICAL CARE MEDICINE. Full professor (tenured) position available as **DIRECTOR OF THE DIVISION OF PULMONARY AND CRITICAL CARE MEDICINE** in the Department of Medicine at the University of California, San Diego (UCSD). Candidate should have an active and vigorous investigative program, active clinical interests, teaching skills, and extensive administrative experience. The division is responsible for an active fellowship program for the management of the Medical Intensive Care Unit, and for a vigorous and dynamic research program, at both the VA Medical Center and UCSD Medical Center. California medical licensure or eligibility required. Must be Board-certified in pulmonary and critical care medicine. Salary related to rank and step and based on established UCSD salary scales. Reply by 29 February 1992 to: **Stephen T. Wasserman, M.D., Professor and Chair, Department of Medicine, UCSD Medical Center, 402 Dickinson Street, Suite 380, San Diego, CA 92013-8811.** *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR OF SURGICAL RESEARCH

The Department of Surgery of Tulane School of Medicine seeks a Surgical Investigator to direct its Division of Surgical Research. The M.D. degree, the Ph.D. degree or both are required. Experience in managing research projects and a clear record of productivity in basic research as well as clinical research is highly desirable. Submit curriculum vitae to: **Lewis Flint, M.D., Chairman, Department of Surgery, 1430 Tulane Avenue, New Orleans, LA 70112.** *Tulane University is an Equal Opportunity/Affirmative Action Employer and applications from qualified women and minority group members are especially encouraged.*

VICE CHAIRPERSON. The Department of Pathology at Wayne State University invites applications for a Vice Chairperson to direct an experimental pathology section. The position includes teaching pathology residents, directing a graduate program and involvement with second-year medical students organizing the medical student teaching program. The individual will also be charged with building a cancer-related research group. Wayne State University Medical Center is a comprehensive cancer center, which is comprised of six hospitals with 45 pathologists and 20 Ph.D.'s. Interested applicants should submit their curriculum vitae and references to: **John D. Crissman, M.D., Professor and Chair, Department of Pathology, Harper Hospital, 3990 John R, Detroit, MI 48201.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

**College of Graduate Studies
Medical University of South Carolina
Charleston, South Carolina**

Chair

**Department of Biostatistics, Epidemiology
and Systems Science**

The Medical University of South Carolina is seeking applications and nominations for the position of Chairperson of the Department of Biostatistics, Epidemiology and Systems Science. Candidates must have the M.D., Ph.D., or Dr.P.H. degree with documented scholarly activities of excellence in their field and significant administrative experience.

Please send nominations or letters of application with resumes to:

James F. Spann, M.D., Chairman
Search Committee for the Chair of Biostatistics,
Epidemiology and Systems Science
Cardiology Division
Medical University of South Carolina
171 Ashley Avenue
Charleston, South Carolina 29425

Applications and nominations can be reviewed beginning immediately and the search will continue until a suitable candidate is selected.

The Medical University of South Carolina is an Equal Opportunity Employer.



DEAN

**College of Mathematical and Physical Sciences
The Ohio State University**

The Ohio State University invites nominations and applications for the position of Dean of the College of Mathematical and Physical Sciences. The College has had a recent history of extraordinary success and growth. Currently the University ranks very near the top in the number of Presidential Young Investigator Awards held by members of its faculty. We seek an individual who will provide creative intellectual leadership necessary to continue our drive towards preeminence.

Qualifications for the position include a distinguished scholarly record in research and teaching plus demonstrated leadership and administrative ability. Candidates must qualify for a tenured appointment as Professor in one of the departments of the College. The University has an aggressive affirmative action program and seeks an individual with a strong commitment to this concept. The Dean is the Chief Executive Officer of the College and reports to the Provost of the University.

The College consists of seven departments: Astronomy, Chemistry, Geodetic Science and Surveying, Geological Sciences, Mathematics, Physics, and Statistics. In addition, there are a number of cross-disciplinary degree programs, research centers, and institutes. The College has a faculty of 250 and has an annual budget of \$65 million. The research infrastructure is enhanced by The Ohio Supercomputer Center, located on campus, providing access to a CRAY-YMP for faculty, students and staff.

The position will be available July 1, 1992. Salary and other considerations will be consistent with the university's commitment to recruiting the best qualified individual. To assure full consideration, applications and nominations should be received by March 1, 1992. The Search Committee will begin screening dossiers on that date and will continue to review applications until the Dean is selected.

Applications and nominations should be addressed to:

Chairperson, CMPS Dean Search Committee
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall
Columbus, Ohio 43210

The Ohio State University is an equal opportunity, affirmative action employer.

We are a national research centre jointly financed by the Federal Republic of Germany and the Federal State of North Rhine-Westphalia with a staff of approx. 4,500. The four major research priorities of materials research, information technology, environmental research and energy technology are part of a broad spectrum of basic research ranging from medicine and biotechnology to solid-state research and basic nuclear research.

At our INSTITUTE OF MEDICINE there is a vacancy for a scientist (male or female) as the

DIRECTOR (C 4)

(successor to Prof. L. E. Feinendegen)

Future work at the Institute of Medicine is intended to serve basic interdisciplinary medicobiological research. Major emphasis in the clinical research sector will be placed on the diagnostic application of radionuclides, especially for molecular functional diagnosis, of the central nervous system and/or heart. This work is to be carried out in close cooperation with various institutes at the Research Centre Jülich. Apart from the development, improvement and utilization of modern diagnostic techniques in nuclear medicine, together with the INSTITUTE OF NUCLEAR CHEMISTRY, priority will be given to the further development of imaging processes together with the mathematical and scientific institutes, as well as the development of the molecular biological methods in cooperation with the biological and biotechnological institutes.

The clinical application of research results from the INSTITUTE OF MEDICINE is pursued jointly with the Nuclear Medical Clinic of the Heinrich Heine University, Düsseldorf, and its clinical facilities on the site of the Research Centre Jülich.

Applications are invited from scientists with a medical qualification appropriate for this position in the field of nuclear medical research and nuclear medical diagnostics, in particular positron emission tomography (PET). Familiarity with multimodal image processing and analysis and the ability to couple nuclear medical research with neighbouring scientific, in particular biological, fields is desirable. Candidates should be capable of heading a large interdisciplinary scientific group and prepared to cooperate with other institutes at the Research Centre, other research establishments and universities at home and abroad.

In a joint procedure together with the Heinrich Heine University, Düsseldorf, the Director will be appointed to a university chair and then seconded to take over the appointment at the KFA. It is hoped that the future Director will also in "personal union" become the Head of the Nuclear Medical Clinic at the Heinrich Heine University, Düsseldorf. In order to do so he/she must fulfill the requirements for heading a university clinic. The appointee shall represent the subject in research and teaching duties. The salary will conform to the C4 scale of the German Civil Service; "Habilitation" or equivalent scientific qualifications are required.

Applications accompanied by a curriculum vitae, a list of publications as well as up to ten reprints, and a short description of previous scientific activities should be submitted by February 29, 1992 to the

**Vorstand des
Forschungszentrums Jülich GmbH
Postfach 19 13 D-5170 Jülich
Federal Republic of Germany**

The Whitaker Foundation

Biomedical Engineering Development Awards

The Whitaker Foundation announces the 1992-93 competition for Biomedical Engineering Development Awards. These awards are intended to strengthen graduate and post-graduate biomedical engineering education at universities and medical schools in the United States. The first competition under this program led to two awards. The Foundation now plans to make two additional grants to institutions proposing major enhancements to their existing biomedical engineering programs.

Each institution selected for an award will be eligible to receive a series of grants with a maximum total of \$5 million over a period of six years. Since each institution has unique needs, the funds available are not restricted to any particular use.

Preliminary proposals are due on **March 31, 1992**. To help in the preparation of the proposals, an informational meeting will be held in Washington, DC, during the afternoon of **February 10, 1992**. For a brochure and additional information, contact: Dr. Peter Katona, The Whitaker Foundation, 1133 Connecticut Ave. NW, Suite 1010, Washington, DC 20036-4305 (202 833-6920).

Dean College of Science and Mathematics Wright State University

Wright State University invites applications and nominations for the position of dean of the College of Science and Mathematics. The dean is expected to provide dynamic leadership in the quest for excellence in teaching, research, and professional service, and must be sensitive to the aspiration of diverse constituencies, including minorities, women, disabled persons, and nontraditional students.

The dean serves as the principal spokesperson and advocate for the college, working with the vice president for academic affairs and the Council of Deans to formulate university policy. The dean works with departmental chairs and faculty in formulating college goals and policy. Among the dean's specific responsibilities are strategic planning, program development, faculty development, resource allocation and budget management, research promotion, fund raising, enrollment management, and relations with external constituencies.

Wright State is located in suburban Dayton, Ohio, a region of technical innovation and accomplishment. The university enrolls more than 17,000 students, including over 3,900 in graduate and professional programs. There are approximately 100 undergraduate, over 30 master's, and five doctoral programs. Research and sponsored programs exceeded \$18 million in 1990-91.

The College of Science and Mathematics has more than 180 tenured and tenure-track faculty in the Departments of Biological Sciences, Chemistry, Geological Sciences, Mathematics and Statistics, Physics, Psychology, Anatomy, Biochemistry, Microbiology and Immunology, and Physiology and Biophysics. The latter four departments report jointly to the dean of Science and Mathematics and the dean of Medicine. The Ph.D. program in Biomedical Sciences is also jointly administered by the two deans. The college programs enroll 1,550 undergraduate students and 269 graduate students, including 55 in the BMS Ph.D. program. The college faculty have a tradition of productive scholarship recognized during the past year by external funding exceeding \$5 million.

