

Products & Materials

DNA Fingerprinting Hybridization Membrane

The Hybond-Nfp is a hybridization membrane that is independently quality controlled for DNA fingerprinting applications. Each batch is tested for uniformity of wetting, sensitivity, efficiency of stripping, and reprobing. Independent testing removes the need for traditional in-house quality control checks. Amersham International. Circle 88.

Cell Settling Chamber

The DC8 Cell Settling Chamber can be used to prepare randomly distributed cells on a microscope slide so that the cells are then suitable for morphological identification and differential counting. The chamber's eight wells are filled with 50 ml of cell suspension at concentrations of 10^3 to 10^6 cells per milliliter. As the cells settle, fluid is slowly wicked away by damp filter paper placed between the microscope slide and the acrylic top plate of the chamber. Within 20 to 40 min, the cell monolayers on the slide are completely dry. The combination of settling and bulk fluid removal spreads the adherent cells in a way that exhibits excellent morphology after staining. Neuro Probe. Circle 89.

Graph Translation Software

UnGraph is a software program designed for the scientist who wants to know the coordinates of a graph, chart, or drawing. Used with any office scanner capable of giving line art (1-bit bilevel) TIFF or PCX files, UnGraph can vectorize the lines and read off the X- and Y-coordinates with user-selected precision. Output is in ASCII or AutoCad DXF formats for easy transfer to other programs. The program runs on IBM PC, XT, AT, 386, 486, PS2, or compatible computers with 512K random access memory, EGA or VGA video adapter, and DOS 2.0 or higher. A mouse is required. Math coprocessor and hard disk are desirable. Biosoft. Circle 90.

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.

Monoclonal Antibodies

A murine monoclonal antibody (MAb) specific to the *c-erb* β -2 oncoprotein, external domain, is recommended for immunohistochemical staining on either frozen or paraffin wax-embedded tissue. Caltag Laboratories. Circle 91.

A MAb is available that labels trophoblastic cells of the villous trophoblastic epithelium in the placenta and epithelia and basement membrane protein in normal tonsil. DAKO Corp. Circle 92.

Tritium-Labeled Custom Peptides

Multiple Peptide Systems can synthesize a custom peptide sequence and label it with tritium covalently attached to the molecule. The final compound contains all natural underivatized amino acids (no foreign residues such as iodinated amino acids). The average peptide contains two or three tritium atoms per molecule and comes complete with all the necessary quality control data in a certificate of analysis. Multiple Peptide Systems. Circle 93.

Tissue Engineering Products

GENESIS Tissue Engineering Products allow the user to fabricate living, three-dimensional tissue and organ constructs with cells of the user's choice. The Tissue Fabrication Kit combines stromal cells and collagen to form a tissue model. Epithelial or endothelial cells can then be seeded on top of the tissue to form a bilayered organ model. The Living Tissue Substrate, comprised of normal human dermal fibroblasts within a collagen lattice, provides a substrate on which to seed other cells. It supports the growth and differentiation of many epithelial or endothelial cells. Organogenesis. Circle 94.

Decontamination System

The VHP 1000 Biodecontamination System uses a vaporized form of hydrogen peroxide. It can sterilize biological safety cabinets, glove boxes, isolation equipment, small rooms, and other sealable enclosures. The system provides a safer alternative to the most commonly used disinfectants, such as formaldehyde, glutaraldehyde, and peracetic acid. The VHP 1000 catalytically converts the vapor-phase hydrogen peroxide to water vapor and oxygen during each



cycle, leaving no harmful by-products. And unlike the disinfectants, it can also sterilize. AMSCO Scientific. Circle 95.

Submarine Gel System

The EC360 Maxicell is designed for the rapid screening of a large number of DNA or RNA fragments in agarose gels. Each unit comes with one 20 by 20 cm and one 10 by 20 cm gel tray, two comb holders, two 40-well combs, two 22-well combs, two 10-well combs, and two 2-well combs. Other features include one-piece injection molded construction for leakproof use, recirculation ports, and a built-in level and leveling feet. E-C Apparatus Corp. Circle 96.

Literature

Cell Pathology Products 1992 Catalog lists more than 200 ready-to-use and concentrated antibodies, plus enhanced biotin-streptavidin detection systems for use in immunohistochemistry and in situ hybridization. It includes more than 30 new monoclonal antibodies and new detection systems for immunostaining and for in situ hybridization with biotinylated probes. BioGenex Laboratories. Circle 97.

Cel-Line Printed Microscope Slides is a 26-page catalog that highlights the advantages of a proprietary hydrophobic coating that prevents cross-contamination and increases microliter capacity over conventional coatings. Cel-Line Associates. Circle 98.

1992-1993 SP Chromatography Catalog features more than 6900 products from 40 manufacturers in a single reference guide. Scientific Products, Baxter Diagnostics. Circle 99.

Microscopes and Accessories for the Modern Microscopist describes more than 100 new products. McCrone Accessories & Components. Circle 100.

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.

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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

FACULTY POSITIONS

The Center for Extracellular Matrix Biology at the Institute of Biosciences and Technology, Texas A&M University, located at the Texas Medical Center, Houston, Texas, invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level. Applicants should have a Ph.D. or M.D. and a proven record of accomplishments as a postdoctoral fellow or faculty member and have research interests in the area of extracellular matrix biology. Preference will be given to candidates with training in biochemistry and/or cell biology and experience in molecular biology.

Applicants should send a letter outlining their research interests, their curriculum vitae and three letters of reference to: **Dr. Magnus Hook, c/o Bill Alley, Institute of Biosciences and Technology, 2121 Holcombe Boulevard, Houston, TX 77030.**

The Texas A&M University System is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR—ANATOMY

The Department of Anatomy of the Kirksville College of Osteopathic Medicine is seeking applications for a tenure-track assistant professor. The faculty member shall participate in teaching gross anatomy to medical students and will be expected to establish an independent research program. Applicants should submit curriculum vitae, the names of three references, and a brief description of research interests by 1 May 1992 to: **Lex Towns, Ph.D., Department of Anatomy, Kirksville College of Osteopathic Medicine, Kirksville, MO 63501. Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR

The Department of Microbiology and Molecular Genetics of Harvard Medical School is seeking a talented young retrovirologist for SIV/AIDS research at the affiliated New England Regional Primate Research Center. Successful candidates are expected to develop an independent research program and to collaborate with other faculty members on site doing federally funded SIV/AIDS research. Send curriculum vitae, copies of representative publications and names of three references to: **Search Committee, Division of Microbiology, New England Regional Primate Research Center, Harvard Medical School, 1 Pine Hill Drive, Box 9102, Southborough, MA 01772-9102. Harvard Medical School is an Equal Opportunity/Affirmative Action Employer.**

PHARMACOLOGY—ASSISTANT PROFESSOR UNIVERSITY OF THE PACIFIC SCHOOL OF PHARMACY

Applications invited for tenure-track position, assistant professor level; 11-month appointment. Background in organ system pharmacology and commitment to active, independent research. Responsibility for teaching organ systems component of a human pharmacology course. Active involvement in graduate program (M.S., Ph.D.). Doctoral degree and experience essential. Candidate reviews begin 20 April 1992. Send curriculum vitae and three letters of reference to: **Associate Dean Robert Supernaw, School of Pharmacy, University of the Pacific, Stockton, CA 95211. Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSISTANT PROFESSOR

A position is available for a Ph.D. or equivalent to conduct independent research and to work collaboratively with other investigators in the study of the cellular and molecular basis of immunocyte activation. This individual should have completed at least 2 years of postdoctoral research experience which is well documented by publications in peer-reviewed journals. A background in molecular genetics and biochemistry will be preferred. The position is in the Division of Surgical Oncology, Department of Surgery.

*Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates. To apply, send curriculum vitae and references to: **Chairman, Department of Surgery, Stanford University School of Medicine, Medical School Office Building, Room X300, Stanford University, Stanford, CA 94305.***

POSITIONS OPEN

Temple University School of Medicine is offering two tenure-track positions in the Physiology Department and Thrombosis Research Center at the **ASSISTANT PROFESSOR** level. Applicants must have an M.D. or Ph.D., with demonstrated research expertise in liquid-breathing and/or endothelial physiology. The candidates may have a molecular biology, biochemical physiological or pharmacological background. The candidates are expected to develop a vigorous, independently funded research program and to participate in some aspects of collaborative programs. Applicants should forward curriculum vitae, a description of research interests and three letters of recommendation by 30 March 1992 to: **Dr. James Ryan, Department of Physiology, Temple University School of Medicine, Philadelphia, PA 19140. Temple University is an Equal Opportunity Employer. Applications are encouraged from women and members of minority groups.**