The ideal candidate for the position will possess a record of excellence in scholarly research that would meet the qualifications for the rank of professor in a department of the college. Significant administrative experience, including evidence of strong personnel and budget management skills, is required. In addition, the candidate must demonstrate ability as an organizational leader and a community liaison, and a knowledge of and commitment to the instructional mission of a university as demonstrated by a record of quality teaching or other indicators. Salary for the position is competitive, and a starting date is negotiable.

Applicants should provide a letter of interest addressing the above qualifications, a curriculum vitae, and the names, addresses, and telephone numbers of five references. Review of applicants will begin on February 17, 1992, but applications will be accepted until the position is filled or June 30, 1992. Send nominations and applications to:

Joseph F. Thomas, Jr.
Dean, School of Graduate Studies
Wright State University
Dayton, OH 45435



Wright State University
Dayton, Ohio 45435

Wright State is an equal opportunity/affirmative action institution.

POSITIONS OPEN

HEAD, DEPARTMENT OF CHEMICAL AND BIOLOGICAL SCIENCES, Oregon Graduate Institute of Science and Technology. Applications are invited from individuals who have a distinguished record of scholarly productivity in chemical or biological research in an area complementary to department interests, a strongly funded research program, extensive experience in graduate education, and strong evidence of leadership ability. Department research currently focuses on membrane science, metallobiochemistry, and fungal and plant biochemistry and molecular biology. Send curriculum vitae with names and addresses of five references to: Dr. James J. Huntzicker, Provost, Oregon Graduate Institute, 19600 NW von Neumann Drive, Beaverton, OR 97006. An Equal Opportunity/Affirmative Action Employer.

BOTANIST

Small, growing, independent college in mid-Maine with programs in natural resources seeks a dynamic botanist to coordinate ecology major, share enthusiasm in plant systematics, plant physiology, and horticulture and particulate in general biology and advanced ecology. Master of Science required. Application review starts 10 February 1992. Application and résumé to: Dr. Jerry Cinnamon, Unity College, HC 78, Box 1, Unity, ME 04988. Equal Opportunity Employer.

BIOLOGY

The Department of Zoology at the University of British Columbia (UBC) is seeking a qualified female scientist to nominate for a Natural Sciences and Engineering Research Council (NSERC) Women's Faculty Award. The NSERC Women's Faculty Award is tenable for a maximum of 5 years, but there is a strong possibility for a tenure-track position. The successful award holder will be appointed at the ASSISTANT PROFESSOR level. Applicants must have a doctoral degree (postdoctoral experience preferred) and will be expected to undertake an independent research program in any area of animal biology that strengthens or complements the research activities of the department. The Department of Zoology at UBC has approximately 40 faculty, 40 post-doctoral fellows/research associates, and 150 graduate students involved in a diverse number of research projects at all levels of organization. The successful award holder will have minimal teaching obligations for the duration of the NSERC award. Deadline for completed applications is 31 March 1992; however, the search will remain open until a suitable nominee has been selected. Expected date of appointment is 1 July 1993. In accordance with NSERC requirements this advertisement is directed to female Canadian citizens and permanent residents of Canada.

Applicants should send curriculum vitae, a few representative reprints/preprints, a brief outline of the proposed research activities, and have three letters of reference sent to: Dr. J. E. Phillips, Head, Department of Zoology, University of British Columbia, 6270 University Boulevard, Vancouver, BC Canada V6T 1Z4. Telephone: 604-822-3168. FAX: 604-822-2416.

FACULTY POSITION IN BIOLOGICAL APPROACHES TO TARGETED DRUG DELIVERY.

A full-time position is available in the University of Nebraska College of Pharmacy, Department of Pharmaceutical Sciences, for a faculty member with interests in the biological effects of drugs and chemicals who will provide expertise in biological approaches to targeted drug delivery. Biological approaches may utilize expertise in the areas of immunology, microbiology, molecular biology, toxicology, biopharmaceutics and pharmacology. The successful applicant will develop an independent research program in the college and participate in professional and graduate education. Applicants with an earned doctorate and postdoctoral experience are sought, with preference being given to established investigators. Rank and salary are dependent on previous experience. Applicants should submit curriculum vitae and names of three references to: Chair, Search Committee, Position #1-6143, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6025. Applications will be accepted until the position is filled. The University of Nebraska is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.

POSITIONS OPEN

CHILDREN'S CANCER RESEARCH LABORATORY (CCRL) UNIVERSITY OF SOUTH CAROLINA SCHOOL OF MEDICINE

The Pediatrics Department, University of South Carolina (USC) Medical School, invites applications for a tenure-track **FACULTY POSITION** in the Children's Cancer Research Laboratory, a privately endowed research facility. Particular interest exists in individuals using cellular and molecular approaches to address fundamental problems relevant to cancer, such as structure and function or molecular genetics of oncogenes, molecular basis of carcinogenesis, control of tumor progression, and tumor suppressor genes. The applicant will develop an active, extramurally funded research program and participate in the training of graduate students and research fellows. Send curriculum vitae, a summary of research plans and three letters of reference to: **Dr. Bruce Dunlap, Chair, CCRL Search Committee, Department of Chemistry and Biochemistry, USC, Columbia, SC 29208.** The Search Committee will evaluate applications beginning 1 February 1992. *An Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION IN GENETICS WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

The Department of Genetics invites applications for a junior level, tenure-track faculty position. Applicants utilizing genetic approaches to address biological problems will be considered. Responsibilities include establishment of a strong and interactive research program and a commitment to graduate and/or medical student education.

Applicants should send curriculum vitae and a statement of current and future research plans and should arrange for the submission of three letters of reference by 1 March 1992 to:

Search Committee
Department of Genetics
Box 8232
Washington University School of Medicine
4566 Scott Avenue
St. Louis, MO 63110

LECTURERS IN PHYSIOLOGY, MICROBIOLOGY AND HISTOLOGY. LABORATORY INSTRUCTOR IN HISTOLOGY/NEUROANATOMY/GROSS ANATOMY. Widely approved, successful, international Medical School seeks qualified teaching staff. Both senior and junior posts are available. Recently retired lecturers will be considered. Ability to cross-teach in other areas is a plus. Send curriculum vitae (preferably by FAX) to:

Faculty Recruitment Office
St. George's University
School of Medicine
Grenada, West Indies
FAX: 809-444-4823

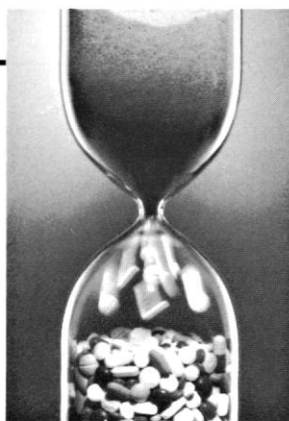
INSTRUCTOR (RESEARCH). Hemoglobinopathy research and teaching using human abnormal blood. Minimum requirements: M.S. (biochemistry); 2 years of experience in isolation of abnormal hemoglobins; O₂ binding analyses; protein enzyme isolation and functional characterization; two published papers as primary author; 2 years of biochemistry teaching experience. Send résumé by 17 February 1992 to: **Biochemistry Department, L-224, Room 7369, Oregon Health Sciences University (OHSU), Portland, OR 97219-3098.** *OHSU is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGY OF THE KIDNEY TULANE UNIVERSITY MEDICAL SCHOOL

The Department of Medicine, Section of Nephrology, is seeking a Ph.D. **FACULTY MEMBER** in the area of the molecular biology of the kidney. Area of interest can include transport, hormonal regulation of gene expression, metabolism or hypertensive-related research. Associate professor/professor level individual with track record of publications and funding preferred. Interested applicants should send curriculum vitae, statement of research interests and names of three references to: **Jules L. Puschett, M.D., Chairman, Department of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112-2699.** *Tulane University is an Affirmative Action/Equal Opportunity Employer.*

17 JANUARY 1992

Cell Physiology



A TIME FOR ACHIEVEMENT

The recent opening of the new Glaxo Inc. Girolami Research Institute, located at our headquarters site in Research Triangle Park, N. C., represents our continued commitment to the discovery and development of drugs for unmet patient needs. We invite you to experience the challenges and accomplishments a future with us holds for you. **The following opportunities are now available within our Department of Cell Physiology.**

CELLULAR BIOPHYSICISTS

We will enhance our Ion Channel Biophysics Group by the addition of **two scientists** devoted to the study of excitation-secretion coupling pathways in diabetes, osteoporosis, inflammation or cancer. These individuals will have made significant contributions to our understanding of key steps in cell signaling, especially as relates to the regulation of intracellular ions and other second messengers. Successful candidates will have extensive experience in intracellular fluorescence, electrical, or flux measurements of pump currents, ion-exchange processes and exocytosis.

Background must include a Ph.D. in Physiology, Biophysics, or a related discipline, with a minimum of 3 years postgraduate work. A working knowledge of molecular biological methods essential to the understanding of the structure-function relationships of membrane-associated proteins and release mechanisms is also desired.

Please refer to Job # 9115-1-SC on all resumes.