RESEARCH ASSISTANT PROFESSOR to join a leading team of clinicians and research scientists at a major university. This nontenured, nontenure-earning position will be responsible for directing the molecular biologic component of an established fundamental research laboratory. Interested applicants should have expertise in molecular biology, especially transfection. Experience in receptor biology is desired. The position requires a Ph.D. degree. Competitive salary and generous benefit package. Send curriculum vitae and reply to: **William J. Koopman, M.D., Howard L. Holley Professor of Medicine, Director, Division of Clinical Immunology and Rheumatology, The University of Alabama at Birmingham (UAB), Birmingham, AL 35294. UAB is an Affirmative Action/Equal Opportunity Employer.**

The Diabetes Research Center and the Department of Biochemistry and Biophysics of the University of Pennsylvania Medical Center are searching for a **RESEARCH ASSISTANT PROFESSOR** in the area of pancreatic islet cell glucose metabolism and insulin secretion. The appointee will be expected to participate in an intensive institutional team effort of pancreatic islet research ranging from islet cell transplantation to the molecular genetic basis of diabetes mellitus in animals and man. Candidates should forward their curriculum vitae, summary of research interests and arrange for three letters of recommendation to be sent to: **Ms. Ruth Keris, Staff Assistant, Department of Biochemistry and Biophysics, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6059. The deadline for applications is 24 April 1992. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

The Department of Pharmacology in conjunction with the Pittsburgh Cancer Institute is seeking applicants for one or more tenure-track positions at the **ASSISTANT** and/or **ASSOCIATE PROFESSOR** levels. These individuals should have demonstrable experience conducting and producing original laboratory-based research in cancer biology. We are especially seeking scientists who are interested in cellular signaling, oncogene and tumor suppressor gene expression, transcriptional regulation or chemotherapy. Provide curriculum vitae and references to: **Carol Larson-Edwards, Department of Pharmacology, University of Pittsburgh School of Medicine, E1340 Biomedical Science Tower, Pittsburgh, PA 15261. Equal Opportunity/Affirmative Action Employer.**

A full-time position available as **ASSISTANT/ASSOCIATE PROFESSOR** at the University of California (UC) Davis Medical Center, Sacramento, for individual Board-certified or Board-eligible in internal medicine and nephrology with a strong commitment to research, preferably in molecular or cellular biology. The individual recruited will participate in all clinical, research and teaching activities of the Nephrology Division. Opportunities for basic research are available in the division; current activities are primarily directed at cellular and molecular biology and an individual who can interact with our ongoing areas of investigation is highly desirable. Research start-up money will also be available. Interaction with the active graduate groups on the UC Davis campus will be encouraged. Address inquiries to: **George A. Kaysen, M.D., Ph.D., Nephrology 4301 X Street, Sacramento, CA 95817. No applications accepted after 15 June 1992 with an anticipated start date of 1 January 1993.**

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

**ASSOCIATE DEAN
DIVISION OF BASIC MEDICAL SCIENCES
FACULTY OF MEDICINE
MEMORIAL UNIVERSITY OF NEWFOUNDLAND**

The Associate Dean of Basic Medical Sciences is responsible for the activities of the Division of Basic Medical Sciences and for the activities of the individuals of the Division in the manner of a Division Head. The Associate Dean represents the Basic Medical Sciences faculty in their dealings with the Dean and to an appreciable extent in the dealings of the Division with other portions of the University. The Associate Dean should be an active researcher and at the same time actively promote the interests of the Division by addressing needs for funds, space and faculty, and generally facilitate the work of the Division members.

The Division includes 46 full time Faculty in the full range of disciplines basic to Medicine, and is organized on a non-departmental basis. The Division has particular strengths in the biochemistry, immunology, molecular biology and neurosciences. Applicants are not limited to these areas. The Division is housed with the Faculty in the Health Sciences Centre on the University campus and the Medical School carries full accreditation from LCME/CACMS.

The successful applicant will have an established reputation in research, demonstrated administrative capability and a commitment to support teaching at the undergraduate and graduate levels. The position is available July 1, 1992. Both internal and external candidates are encouraged to apply.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applications with a detailed curriculum vitae and the names of three references should be sent by May 31, 1992.