CELLULAR ENDOCRINOLOGIST

We have an immediate opening for an energetic investigator to join a multidisciplinary group dedicated to the discovery of novel approaches for the treatment of diabetes. The selected individual will initiate research on aspects of hormone action and protein activation at the cellular level and participate in our ongoing research programs in Metabolic Diseases.

Background must include a Ph.D. with a minimum of 3 years of postgraduate work in biochemistry or cell biology and a working knowledge of molecular biology. Research experience in molecular endocrinology/diabetes, with special emphasis on insulin action, signal transduction or protein phosphorylation is highly desired.

Please refer to Job # 9115-2-SC on all resumes.

BONE CELL BIOLOGISTS

(3 Openings)

We will expand our bone biology and physiology efforts by the formation of a new team of scientists with experience in the functional roles of osteoclasts, osteoblasts and other key bone elements.

Applicants are being considered for:

***Team Leader** - This position requires a Ph.D. or an MD with a minimum of 7 years postdoctoral experience in one of the rapidly growing areas of bone cell biology.

***Research Investigator** - This position requires a Ph.D. in Cell Biology or Cell Physiology with a minimum of 3 years experience in bone cell biology.

***Associate Scientist** - This position requires a BS Degree with a minimum of 4 years experience, or an MS Degree with a minimum of 1 year experience working with *in vitro* bone cell systems.

Successful candidates will have made significant contributions to current understanding of the cellular events surrounding bone formation and resorption, and have experience with state-of-the-art technology essential for the study of *in vitro* bone cell systems.

Please refer to Job # 9115-3-SC on all resumes.

Our Research Triangle Park, N.C. location (near Raleigh, Durham and Chapel Hill) offers a lot more for people who seek a well-rounded lifestyle. This world-famous scientific, industrial and academic community affords access to respected universities, beautiful residential areas, excellent health care and abundant cultural and recreational facilities. Join Glaxo and enjoy excellent salaries, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction.

Send your resume, **INDICATING THE CORRESPONDING JOB # and salary history**, to: **Human Resources Department, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) *An Equal Opportunity Employer M/F/H/V.*

Glaxo Inc.

POSITIONS OPEN

POSTDOCTORAL POSITION (M.D. or Ph.D.) is available in a research group working on the physiological basis and consequences of pulmonary disease. Areas of investigation include the pulmonary circulation, pulmonary gas exchange, exercise, peripheral oxygen delivery, control of ventilation, high altitude, and weightlessness. Salaries according to the NIH guidelines with possibility of supplementation. Position available 1 July 1992. *Only U.S. citizens or permanent residents are eligible.* Send curriculum vitae to: **John B. West, M.D., Ph.D., Department of Medicine 0623, University of California, San Diego (UCSD), La Jolla, CA 92093-0623.** UCSD is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION JOHNS HOPKINS UNIVERSITY

A postdoctoral position will soon be open for an individual interested in gene regulation in cancer. The focus will be on those genes responsible for the abnormally high glucose utilization of malignant cells. Applicants with protein and molecular biological experience, and currently completing their Ph.D. thesis work will be given preference. Send curriculum vitae and names of three references to: **Dr. Peter L. Pedersen, Department of Biological Chemistry, School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.** Equal Opportunity Employer.

POSTDOCTORAL POSITION IN CANCER RESEARCH

This position in the Department of Pathology at the University of Tennessee Medical Center, Memphis, is to employ cell and molecular biology approaches to study the mechanisms by which the process of cellular differentiation regulates the expression of cancer suppressor genes and the role that interferon serves in this process. These projects are based on a series of published results, some of which are described in the following papers: [PNAS 86, 1652 (1989); Cancer Research 49, 1008 (1989); Laboratory Investigation 62, 196 (1990); Anticancer Research 10, 1329 (1990) and J. Virology 63, 2718 (1989)]. Candidates should have an M.D. or Ph.D. degree and extensive training in the use of cell and molecular biology techniques including the analysis of transacting factors. This position, which includes the potential for promotion to a staff instructorship after 1 or 2 years, is available 1 July 1992. Qualified candidates should submit their curriculum vitae, bibliography and three letters of recommendation for evaluation between 1 March and 31 March 1992. Please send all information to: **Robert E. Scott, M.D., Chairman, Department of Pathology, The University of Tennessee, 800 Madison Avenue, Memphis, TN 38163.**

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

SAINSBURY LABORATORY MOLECULAR BIOLOGY OF PLANTS AND PLANT VIRUSES POSTDOCTORAL POSITIONS

Opportunities are available for postdoctoral work on the molecular biology of plant viruses and infected plants. The aim of the projects is to identify host plant components which interact with RNA viruses in resistant and susceptible interactions. A variety of approaches are available using molecular, biochemical and genetical techniques.

Familiarity with molecular biological techniques would be an advantage. Applicants with expertise in analysis of proteins with an interest in genome-based gene function or isolation methods are particularly encouraged to apply.

The appointments will be to the R&A1A grade and are available for a period of 3 years and will commence early in 1992. Salary will be on the scale £11,969 to £19,073 per annum (pay award pending). Contributory superannuation scheme. *Equal Opportunities Employer.*

Applications with full curriculum vitae together with the names of three referees should be sent to the **Personnel Officer, John Innes Centre, Colney Lane, Norwich, NR4 7UH** quoting reference **SL/604**. Closing date for applications is 7 February 1992. Further details can be obtained from **David Baulcombe**; (FAX: 0603 250024).

The Sainsbury Laboratory is associated with the John Innes Institute and Cambridge Laboratory at the John Innes Centre.

POSITIONS OPEN

POSTDOCTORAL POSITION available 1 July 1992 for an M.D. or Ph.D. with three or less years of experience in molecular biology/genetics to work with group identifying genes determining insulin resistance, obesity, insulin secretion, and diabetes mellitus in man. Salary up to \$30,000 per year depending on experience. Send curriculum vitae to: **Clifton Bogardus, M.D., National Institutes of Health, 4212 North 16th Street, Room 541, Phoenix, AZ 85016.**

The Washington State University (WSU) College of Agriculture and Home Economics is seeking applications in **ENVIRONMENTAL TOXICOLOGY** and **ANALYTICAL CHEMISTRY** for its Food and Environmental Quality Laboratory in Richland, Washington. These are 12-month, tenure-track positions, with salary and rank commensurate with experience. The Environmental Toxicologist will conduct studies on the fate of pesticides in the environment, identify pesticide injury to plants, and develop educational programs on the risks and benefits of pesticides. The Analytical Chemist will administer the laboratory and conduct pesticide residue studies on crop and environmental samples. Required qualifications: Ph.D. with emphasis in pesticide chemistry of nonaquatic systems, and demonstrated skills in research, leadership, and communication. Contacts: **David Mulla, Toxicology Search Committee, Department of Crop and Soil Sciences, Washington State University, Pullman, WA 99164-6420; telephone: 509-335-3650. Barry Swanson, Chemistry Search Committee, Department of Food Science and Human Nutrition, WSU, Pullman, WA 99164-6376; telephone: 509-335-4281.** Application deadlines: 1 May 1992. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available spring/summer to study the structure and function of mammalian hepatic cytochromes P-450 2B. Specific projects include elucidating the molecular basis for (1) P-450 inhibitor selectivity, and (2) hexachlorobiphenyl detoxification. Both projects utilize a wide variety of approaches such as protein purification, cDNA cloning and expression, site-directed mutagenesis, and HPLC. Strong formal and practical training in recombinant DNA technology is highly desirable and is required for one of the positions. Salary is competitive and negotiable. Applications will be accepted until all positions are filled. Send curriculum vitae and names of three references to: **Dr. James Halpert, Department of Pharmacology and Toxicology, University of Arizona, Tucson, AZ 85721.** *An Equal Opportunity/Affirmative Action Employer.*

ATTENTION SCIENCE ADVERTISERS \$40 SPECIAL

Place your classified ad in any January 1992 or February 1992 issue of *SCIENCE* and we'll give you double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Annual Meeting** for only \$40 more. That's less than the cost of one additional line.

Hurry—place your ads now! **The Employment Exchange** will take place at the **AAAS Annual Meeting**, 7 to 10 February 1992, at the Hyatt Regency Hotel in Chicago, Illinois. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

When you place your classified ad in *SCIENCE*, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest.

For more information on how you can interview candidates on-site contact **Jacquelyn Roberts** at (202) 326-6737.

POSITIONS OPEN

THE IMMUNE RESPONSE CORPORATION

The Immune Response Corporation has a **POSTDOCTORAL POSITION** available to study T cell immunoregulation in autoimmune disease at our suburban San Diego R&D facility. Experience in cellular immunology and/or molecular biology is desired.

Interested candidates should forward their curriculum vitae to:

**Chief Scientific Officer
The Immune Response Corporation
5935 Darwin Court
Carlsbad, CA 92008
Reference: Postdoctoral Fellow
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POSTDOCTORAL FELLOW to perform research on mechanisms of induction of cytochrome P-450 in human liver cells. The qualified professional will also be responsible for developing techniques to measure levels of mRNA for specific isozymes of human P-450s and characterizing the response of cultured human hepatocytes to a variety of model inducers. A Ph.D. in pharmacology, toxicology, biochemistry, genetics or similar field is required. Experience in molecular biology techniques is essential; experience in xenobiotic metabolism is desirable. Salary: \$28,000 to \$30,000 depending on experience. Send résumé to: **C. G. Staffing, AA210, SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025.** *An Equal Opportunity Employer.*

SRI International

POSTDOCTORAL FELLOWSHIPS IN TOXICOLOGY

Two NIH Training Grant Postdoctoral Fellowships will be available in the Division of Pharmacology and Toxicology at the University of Texas at Austin. The first position must be filled by 1 July 1992 and the second by 1 July 1993. Research interests of the Training Program Faculty include: in vitro and cellular toxicology (Acosta); cardiovascular (Combs); non-mammalian models of drug metabolism and toxicity (Davis); oxidative stress, hypoxia, cooxidation (Kehrer); glutathione conjugate mediated nephrotoxicity (Lau); nutrition and the immune system in carcinogenesis (Lockniskar); quinone-thioether toxicity and neurotoxicology (Monks); pharmacokinetics and drug metabolism (Smith). *Applicants should be U.S. citizens or permanent residents.* Please submit curriculum vitae and arrange for three letters of reference to be forwarded to: **Dr. Terrence J. Monks, Director of Recruitment, Toxicology Program, Division of Pharmacology and Toxicology, College of Pharmacy, University of Texas at Austin, Austin, TX 78746.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOW, MOLECULAR RETROVIROLOGY. Available immediately to participate in ongoing research project on simian immunodeficiency virus (SIV) and human immunodeficiency virus (HIV). Current project focuses on a variety of virus-host interactions including molecular mechanisms of persistence, species specificity, and tissue specificity. Applicants should have experience in recombinant DNA technology and/or virology. Interested individuals are encouraged to send a letter of research interest, curriculum vitae, and three references to: **Dr. Toshiaki Kodama, Division of Primate Medicine, Oregon Regional Primate Research Center (ORPRC), 505 N.W. 185th Avenue, Beaverton, OR 97006.** Telephone: 503-690-5284; FAX: 503-690-5563. *The ORPRC is an Equal Opportunity/Affirmative Action Employer.*

HUMAN GENOME POSTDOCTORAL FELLOWSHIPS provide opportunities to conduct research related to the U.S. Department of Energy's Human Genome Program. This program's goal is to develop the tools, technologies, and resources required to efficiently decipher the molecular nature of the human genome. Stipend is \$35,000. Fellowships are tenable at approved DOE and university laboratories. A doctoral degree received after 1 May 1989 is required as is U.S. citizenship or PRA status. Deadline is 1 February 1992. Contact: **Human Genome Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117.** Telephone: 615-576-4805.

Chairperson Department of Physiology and Biophysics

THE UNIVERSITY OF MIAMI SCHOOL OF MEDICINE is seeking a new Chairperson for the Department of Physiology and Biophysics. This opportunity has become available with the decision of Professor Werner Loewenstein, who has guided the Department to a position of international prominence, to pursue his research interests full-time.

On behalf of the School and the Department's faculty, we seek a distinguished scientist who will build on the School's existing strength in Neuroscience and Membrane Biophysics. Dynamic leadership of the Department requires an individual having not only an outstanding record of high quality scientific research, but also a strong commitment to graduate and medical education. The new Chairperson will have the opportunity to recruit faculty dedicated to the highest standards in research and teaching, while fostering collaborative links with others in the University.

Interested applicants should send a *curriculum vitae* to:

Dr. Bernard Roos
Chair, Physiology Search Committee
Dept. of Medicine (D-503)
PO BOX 016960
University of Miami School of Medicine
Miami, FL, 33101



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Fundamental Issues in Vision Research: Molecular and Cell Biological Approaches



(sponsored by the National Eye Institute, NIH)

August 16 - August 29, 1992

This laboratory-lecture course is intended for graduate students and postdoctoral fellows currently training in molecular biology, cell biology, and neurosciences who are not currently involved in vision research. Selected students in NEI sponsored training grants who are now involved in research in related, but non-vision, projects may also apply. Limited to 20 students.

The goal of the course is to present, in depth, the exciting theoretical and experimental approaches to fundamental research problems in vision so that the students can evaluate the potential for active research in this field. The faculty will describe and direct laboratories of on-going research in the tissues of the eye of invertebrates and vertebrates. A typical day will include a tutorial describing a specific disease entity followed by lectures from basic scientists studying molecular and cellular biological problems in a tissue. Afternoons and evenings will be devoted to laboratory exercises or demonstrations and journal club discussions.

DIRECTORS: David S. Papermaster, *University of Texas Health Science Center, San Antonio*; and John E. Dowling, *Harvard University*. **TENTATIVE LIST OF FACULTY:** Robert Barlow, *Syracuse University*; Eliot Berson, *Harvard University*; Robert Baughman, *Harvard University*; Ilene Gipson, *Harvard University*; Paul A. Hargrave, *University of Florida*; Fielding Hejtmancik, *NEI*; Ehud Kaplan, *Rockefeller University*; Wen-Hua Lee, *University of Texas Health Science Center, San Antonio*; Thomas Linsenmayer, *Tufts University*; Richard Masland, *Harvard University*; Jeremy Nathans, *Johns Hopkins University*; Elio Raviola, *Harvard University*; Abraham Spector, *Columbia University*; and Henry Sun, *New York University*.

(Costs of attending the course, including travel, housing, and meals at MBL will be supported by a scholarship fund from NEI.)

APPLICATION DEADLINE: May 1, 1992

Contact: Florence Dwane, Admissions Coordinator
Office of Sponsored Programs, Marine Biological Laboratory,
Woods Hole, MA 02543; (508) 548-3705, ext. 216

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Searle, a wholly-owned subsidiary of Monsanto Company, offers competitive salary and benefits. Qualified applicants should send resumes to: **Research Scientist/Postdoctoral Fellow; SEARLE Human Resources - BB4E; c/o Monsanto Company; 700 Chesterfield Parkway North; St. Louis, MO 63198. An Equal Opportunity Employer.**

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The Dean/Vice Provost directs the activities and administers the budget of a leading oceanographic/marine research and educational institution. A distinguished scientist whose research has attracted international respect and a progressive, energetic, and skilled manager is required. Significant experience with ocean research facilities and demonstrated administrative skills in an academic or research setting are preferred. The position requires ability to provide imaginative leadership to promote the state, national and international role of the institution in oceanography and marine programs.

The preferred starting date is July 1, 1992. Candidates should supply a curriculum vitae, a letter of interest detailing qualifications and experience, and names, addresses and telephone numbers of at least four references. The committee will begin reviewing applications on January 30, 1992 and continue until the search is completed. Applications from minority and women candidates are especially encouraged. Salary commensurate with credentials. **Applications and nominations should be addressed to: Dr. Richard J. Gelles, Chair, Search Committee, University of Rhode Island, P.O. Box G, Kingston, RI 02881-0806.**

KUWAIT UNIVERSITY COMPUTER SERVICES STATE OF KUWAIT

Kuwait University invites applications from highly skilled and dedicated professionals for its Computer Centre. A dual processor Super Main Frame VAX-9000/420 with two Vector Processors is being installed to support academic computing and to provide super computing facilities for scientific research projects.

IBM Main Frame ES-9121/440 is scheduled to be installed by January 1992 to meet administrative computing needs of the University. Both IBM and VAX systems will be connected to a number of LANs consisting of PS/2 and Mac System spread over different campuses.

POSITIONS AVAILABLE

1. *Standards & Documentation Analyst* (K.D.580-780)
B.Sc./M.Sc. with minimum 5 years of experience in developing DP standards and documentation, organising and managing computer centre library.
2. *Senior Training Officer* (K.D.540-740)
B.Sc./M.Sc. with minimum 4 years of experience in organising and conducting training courses on Main Frames and Personal Systems.
3. *Scientific Programmer (PC)* (K.D.540-740)
B.Sc./M.Sc. in Science/Engg. with minimum 4 years of experience in providing support and consultancy in using and programming popular PC software.
4. *Senior Computer Engineer (PC Workshop)* (K.D.540-740)
B.Sc. in Electronics/Electrical Engg. with minimum 5 years of experience in maintaining/installing Personal Systems, Local Area Networks and related equipments.
5. *Senior Computer Engineer (Sites)* (K.D.540-740)
B.Sc. in Engineering with minimum 5 years of experience in preparation and maintenance of computer sites involving Civil, Architectural, Electrical, Air Conditioning, Network Cabling and Communications.
6. *Senior Technician (PC Workshop)* (K.D.340-500)
Higher Secondary with diploma in Electronics/Electrical and minimum of 4 years of experience in maintaining/installing Personal Systems, Local Area Networks and related equipments.
7. *Senior Technician (Networking)* (K.D.340-500)
Higher Secondary with diploma in Electronics/Electrical and minimum of 4 years of experience in preparation/maintenance of communication cables, connectors and installation of communication equipments including modems, terminals, printers etc.
8. *Senior Computer Operator* (K.D.340-500)
Higher Secondary with diploma in Computers and minimum of 5 years of experience in Computer operations on IBM and/or VAX Main Frame Systems involving job scheduling, backups, recovery and other related tasks.

PEREQUISITES

1. *For All Positions*
 - * Tax Free Income
 - * Free Medical Facilities
 - * Gratuity, Annual Vacation etc.
 - As per University rules
2. *For Positions above K.D.540*
 - * Housing Allowance of K.D.150 per month
 - * Annual Family Air Tickets
 - As per University rules

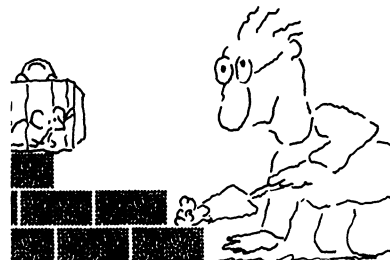
(1 K.D. = \$3.45 approx.)