**Dr. Roy West, Chair
Search Committee for Associate Dean
Basic Medical Sciences
Faculty of Medicine
Health Sciences Centre
Memorial University of Newfoundland
St. John's, Newfoundland
Canada A1B 3V6
Telephone: (709) 737-6652
FAX: (709) 737-7382**

PENNSTATE



**11th Summer Symposium in Molecular Biology
July 23-25, 1992**

"CELL GROWTH AND REGULATION"

The Thomas J. Watson, Jr. Lecture in Molecular Biology

Phillip Sharp *MIT*

Signal Transduction

Harvey Lodish *MIT*

Atsushi Miyajima *DNAX*

Joseph Schlessinger *NYU*

Ann Stock *UMDNJ*

Cell Cycle

David Beach *Cold Spr Harbor*

Stephen Osmani *Baylor*

Steven Reed *Scripps*

Joan Ruderman *Harvard*

Gene Regulation

Michael Grunstein *UCLA*

Alan Hinnebusch *NIH*

Sydney Kustu *UC Berkeley*

Danny Reinberg *UMDNJ*

Cellular Differentiation

Charles Emerson Jr. *Fox Chase*

Michael Levine *UC San Diego*

Stuart Orkin *Harvard*

Kristina Zsebo *AMGEN*

Symposium Co-chairs: Ross Hardison, James Hopper, Robert Schlegel.

Director: Kamal Rashid. We acknowledge our university sponsors:

Biotechnology Institute, Graduate School, College of Agricultural Sciences, Eberly College of Science, Dept. Molecular and Cell Biology, and Dept. Microbiology and Immunology (Hershey); and our industry sponsors: Schering-Plough, Corning, Costar, and IBRD.

CONTACT: Pat Phillips, Penn State Biotechnology Institute, 519C Wartik, University Park, PA 16802, 814-863-3650. Posters/abstracts due 5/22/92.

POSITIONS OPEN

**FACULTY POSITIONS
MEHARRY MEDICAL COLLEGE**

Applications are invited for a tenure-track position as **ASSISTANT OR ASSOCIATE PROFESSOR** in the Department of Microbiology. Candidates are sought with training and research experience in immunology or microbial pathogenesis. Successful applicants will be expected to participate in graduate and professional teaching programs of the department and to develop and maintain an extramurally funded research program. Institutional programs in cell and molecular biology, neurosciences, and tropical diseases provide opportunities for collaborative research. *Applications from minority and women candidates are especially encouraged.*

Please send curriculum vitae, a summary of research interests and three references to:

**Shirley B. Russell, Chairperson
Department of Microbiology
Meharry Medical College
Nashville, TN 37208**

Meharry Medical College is an Affirmative Action/Equal Opportunity Employer.

**FACULTY POSITIONS
IN BIOCHEMISTRY**

The Department of Biochemistry at The University of South Alabama College of Medicine seeks applicants for three tenure-track positions at the level of **ASSISTANT OR ASSOCIATE PROFESSOR** to begin after 1 September 1992. Very competitive salary, start-up funds and laboratory space are available. Candidates must show strong promise of maintaining extramural funding for their research. Although excellence of the individuals is more important than his/her area of study, those whose research combines biochemistry, molecular biology and other experimental approaches to the study of mechanisms of human genetic disease are especially encouraged to apply. Faculty will also participate in the training of both medical and graduate students. Send curriculum vitae, representative publications, a statement of research goals and names of three references (by 31 May 1992) to: **Dr. Nathan N. Aronson, Chairman, Department of Biochemistry (MSB 2146), University of South Alabama, College of Medicine, Mobile, AL 36688.** *The University of South Alabama is an Equal Opportunity/Affirmative Action Employer.*

**FACULTY POSITION IN PHARMACOLOGY
TOXICOLOGY FOR TOXICOLOGIST**

The University of Mississippi Medical Center invites applications for a position with the rank of **ASSOCIATE OR FULL PROFESSOR** in the Department of Pharmacology and Toxicology. The applicants should have a Ph.D. or M.D. degree, a strong record of published research and a history of grant support in areas using modern biochemical, cell biological or molecular genetic approaches to toxicological research. Applicants interested in immunological, neurological, environmental, or reproductive toxicology are most desired. Salary and rank will be commensurate with education and experience. The successful applicant is expected to establish an independent, extramurally funded research program and participate in the teaching activities of the department. Interested persons should send curriculum vitae with a brief description of research interests and arrange for three letters of reference. These should be sent to: **Arthur S. Hume, Ph.D., Chairperson of Search Committee, Department of Pharmacology and Toxicology, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505.** *Equal Opportunity Employer, M/F/H/V.*