Mailing Address

Suitable candidates should mail their curriculum vitae with name of the position applied for to:

**Vice Rector For Research
Kuwait University
P.O. Box 5969, SAFAT
13060, KUWAIT**

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POSTDOCTORAL SCIENTISTS IN ANTISENSE THERAPEUTICS

ISIS Pharmaceuticals, located in Carlsbad, CA (San Diego County), is focused on antisense oligonucleotide therapeutics. ISIS has innovative research programs, strong funding, a world-class scientific advisory board, excellent facilities and strong academic ties which make ISIS an exciting opportunity for outstanding individuals. Postdoctoral scientist opportunities are available in the following areas:

RNA Biochemistry

We are seeking postdoctoral scientists to participate in research programs in RNA structure, processing and translation. This program is part of a long-term commitment to high quality and high-visibility research in RNA processing and metabolism. **Position code 107.**

Oligonucleotide Molecular Pharmacology

Research opportunities are available in ongoing efforts to understand oligonucleotide pharmacokinetics and pharmacodynamics in cell culture models of gene expression. **Position code 106.**

NMR

Opportunities are available to study RNA structure and interactions with novel oligonucleotide analogs. **Position code 108.**

Postdoctoral positions provide training opportunities in the emerging area of oligonucleotide therapeutics and are supported by collaboration with senior scientists in strong ongoing research efforts. Publication of results and full interaction with the scientific community is strongly encouraged.

ISIS Pharmaceuticals offers a competitive salary and benefits package. Our new facility is located in San Diego County near the University of California, San Diego, and other major scientific centers. Please submit a cover letter, which clearly specifies position code, cv, reprints of relevant publications, and names and telephone numbers of references to: **Ms. Linda Kopps, ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, CA 92008.** An Equal Opportunity Employer.

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Will conduct research and development of advanced capillary electrophoresis and HPLC methods for the analysis of organic compounds, chemical compounds and bioactive peptides and proteins. Requires Ph.D in Chemistry and 2+ years relevant professional experience preferably in a pharmaceutical organization.

R&D BIOCHEMIST

Will conduct research and development of advanced capillary electrophoresis and HPLC methods for the separation/analysis of biochemical compounds to include amino acids, peptides, protein, glycoprotein, carbohydrates and nucleic acid. Requires Ph.D in Chemistry and 2+ years relevant professional experience.

PRODUCT PLANNING MANAGER-HPLC

Will initiate and develop new product projects and lead the development of strategic plan for HPLC. Will initiate and manage market research program. Requires BS in Chemistry or related science with an MBA preferred. Experience must include 7-10 years sales/marketing with at least 2-5 years marketing HPLC. Supervisory experience is essential.

PRODUCT PLANNING MANAGER-METHOD BASED SYSTEMS

Will supervise and/or conduct market research relative to application-specific systems and represent the market requirements during its product definition process. Requires advanced degree in Chemistry with MBA preferred. Must have 5 or more years in pharmaceutical or biotechnology industry of which at least 2 years must be in sales/marketing. Specific experience with HPLC and/or Capillary Electrophoresis and related software is essential. Previous supervisory experience is required.

PRODUCT PLANNING CHEMIST-HPLC

Will perform experiments which validate product performance and develop proof statements accordingly. Will assist transition of product from product planning to marketing by training marketing personnel and providing customer support. Requires BS in Chemistry or related science, with advanced degree preferred. Must have 2-5 years experience in HPLC or CE method development with specific knowledge of chromatography software and systems.

SENIOR APPLICATIONS CHEMIST

Will participate in the development of and documentation preparation for capillary electrophoresis protein applications. Requires Ph.D in Chemistry or related science with strong background in capillary electrophoresis, preferably in protein applications.

For more information on how you can help bring breakthroughs to life, send your resume with salary history to: **G. T. West (D-27-A), Beckman Instruments, Inc., 2500 N. Harbor Blvd., Fullerton, CA 92634-3100.** An Equal Opportunity/Affirmative Action Employer.

BECKMAN

Staff Scientist

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We currently have an opportunity available in our Biotechnology Department. In this role, you will interact with experienced molecular biologists, protein crystallographers, and protein chemists in a basic research environment focused on the discovery of novel therapeutics.

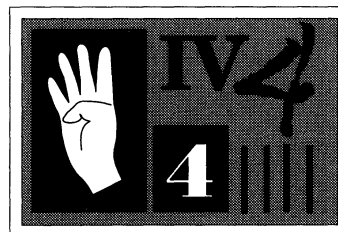
The ideal candidate will have a MS or BS degree in Biochemistry or related discipline with at least one year experience in one or more of the following areas: recombinant DNA technologies, gene expression in bacteria, or protein purification and characterization. Good communication skills and the ability to interact effectively in a team environment are also essential.

Du Pont Merck can offer the successful candidate a highly stimulating scientific environment, excellent technical challenges, a competitive salary, and a comprehensive benefits package. For immediate consideration, please forward your resume, including salary history and requirements to: Dr. Barry A. Springer, Research Scientist, Dept. SCI-117, The Du Pont Merck Pharmaceutical Company, P.O. Box 80228, Wilmington, DE 19880-0228,

or you may fax your resume to: (302) 695-8667. An Equal Opportunity Employer M/F.

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Neuroscience Research Positions - Available Immediately

CORTEX Pharmaceuticals is expanding its research related to understanding and treating stroke, Alzheimer's, and other neurodegenerative conditions. We seek highly motivated individuals who enjoy intense, goal-directed teamwork, are interested in neurodegeneration and wish to help develop novel drug treatments. The following positions require a Ph.D. and postdoctoral experience:

Protein Chemist/Biochemist - Interest and experience in studying both pathogenic events responsible for neurodegeneration and ways to therapeutically intervene is essential.

Behavioral Neuroscientist - Interest or experience in animal models of neurodegeneration and characterization of brain and/or behavioral effects is key.

Neurophysiologist - Training and experience in intra and/or extracellular recording techniques, using *in vitro* slice as well as *in vivo* methods is required. Interest in characterizing ischemic-induced neurodegenerative changes and pharmacological approaches to protection is also a must.

Physiologist/Pharmacologist - Interest, training and experience in studying physiologic changes associated with ischemia, hypoxia and/or edema, as well as *in vivo* drug effects, is required.

Neuroanatomist - Training and experience characterizing degenerative changes in brain are required, as is interest in ischemic-related cell death.

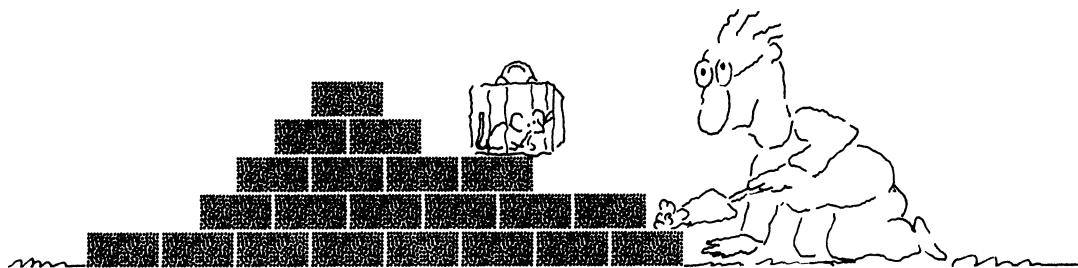


CORTEX offers exciting research programs, a stimulating scientific environment, exceptional growth potential and an excellent compensation package, including participation in a generous stock option plan.

Mail a copy of vita and a letter naming the position (above) while also describing your research interests, qualifications and career goals to:

**CORTEX Pharmaceuticals, Inc., 15241 Barranca Parkway,
Irvine, CA 92718, Attention: Personnel Dept.**

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Faculty Positions
Department of Biochemistry
Tulane University Medical Center

This expanding Basic Science Department is seeking outstanding scientists at early stages of their careers to fill junior-level faculty positions. The successful candidates will be expected to enhance development of an interdisciplinary graduate training program in molecular and cellular biology and establish innovative and independently funded research projects emphasizing the molecular aspects of genetically controlled processes or structure-function relationships and interactions of biological molecules. Participation in educational programs of the medical school is also to be expected. Tulane provides excellent start-up funds, hard-money salary support, fringe benefits, and modern Departmental and Institutional shared instrumentation facilities. A doctoral degree, postdoctoral experience, and evidence of independent scholarly achievement are required. Please send a comprehensive curriculum vitae including a statement of research interests and the names of three references to:

Jim D. Karam, Ph.D.
Chairman, Department of Biochemistry
Tulane University Medical Center
1430 Tulane Avenue
New Orleans, LA 70112

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 All M/F/V are encouraged to apply.*

NANOTECHNOLOGY

Reprint

*Engineering a Small World:
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This 42-page special section, reprinted from the 29 November issue of **SCIENCE**, is your entry to the expanding world of small-scale engineering. It's a field that spans microelectronics, materials science, chemistry, molecular biology, and microscopy. In this special section, ten illustrated articles by research leaders and by science journalists present the full scope of this small world.

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Science

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POSITIONS OPEN

**POSTDOCTORAL FELLOWSHIP IN
 MOLECULAR PARASITOLOGY**

A position available immediately to study molecular biology of the protozoan parasite *Toxoplasma gondii*. Project involves cloning, expression, and characterization of genes and products important for host immunity or useful for diagnosis of infection. Applicant should have a Ph.D. in molecular biology or related field, with experience in gene cloning and expression. Send curriculum vitae and three references to: **Dr. Stephen Parmley, Research Institute, Palo Alto Medical Foundation, 860 Bryant Street, Palo Alto, CA 94301.**

POSTDOCTORAL FELLOWSHIP. A position is immediately available to study signal transduction pathways in human T lymphocytes. Expertise in techniques of molecular biology is essential. A 2-year (extendable) commitment is necessary. *Must be U.S. citizen/permanent resident.* Submit curriculum vitae and names of three references to: **Gary M. Kammer, M.D., Section on Rheumatology, The Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157-1058. Equal Opportunity Employer/Affirmative Action.**

EVOLUTIONARY ECOLOGY

The ecology research group (Crowley, Gleeson, Sargent, Sih, Westneat) at the University of Kentucky seeks applications for **POSTDOCTORAL ASSOCIATES** and **GRADUATE RESEARCH ASSISTANTSHIPS** (fall 1992) in an NSF-funded collaborative research program in evolutionary ecology (e.g., life history and foraging strategies, mating and parental behavior, species interactions) in animal and plant systems. Postdoctoral positions are for 1 year with the potential for renewal; applicants should send a letter stating research interests, curriculum vitae, and references. Contact: **Dr. Andrew Sih, School of Biological Sciences, University of Kentucky, Lexington, KY 40506.**

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE/FELLOW. Position available immediately for two postdoctoral candidates to join an exciting group dedicated to understanding the mechanisms of Alzheimer's and neurodegenerative diseases from several perspectives. Successful candidates should have Ph.D. or equivalent degrees and experience in immunohistochemistry, cell biology and/or molecular biology techniques. Research motivation will be weighed over specific expertise. Send curriculum vitae and the names, addresses and telephone numbers of three references to: **Barry W. Festoff, M.D., or Ming Chen, Ph.D., The University of Kansas at the Kansas City VA Medical Center, Neurobiology Research Laboratory (151R), 4801 Linwood Boulevard, Kansas City, MO 64128. An Equal Employment Opportunity Employer.**

ALZHEIMER'S RESEARCH ASSOCIATE

Postdoctoral studies involving kinetics of plaque and filament formation. Experience in fast reaction techniques, NMR, CD, fluorescence, and neuropeptide synthesis desirable. Salary commensurate with experience. Forward curriculum vitae, a brief letter outlining goals for postdoctoral research, and three letters of reference to: **Professor Y. Pocker, University of Washington (UW), Department of Chemistry BG-10, Seattle, WA 98195. The UW is an Equal Opportunity/Affirmative Action Employer.**

**U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURE RESEARCH SERVICE (ARS)**

POSTDOCTORAL RESEARCH ASSOCIATE. Position available as early as January 1992 to investigate genetic control of chilling requirement and cold tolerance in blueberry. The research associate will participate in constructing a genetic map of blueberry using RFLP markers with the goal to identify markers linked to genes which control chilling requirement. A Ph.D. within the last 4 years is required. Additional requirements: Ph.D. in genetics, molecular biology, botany, horticulture, or related area. Knowledge of basic techniques of molecular biology and basic principles of genetics. Salary: \$32,423 to \$38,861. Telephone: 301-504-6654 or send curriculum vitae to: **Dr. L. J. Rowland, USDA/ARS, Fruit Lab-Building 004-Room 111, BARC-West, Beltsville, MD 20705. ARS is an Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position available for recent Ph.D. to study the signal transduction pathways or interference in growth factor responses for interferons in human neoplastic cells that relate to antiproliferative activity. Studies will utilize mutants selected for interferon resistance with aberrant signaling processes, and will additionally determine the mechanism by which interferons potentiate the activity of other cytotoxic agents. Techniques include cell and molecular biology, protein biochemistry, HPLC and cell culture. A strong background in cell biology, molecular biology or biochemistry is required. Send curriculum vitae and three letters of reference to: **Dr. J. A. Houghton, Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL TRAINEESHIPS
 EPIDEMIOLOGY OF AGING AND
 CARDIOVASCULAR DISEASES**

Postdoctoral traineeships for up to 3 years are available beginning June 1992 in epidemiology and prevention of cardiovascular diseases and aging. Individual training plus opportunity to obtain a master's or doctoral degree in epidemiology. Research linked to clinical and laboratory research. Specific areas of interest include: pharmacological and nonpharmacological treatment of hyperlipidemia; evaluation of peripheral vascular disease; Alzheimer's Disease; genetics of lipoproteins; cardiovascular disease in women; osteoporosis; minority health; diabetes and cardiovascular disease; fatty acid metabolism; clinical trials analysis; obesity and physical activity. Excellent research and field resources are available.

We encourage applications by minorities and women. Physician applicants must be eligible for licensure in the United States. Send résumés to: **Dr. Lewis H. Kuller, M.D., Dr. P.H., University of Pittsburgh, Graduate School of Public Health, Department of Epidemiology, 130 DeSoto Street, Pittsburgh, PA 15261. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Educational Institution.**

**NUTRITION/NEUROBIOLOGY
 RESEARCH POSITION AVAILABLE
 USDA HUMAN NUTRITION
 RESEARCH CENTER ON AGING (HNRCA)
 AT TUFTS UNIVERSITY
 BOSTON, MASSACHUSETTS**

Lead Scientist position available in Neurobiology and Neurobehavioral Sciences to study nutrition and aging at the USDA Human Nutrition Research Center on Aging at Tufts University. Applicants should have a record of independent research relevant to nutrition and the aging brain and be capable of organizing a research program in a Nutrition Center with facilities for human studies, animal research, and cellular/molecular biology. Must have demonstrated research accomplishments in nutrition and neurobiology. Further information on the research program and position is available from **Dr. R. L. Prior, Room 917, USDA HNRCA at Tufts, 711 Washington Street, Boston, MA 02111. Telephone: 617-556-3310.** For information on application procedures/forms contact **Alice MacNamara, telephone: 301-344-1920.** Applications in response to this advertisement should be marked **2N019** and sent to: **Alice MacNamara, USDA-ARS, Personnel Division, 6303 Ivy Lane, Room 322, Greenbelt, MD 20770** by 15 February 1992. Salary range: \$46,000 to \$75,000 (GM-13 to GM-15). The grade at which the position is filled will depend upon the experience and demonstrated scientific and leadership capability of the successful candidate, and will be determined by a peer Research Grade Evaluation Panel. *Must be a U.S. citizen. The U.S. Department of Agriculture/Agricultural Research Service is an Affirmative Action/Equal Opportunity Employer.*

FREE PRODUCT INFORMATION SERVICE

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1333 H Street, NW
Washington, DC 20005

HUMAN GENE THERAPY

Postdoctoral Positions

The Molecular Hematology Branch of the National Heart, Lung, and Blood Institute is currently recruiting for a number of postdoctoral fellowships. Available positions are for research in one or more of the following areas: 1. Development of an injectable/targetable gene transfer vector, 2. Application of homologous recombination to human gene transfer, 3. Gene therapy for the treatment of human retroviral diseases, 4. Gene therapy for the treatment of hemophilia. Research will be performed in the Molecular Hematology Branch in collaboration with other groups at NIH and our nearby CRADA company, Genetic Therapy Inc. Candidates should have a Ph.D. or M.D. with research experience in molecular biology, retrovirology, and/or cell biology. U.S. citizenship is not required. Positions will be available for immediate starting and into 1992. Send Curriculum Vitae and names of references to:

**W. French Anderson, M.D., Chief,
Molecular Hematology Branch,
National Institutes of Health, National
Heart, Lung, and Blood Institute,
Building 10, Room 7D-18, 9000
Rockville Pike, Bethesda, MD 20892.**

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3M Biosciences Laboratory is developing skin testing technologies for use in product development and has an outstanding opportunity in the area of skin bio-engineering.

Qualified candidates must have a PhD or equivalent experience in Skin Physiology, Skin Pharmacology, Skin Bio-Engineering or a related field with strong understanding of the anatomy, physiology and biomechanics of the skin. Broad familiarity with bio-mechanical testing of skin and testing instrumentation is essential. Experience with clinical skin testing and clinical protocol development is desirable. You will improve existing and develop new skin testing methods and collaborate in developing a wide range of novel skin-related products.

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Position in

MOLECULAR FUNGAL-PLANT INTERACTIONS

The Ohio State Biotechnology Center invites applications for a tenure-track faculty position at the Assistant or Associate Professor level. We are particularly interested in candidates with potential to build a dynamic, innovative research program in the molecular biology of fungal interactions with plants. The successful applicant will hold an academic appointment in an appropriate department in the College of Biological Sciences or Agriculture, and join a campus-wide community of nearly forty scientists studying the molecular biology of plants, microbes and their interactions. Competitive salary, newly renovated laboratory space, and generous start-up funds are offered. Modern plant propagation facilities are available and a state-of-the-art transgenic plant facility is being built.