GROSS ANATOMY

The School of Podiatric Medicine at Barry University seeks applicants for **ASSISTANT OR ASSOCIATE PROFESSOR** of gross anatomy. Requirements: Ph.D. with preparation in anatomy with background in histology; commitment to teaching podiatric medical students; preferred minimum of 5 years of full-time teaching/research experience. Responsibilities include lecture, cadaver laboratory and student advising. Send résumé, transcripts and three letters of recommendation to: **Chet Evans, D.P.M., F.A.C.F.S., Dean, Barry University School of Podiatric Medicine, 11300 N.E. 2nd Avenue, Miami Shores, FL 33161.**

POSITIONS OPEN

NEUROSCIENTIST POSITION. The Ohio State University. Applications are invited for a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. We seek someone for a primary appointment in a clinical department with the potential for a joint appointment in a basic science department. The successful candidate should have evidence of research and teaching excellence in molecular, cellular or systems neuroscience; the M.D. degree; and Board certification or eligibility in a clinical neuroscience specialty. Our neuroscience program currently includes 80 faculty members with a variety of interests including developmental neuroscience, regeneration and plasticity, biochemical neuropathology, central nervous system transplant technology, gastrointestinal neurophysiology, nervous control over homeostasis, neuropharmacology, psychobiology, psychoneuroimmunology, brain imaging, neuromuscular diseases, movement disorders, neurooncology, Alzheimer's disease, and neurobiology of schizophrenia and affective disorders. Applications including curriculum vitae, and three to five references should be mailed to: **Dr. George F. Martin, Department of Cell Biology, Neurobiology and Anatomy, 4066 Graves Hall, 333 West 10th Avenue, The Ohio State University, Columbus, OH 43210** by 30 June 1992 or until the position is filled. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN THE DEPARTMENT OF MOLECULAR GENETICS, BIOCHEMISTRY AND MICROBIOLOGY

We are presently searching for a faculty member to complement one or more of our areas of interest which include protein structure and engineering, virology, microbial and mammalian genetics, gene regulation and developmental biology, and immunology. Generous space and start-up funds are available and the appointment will be at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. The department currently has 25 full-time members with strong research programs and is the lead department in the NHLBI-sponsored Program of Excellence in Molecular Biology. We maintain a strong and active graduate program, plus core facilities in microbiology, cell culture, DNA synthesis and sequencing and production of transgenic mice. All these factors contribute to an excellent research atmosphere. Applicants should submit curriculum vitae, brief description of anticipated research and the names of three qualified references to: **Jerry B. Lingrel, Ph.D., Professor and Chair, Department of Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati College of Medicine, Cincinnati, OH 45267-0524.**

Affirmative Action/Equal Opportunity Employer.

EMORY UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF RADIATION ONCOLOGY RESEARCH POSITIONS

The Department of Radiation Oncology seeks faculty at the **ASSISTANT, ASSOCIATE AND PROFESSOR** ranks for new positions in the department. Areas of particular interest include the nature and origin of mutations creating dominant and recessive oncogenes, molecular mechanisms of tumor progression, the role of oxygen radicals in radiation toxicity and mutagenesis, differential sensitivity of tumor cells to environment and therapeutic agents, and model systems for metagenesis. The department includes a new state-of-the-art Radiation Therapy Center with significant laboratory research space. Collaborations are anticipated with faculty in the Departments of Surgery, Genetics and Molecular Medicine and the Cancer Center. Candidates should hold credentials suitable for faculty appointment at the various ranks with a demonstrated record of research.

Applications will be accepted until positions are filled and should include curriculum vitae and the names of three references and should be forwarded to:

**Lawrence W. Davis, M.D.
Professor and Chairman
Department of Radiation Oncology
The Emory Clinic
1365 Clifton Road, N.E.
Atlanta, GA 30322**

Affirmative Action/Equal Opportunity Employer.

Pharmacodynamics Research

The Medical Research Division of American Cyanamid Company is recognized as a leader in the research and development of therapeutic compounds. Our products have been instrumental in the treatment of infectious diseases, cancer, cardiovascular and central nervous system diseases. We currently have several opportunities available for scientists to participate in the Pharmacokinetics, Bioanalytical and Drug Metabolism Departments.

Senior Research Scientist, Project Planning and Documentation

In this highly visible position, you will be responsible for the critical evaluation and summarization of pharmacokinetic, metabolism and bioanalytical data in support of global drug registration and product acquisitions. This position involves extensive interaction with other groups in the Medical Research Division including Regulatory Affairs, and Clinical and Toxicology Research, as well as supervisory responsibilities.

Applicants should have a Ph.D. or Pharm. D. in pharmaceutical sciences, pharmacology, toxicology or related field and 4-6 years experience or M.S. and 8-10 years experience. Expertise in clinical and/or nonclinical pharmacokinetics, data presentation and technical writing are required. Preference will be given to candidates with expertise in drug development and global drug registration guidelines. (Dept. EW)

Senior Research Scientist and Research Scientist, Bioanalytical

We are seeking experienced Bioanalytical Chemists to work in state-of-the-art laboratories using automated HPLC/GC/Robotic instruments. As a Senior Research Scientist, you will be responsible for developing sensitive analytical methods for new drug candidates in biological fluids and improvement of existing methods.

As a Research Scientist you will provide analytical support for both pre-clinical and clinical studies; be responsible for validation of bioanalytical methods and analysis of bio-fluids/tissues for trace levels of drugs and their metabolites under GLP compliance. You will also monitor similar work performed at contract labs.

Both positions require a Ph.D. in analytical chemistry or related field with 2-4 years bioanalytical experience or M.S. with 4-6 years bioanalytical experience. A background in organic chemistry and use and troubleshooting of automated HPLC/GC is required. Good writing skills, experience with Zymark Robots and supervisory experience are desirable. (Dept. SB)

Senior Research Scientist, Drug Metabolism

This position involves planning, organizing and conducting complex *in vivo* and *in vitro* drug metabolism studies utilizing a wide variety of analytical techniques. Expertise in drug metabolism, enzymology and medicinal chemistry is desirable. The individual will collaborate with scientists in drug discovery research and safety assessment.

Applicants should have a Ph.D. in biochemistry, medicinal chemistry, pharmacology or related field with 2-4 years relevant Post-doctoral experience and good oral and written communication skills. (Dept. DC)

Our Research Discovery Labs are located in Rockland County on the 580-acre, campus-like setting of Lederle Laboratories, 25 miles northwest of Manhattan. This interdisciplinary research community is a stimulating environment for professional growth and affords easy access to several excellent universities and medical schools.



If you are interested in one of these positions, please send us a c.v. with salary requirements and indicate the Dept. code for the position of your choice, to: Professional Employment, Lederle Laboratories, 401 N. Middletown Road, Pearl River, NY 10965. An Equal Opportunity Employer M/F.

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POSITIONS OPEN

NUTRITION POSITION AVAILABLE, ASSISTANT/ASSOCIATE PROFESSOR. The Department of Nutrition Sciences, University of Alabama at Birmingham (UAB), is seeking qualified candidates as **FACULTY MEMBER** for the Division of Gastroenterology/Nutrition. This is a full-time, 12-month tenure-earning position. Candidates should have a Ph.D. degree with extensive experience in nutrition and lipoprotein metabolism, especially gene expression. Academic rank/salary will be commensurate with qualifications. Interested persons should send curriculum vitae and a list of three references to: **Frank Franklin, M.D., Department of Nutrition Sciences, Division of Gastroenterology/Nutrition, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294.** UAB is an Affirmative Action/Equal Opportunity Employer.

PROFESSOR OF OPHTHALMOLOGY HARVARD MEDICAL SCHOOL MASSACHUSETTS EYE AND EAR INFIRMARY

Harvard Medical School and Massachusetts Eye and Ear Infirmary invite applications for a position of professor of ophthalmology from individuals with strong credentials in the area of molecular genetics, biochemistry and cell biology of the retina. Research should be directed toward the molecular basis of photoreceptor function. In addition to conducting his/her own major research program, the individual will foster collaborations with other retinal vision scientists in the Howe Laboratories and the Berman-Gund Laboratory at the Massachusetts Eye and Ear Infirmary. The individual is also expected to be actively involved in the teaching and training of medical students, doctoral candidates, post-doctoral fellows, and young clinicians seeking experience in laboratory research. Reply with curriculum vitae and statement of research interests to: **Dr. Frederick Jakobiec, Chairman, Department of Ophthalmology, Massachusetts Eye and Ear Infirmary, 243 Charles Street, Boston, MA 02114.** Harvard Medical School and Massachusetts Eye and Ear Infirmary are Affirmative Action/Equal Opportunity Employers, M/F/D/V.