Screening will begin by February 15, 1992. Send a curriculum vitae, a statement of planned research, and have three letters of reference sent to: **Dr. David M. Bisaro,**

**Fungal-Plant Search, The
Ohio State Biotechnology
Center, Rightmire Hall,
1060 Carmack Road,
Columbus, OH 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

**THE
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STATE
UNIVERSITY**

UNIVERSITY OF CALIFORNIA, SAN DIEGO NASA TRAINING PROGRAM IN EXO BIOLOGY Predoctoral and Postdoctoral Fellowships

Several predoctoral and postdoctoral fellowships are available at the NASA specialized Center of Research and Training in Exobiology, La Jolla, CA. The Center is a joint undertaking of investigators at the University of California, San Diego, The Scripps Research Institute, and the Salk Institute for Biological Studies and is administered through the California Space Institute at Scripps Institution of Oceanography, UCSD. Individuals with a Ph.D. degree or equivalent, preferably in geochemistry, chemistry, biochemistry, or molecular biology, who have an interest in exobiology or exobiology-related research are also sought. There are also fellowships available for qualified graduate students who have been accepted to the Ph.D. program in either biology or chemistry at UCSD or the Scripps Research Institute Appointment and salary level will be commensurate with experience and determined by UC salary scales.

The program offers a unique opportunity for interdisciplinary studies related to the theme of the origins of life. The Center consists of a core facility and five laboratories under the direction of faculty members from UCSD (Gustaf Arrhenius, Jeffrey Bada, Stanley Miller), Scripps Research Institute (Gerald Joyce), and the Salk Institute (Leslie Orgel). Topics for research include cosmochemistry, primordial geochemistry, prebiotic chemistry, nucleic acid chemistry, RNA biochemistry, peptide biochemistry, and molecular evolution. Interested persons should send resume with a statement of research interests and the names and addresses of at least three references to: Dr. Stanley L. Miller, NSCORT Director, California Space Institute, University of California, San Diego, La Jolla, CA 92093-0216. The University of California, Scripps Research Institute, and Salk Institute for Biological Studies are Equal Opportunity/Affirmative Action Employers

**Desert Research Institute
University of Nevada System
Executive Director
Atmospheric Sciences Center
Reno, Nevada**

Directs and advances research programs through executive management, scientific leadership and personal development. ASC has a research staff of 53 and has been a leader in research on cloud and aerosol physics for 30 years.

ASC is the home of the NOAA-administered Western Regional Climate Center. Qualifications: Ph.D. in science or engineering, proven track record of creativity and accomplishments, as well as demonstrated national/international standing in a research field which complements and expands current ASC programs; senior-level expertise in research and fiscal management for a diverse group of scientific personnel; appointment at full Research Professor; salary commensurate with that of a college-level administrator.

ASC is one of five DRI Research Centers, with faculty based at Stead, Reno, and Las Vegas. Other centers within DRI conduct multi-disciplinary research in the biological sciences, quaternary sciences, air resources, and water resources. DRI has an excellent benefits program. Review of applications will begin on March 15, 1992. Send letter of interest and resume to:

Recruitment Officer
Desert Research Institute
University of Nevada System
P.O. Box 19040
Las Vegas, NV 89132-0040

Call Dr. James Hudson, Chairman, Search Committee, for more information: (702) 677-3119

The Desert Research Institute is an
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Postdoctoral Fellow

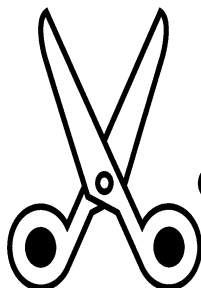
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Genentech, a leader in the biotechnology industry, has an exceptional opportunity for a Postdoctoral Fellow in our Endocrine Research Department.

This group is conducting basic research on a number of protein hormones including growth hormone, IGH-I, relaxin, activin, inhibin and hepatocyte growth factor. Research projects will be customized to the candidate's interests. This position requires a PhD or equivalent and preference will be given to those who want to study integrative endocrinology.

Please send your resume by February 28th, 1992 to Genentech, Inc., Human Resources Dept. YS/MC, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity.

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IMMUNODERMATOLOGY
DEPARTMENT OF
PATHOLOGY—
UNIVERSITY OF MICHIGAN**

A Postdoctoral Fellowship and an Assistant Research Scientist (non-tenure track) faculty position are immediately available to study the role of HIV-1 in Psoriasis with emphasis on dermal dendrocytes (Science, 243: 1736, 1989) and the cytokine network (Am. J. Path., 138: 129, 1991; Arch. Dermatol, 127:871, 1991).

A 2-year appointment is available for candidates with either a Ph.D. or M.D. degree, and a background in cellular immunology involving macrophages, TNF-alpha and/or molecular virology. Individuals should be U.S. citizens or permanent residents. Send C.V. and names of references to:

Brian J. Nickoloff, M.D., Ph.D.
M4232 Medical Science I,
Box 0602
1301 Catherine Road
Ann Arbor, MI 48109
FAX: 313-936-0755

**Group Leader
Molecular Core Laboratory**

Genetic Therapy, Inc., a leading biotechnology company, is working with researchers at the National Institutes of Health and at academic medical centers to develop retroviral mediated and other gene transfer methods applicable to gene therapy. It is currently seeking an experienced individual to lead an active group of six scientists engaged in providing molecular support for different research groups investigating various aspects of human gene therapy. Currently, the molecular core lab provides PCR, DNA sequencing, Southern analysis, oligonucleotide synthesis and related services. GTI offers a stimulating and challenging research environment, with competitive salaries and benefits. Please send a resume, along with the names and addresses of two references to:



Genetic Therapy, Inc.
Human Resources - GL
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The recent opening of the new Glaxo Inc. Biotechnology Research Institute, located in Research Triangle Park, NC, represents Glaxo's continued commitment to the discovery and development of drugs for unmet patient needs. We invite you to experience the challenges and accomplishments a future with us holds for you. The following opportunities are now available.

ASSOCIATE SCIENTIST

This individual will play an important role in our expanding efforts in the areas of **transcriptional regulation** and the development of insect/mammalian cell based gene expression systems. Responsibilities include general molecular biology, transient transfection assays and stable cell line development using recombinant plasmids, and insect/mammalian cell expression technology.

Background should include a BS/MS in Molecular Biology or a related discipline with a minimum of 2-4 years of laboratory experience. The successful applicant will have experience in cell culture, DNA transfections, Northern and Western gel analysis, and proficiency in general recombinant DNA methodologies. Experience with promoter-reporter gene and DNA gel-shift assays would be beneficial.

Please refer to Job # 9126-1-SC on all resumes.

ASSOCIATE SCIENTIST

A key position is available in our **bacterial expression** group. Responsibilities include plasmid vector development for expression of recombinant proteins in *E.coli*, in vitro DNA mutagenesis, DNA sequencing, and gene expression analysis using SDS gel/Western blot analysis.

Background should include a BS/MS in Molecular Biology or a related discipline and a minimum of 2-4 years laboratory experience. The successful candidate will have experience in general recombinant DNA methodologies, expression plasmid construction, DNA sequencing, and in vitro DNA mutagenesis techniques. Experience with DNA sequence analysis software and PCR would be beneficial.

Please refer to Job # 9126-2-SC on all resumes.

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

Glaxo Inc.

Science at Synergen

Synergen, a young and growing biopharmaceutical company in Boulder, Colorado, is developing protein-based human pharmaceuticals for the treatment of serious diseases. We are currently seeking Ph.D. scientists in discovery research and in pharmacokinetics.

Our **DISCOVERY RESEARCH GROUP** requires innovative scientists with a Ph.D. in the life sciences, biochemistry or chemistry. Candidates should have either a proven expertise in protein purification and an interest in cell adhesion molecules, growth factors or cytokines; or experience in synthesis and use of agents for chemical modifications of proteins.

Our **PHARMACOKINETICS GROUP** requires a scientist with a Ph.D. in pharmacokinetics, pharmacology or physiology and a well-established expertise in pharmacokinetics and protein analysis.

Excellent written and oral communication skills and the ability to work independently are essential for these positions.

Synergen, Inc. offers a competitive compensation package, generous benefits and a Rocky Mountain community renowned for its beauty, culture and natural attractions as a place to live and work. If you value the professional challenge of a progressive, fast-paced, innovative company, Synergen can offer you career opportunity in a non-traditional work environment.

Please send your Curriculum vitae, in confidence, to: Synergen, Inc., Director of Recruitment, Box SCJ, 1885 33rd Street, Boulder, CO 80301. Synergen is an Equal Opportunity Employer.



POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately to study the proliferation and differentiation of the hematopoietic stem cells using a defined in vitro cell culture system. Aim is to understand how certain integrins and cytokines act to regulate stem cell behavior toward proliferative or differentiation signals. Ph.D. required and experience in mammalian expression vectors highly desirable. Send curriculum vitae, copies of relevant publications, and names and addresses of three references to: **Vikram Patel, Department of Biochemistry, Molecular and Cell Biology, Northwestern University, 2153 Sheridan Road, Evanston, IL 60208.**

RESEARCH ASSOCIATE. A position is available at the Health Sciences campus of the University of Louisville, Louisville, Kentucky, for the study of nuclear receptors. Studies examine the interactions of thyroid/steroid receptors with auxiliary proteins and the regulation of transcription. Experience with molecular biology of receptors, cloning, cell culture, and protein-DNA interactions is necessary. Send curriculum vitae and names of three references to: **Douglas S. Darling, Ph.D., Thorn Research Building, Room 905, 20 Shattuck Street, Boston, MA 02115. University of Louisville is an Equal Opportunity Employer.**

WANTED: MICHAEL JORDAN OF THE LAB BENCH

Young, "upstart" clinical and research laboratory in Houston, Texas, is looking for a star.