ASSISTANT CHAIRPERSON. The Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, invites applications for the position of assistant chairperson. This is a permanent, non-tenure-track position with the rank of lecturer. The assistant chairperson's duties include project management, planning analyses, development of industrial relations, administration of graduate recruitment, coordination of graduate training and research. Candidates must have a Ph.D. in the life sciences; administrative experience is preferred but not required. Candidates with academic experience are encouraged to apply and should send their curriculum vitae and arrange for three letters of reference to be sent to: **Professor Neil E. Welker, Chairperson Search Committee, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL 60208.** Northwestern University is an Affirmative Action/Equal Opportunity Employer. Deadline: 30 April 1992.

COA STAFF DIRECTOR

The Council on Ocean Affairs, representing 50 marine science institutions, is seeking a full-time Staff Director. The Staff Director is responsible for managing the activities of the council, which is administratively housed in Joint Oceanographic Institutions Incorporated (JOI Inc.). The position involves extensive interaction among the academic community, the public, and policy-makers in Washington, D.C. The Staff Director will be expected to represent the views of member institutions and to keep member institutions informed on a wide variety of issues.

Qualifications necessary include a master's degree or equivalent experience in ocean science or a related geophysical science and a good working knowledge of the academic community, the federal decision-making structure, and the political process. Excellent interpersonal, communication, organizational, and writing skills are essential. Computer skills are highly desirable. The position will be open in late spring; exact starting date and salary are negotiable.

Applicants should submit a letter of interest and résumé to: **Personnel-COA, Joint Oceanographic Institutions Incorporated, 1755 Massachusetts Avenue, N.W., Suite 800, Washington, DC 20036-2102** by 30 April 1992. JOI Inc. is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CHAIR OF BIOLOGY UNIVERSITY OF LOUISVILLE

Nominations and applications are invited for the position of Chair of the Department of Biology. The University of Louisville is a state university with 23,000 students. The Department of Biology has 18 faculty with 450 undergraduate majors and 50 students enrolled in M.S. and Ph.D. programs. The department confers a Ph.D. in environmental biology. Research interests in the department range from molecular to ecosystems studies. Preference will be given to candidates whose research program will complement and support current departmental programs in environmental biology. Candidates are expected to have prior administrative experience, an outstanding record of research and extramural funding, and academic credentials necessary for appointment as professor with tenure. Screening of applicants will start 13 April 1992. Send curriculum vitae, statement of research interests, and names and addresses of three references to: **Chair Search Committee, Department of Biology, University of Louisville, Louisville, KY 40292.** The University of Louisville is an Equal Opportunity/Affirmative Action Employer. African-Americans, women, and other minorities are encouraged to apply.

CHAIR BIOCHEMISTRY AND MOLECULAR BIOLOGY

The University of Miami School of Medicine is seeking applications and nominations for the position of Professor and Chair of the Department of Biochemistry and Molecular Biology. The person filling this position will have the unique opportunity to greatly expand the department's capabilities in the area of molecular biology. Substantial funds for the development of the department are available through a generous award from the Lucille P. Markey Charitable Trust as well as considerable funding from the University. In addition to funding the new chair these resources will be used to support a number of new investigators, as well as start-up funds and major new equipment. The department occupies a new seven-story building which was completed in the fall of 1990. The department includes 16 faculty members (tenure track) with full-time primary appointments and a well-established graduate program with 35 trainees.

The applicant must have a Ph.D., M.D. or equivalent degree, be internationally recognized for contributions to molecular biological research, have a commitment to educational activities, and have clearly demonstrated leadership and administrative capabilities. The successful candidate is expected to be an outstanding scientist with a strong ongoing, independent and well-funded research program. This person will be expected to promote the molecular biological research capabilities of the department, the Medical School and the university, and to recruit outstanding scientists to the faculty.