Ph.D. preferred, but talent required. We need an individual with a biochemistry background, who is versed in molecular techniques, including PCR, is familiar with interferon and lymphokine biology, and understands flow cytometry. In short, a "Jack of many trades," and one who desires to master them, too. (Can you dance? Can you sing? Can you do all these things?) You must also enjoy performing R&D on a shoe-string budget, working in an atmosphere of creativity and enthusiasm, and making a dandy salary all while becoming part of our success. Send your detailed résumé to:

**ONCORE Analytics, Inc.
4900 Fannin, Box CVH
Houston, TX 77004**

BIOLOGICAL SAFETY OFFICER

The University of Wisconsin-Madison seeks biologist to lead professional staff in Biological Safety Office to ensure campus-wide safe use of infectious microorganisms, biological toxins and regulated plant and animal materials in laboratories, clinics and field situations and to coordinate employee occupational safety programs. Graduate research experience in the biological sciences with at least an M.S., experience with biological safety or occupational health issues, and 5 years of postdoctoral or equivalent experience are required. A Ph.D. in microbiology, genetics, infectious disease, or molecular biology is highly desirable. For consideration, submit curriculum vitae and professional statement and have three letters of reference sent by 10 February 1992 to: **Dean, Graduate School, Biosafety Officer Search Committee, University of Wisconsin, 5000 Lincoln Drive, Madison, WI 53706. Telephone: 608-262-1044. The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.**

VERSAR, INC., ESM OPERATIONS

Versar, Inc., a nation-wide environmental consulting company has one or more openings for **QUANTITATIVE AQUATIC ECOLOGISTS** at their Columbia, Maryland, facility. Experience or training in impact assessment, environmental monitoring and resource management desirable; M.S. or Ph.D.; diverse technical experience (e.g., fisheries, wetlands, benthos, power plant impacts) an advantage.

For immediate consideration, please send résumé in confidence to: **Glynda Squiggins, Versar, Inc., 9200 Rumsey Road, Columbia, MD 21045. Telephone: 410-964-9200.**

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POSITIONS OPEN

BIOTECH VENTURE CAPITAL CONSULTANT. Large medical venture capital firm seeks experienced **SCIENTIST** or **MEDICAL DOCTOR** for part-time evaluation of medical technology. We will be compensating consultants with valuable equity positions in companies we have built.

Please send curriculum vitae to: **Jeffrey Wolfe, Vice President, Medical Venture Partners, 375 Park Avenue, Suite 1501, New York, NY 10022.**

The Department of Radiology at the University of California, San Francisco (UCSF), is seeking to fill an open position for an **ASSISTANT RESEARCH PHYSICIST**. The candidate will serve at the UCSF Radiologic Imaging Laboratory as an image processing specialist to participate in magnetic resonance imaging research (MRI). This position requires a scientist with a Ph.D. degree in the physical sciences and experience in feature extraction in the presence of noise and in alternatives to FFT image reconstruction methodology. *The University of California is an Equal Opportunity/Affirmative Action Employer. Minority groups, women and handicapped individuals are encouraged to apply.* Send curriculum vitae and three letters of reference by 31 March 1992 to: **Leon Kaufman, Ph.D., Radiologic Imaging Laboratory, 400 Grandview Drive, South San Francisco, CA 94080.**

RESEARCH SCIENTIST

A research scientist is sought for research in quantitative transmission electron diffraction and crystallography and applications to fundamental problems in solid-state physics. Category of academic professional, title research scientist, rank assistant. Continuing status (tenure-track). A Ph.D. in solid-state physics required with at least 2 years of postdoctoral experience. Position requires experience in the theory and practice of dynamical electron diffraction, in the measurement of crystal structure factor phases by the three-beam method, and in the application of numerical optimization techniques to the dynamical inversion problem. Ability to operate new electron microscopes and compose computer code in FORTRAN and C required. Experience in convergent beam electron diffraction and energy filtering devices required. Salary \$44,000 for 12 months. Qualified applicants send résumé, application letter and names, addresses of three referees with advertisement by 17 February 1992 to: **Professor J. C. H. Spence, Physics Department, Arizona State University, Tempe, AZ 85287. Proof of authorization to work in the United States required if hired. Affirmative Action/Equal Opportunity Employer.**

RESEARCH SCIENTIST to design and conduct research on production of fuels from alternative (non-petroleum) feedstocks, especially low rank coals (coal liquefaction); design and conduct new experiments aimed at developing new and more efficient processes in preparation of coal liquids; perform research utilizing pilot plants and smaller benchtop liquefaction units; compile and analyze data; isolate and characterize maceral from coals (especially low rank coals) and other sediments and determine liquefaction behavior; develop new analytical techniques for coals and coal macerals to enhance understanding of the structure and reactivity; prepare reports of findings for presentation to management and, where appropriate, for publication; utilize and develop Fourier Transform Infrared Spectroscopy (FTIR), nuclear magnetic resonance spectroscopy (NMR), pyrolysis-high-resolution mass spectrometry and pyrolysis-gas chromatography-mass spectrometry in rendition of above. Ph.D. in organic chemistry required as well as 2 years of experience in job offered or 2 years of experience as postdoctoral research fellow. Must have completed one course in each: organic synthesis; organic polymer chemistry; organic geochemistry of fossil fuels. Must have conducted academic or industrial research in development of a chemical means for the determination of coal maturity by measurement of systematic structural changes in polydiaterpenoids found resinite as well as a global systematic classification system for these resinites. *Must have proof of legal authority to work permanently in the United States.* Forty hours, 8:00 am to 4:00 pm; \$50,500 per year. Two copies of your résumé required. Send résumé to: **Illinois Department of Employment Security, 401 South State-3 South, Chicago, IL 60605, Attention: James McBride, Reference #V-IL-4643-T. No calls. Employer-paid ad.**

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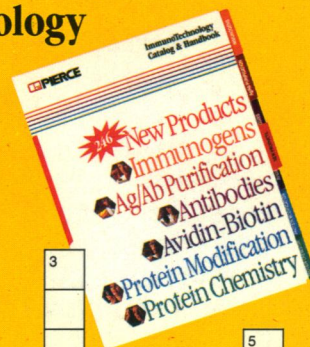
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ACROSS

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8. A traditionally used precipitating HRP substrate
10. Functionality which will react with carbonyl groups for stable hydrazone linkages
11. A T-cell mitogen (abbreviation)
13. May be used for both antibody screening and isotyping
16. Reacts with thionuridine moieties on RNA
17. Inhibits calcium-dependent cysteine proteases in tissues
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20. The most common neutral lipophilic fluorescent probe
22. Used to produce human Fc5 μ fragments
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DOWN

1. Will bind to trypsin
3. Protein which has considerable structural homology to C1q
4. Used to label antibodies at aldehyde sites without inhibition of the antigenic site
5. Has been used in a colorimetric assay for cellular transglutaminase
6. Found only in the basement membrane
7. Some of Pierce's polyclonals have been _____ against immunoglobulins from other species
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1. Solve the puzzle. All of the answers can be found on pages 1-56 in the New Products Section of your 1992 Pierce ImmunoTechnology Catalog and Handbook. Only one entry per person. Photocopies of this ad will be accepted.
2. Complete the information at right. All information must be included.
3. Tear out this page, place in an envelope and mail to: Pierce Puzzle, P.O. Box 117, Rockford, IL 61105. All envelopes must be postmarked no later than March 13, 1992.
4. If more than one entrant solves the puzzle, the winner will be selected in a random drawing on March 31, 1992. Winner will be notified no later than April 15, 1992.
5. All entrants must be researchers at least 21 years of age and employed by an industrial, academic, clinical or governmental research facility. Employees of Pierce Chemical, Pierce Europe, Perstorp, Pierce Agents/Distributors or family members of aforementioned are ineligible.
6. All federal, state and local laws and regulations apply; void where prohibited by law.
7. Taxes are the sole responsibility of the winner.
8. No purchase necessary to win.
9. Winner has the option to donate the money to a charity of choice.



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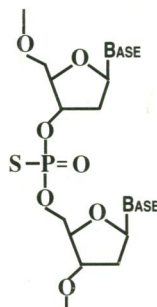
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Just supply us with the peptide sequence and Research Genetics does the rest! Your peptide will be synthesized using the latest Fmoc solid phase methods utilizing the MAP resin technology which increases the antigenic response. Antibodies are generated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

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- maintain the polyanionic characteristic of natural DNA
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Shipped in 10 days

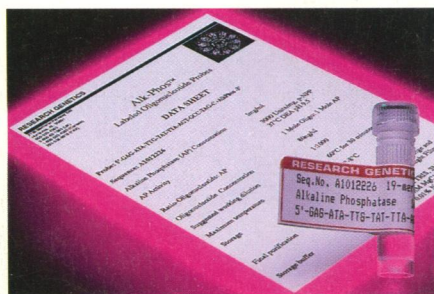
\$30.00 / residue

No set-up charges

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Labeled Oligonucleotides



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- visualization using colorimetric or chemiluminescent methods •
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Published PairsTM PCR[†] primer sets

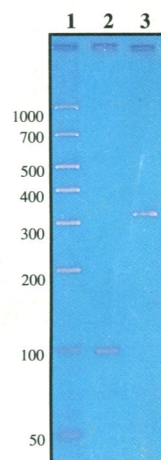
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- Ethidium bromide stains of each band with equal intensity
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