Interested applicants should submit curriculum vitae including the names of three references to: **Dr. R. Rodney Howell, Search Committee Chairman, Department of Pediatrics, University of Miami, P.O. Box 016820 (D-820), Miami, FL 33101.** An Equal Opportunity/Affirmative Action Employer.

THE SCHOOL FOR FIELD STUDIES IN CONJUNCTION WITH NORTHERN UNIVERSITY FIELD DIRECTOR POSITIONS OPEN MARINE MAMMALS, BAJA, MEXICO MARINE RESOURCES, CARIBBEAN

Director will lead faculty and 30 undergraduates in summer and semester programs in an interdisciplinary, hands-on, field-oriented research program. Will manage all aspects of the site, live on site in a remote field setting and provide academic leadership for faculty and students.

Qualifications: Ph.D. preferred, M.S. minimum, solid administrative, research and field experience. Must have experience in the region and have applied background in the specific focus of the center.

For Baja: must speak Spanish and understand conservation issues related to marine mammals in the region.

For Caribbean: must have extensive experience in marine resource management or marine ecology in the area.

To apply: Send letter and curriculum vitae to: **S-Search, School for Field Studies, 16 Broadway, Beverly, MA 01915, telephone: 508-927-7777.**

POSITIONS OPEN

CHAIR DEPARTMENT OF HUMAN NUTRITION AND FOOD SYSTEMS

Applications and nominations are invited for the position of professor (tenured) and Chair of the Department of Human Nutrition and Food Systems at the University of Maryland, College Park (College of Agriculture). Candidates should have a demonstrated record of outstanding research accomplishments and extramurally funded research programs in areas related to human nutrition and/or food science, a strong commitment to teaching, and professorial and leadership experience in an academic institution. Send a letter of application or nomination along with curriculum vitae and names, addresses and telephone and FAX numbers of at least three individuals who could be contacted as references to: **Dr. Arthur N. Popper, Department of Zoology, University of Maryland, College Park, MD 20742.** For best consideration, applications should be received before 1 June 1992.

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

DIRECTOR, BIOTECHNOLOGY FACILITY

The Institute of Molecular Biology at the University of Oregon seeks a **SENIOR RESEARCH ASSOCIATE** to serve as Director for its shared Biotechnology Facility. The facility provides oligonucleotide synthesis, peptide synthesis, protein sequencing and HPLC separation technologies to approximately 300 researchers at the university and elsewhere. Applicants should have demonstrated expertise in one or more of the technologies provided by the facility. Inquiries and applications should be directed to:

**F. W. Dahlquist, Chair, Biotechnology Search
Institute of Molecular Biology
University of Oregon
Eugene, OR 97403**

The deadline for applications is 9 April 1992.

The University of Oregon is an Equal Opportunity/Affirmative Action institution committed to cultural diversity.

Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

FASEB

5 to 10 April 1992, Anaheim
Issue dates: 27 March 1992
3 April 1992

Analytica

5 to 8 May 1992, Munich
Issue Date: 24 April 1992

American Society for Microbiology

26 to 30 May 1992, New Orleans
Issue date: 8 May 1992

Biotechnology/Pharmaceutical Careers

Special Issue of SCIENCE
Issue date: 8 May 1992

Your classified ad will enjoy
BONUS DISTRIBUTION
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Deadline for line classified ads:
15 days prior to issue date at 10:00 a.m.
Call for display ad deadlines.

SCIENCE Classified Advertising
Telephone: 202-326-6555
FAX: 202-682-0816

CENTRAL NERVOUS SYSTEM DRUG DISCOVERY

The Bristol-Myers Squibb Pharmaceutical Research Institute is the R&D Division of Bristol-Myers Squibb, a worldwide leader in the discovery and development of pharmaceuticals. We currently have the following exceptional opportunities available in our Neuropharmacology Department:

Research Investigator Neuropharmacology

This individual should possess a Ph.D. in Neurochemistry/Neuropharmacology/Neurobiology and 1-2 years postdoctoral experience. The incumbent will be conversant with the techniques of in vitro neurotransmitter release and uptake; first-hand experience with measurement of activity of second messenger systems (cAMP, cGMP, PI) would be a plus. A knowledge of measurement of ion flux ($^{45}\text{Ca}^{++}$, $^{86}\text{Rb}^{+}$, and the use of fluorescent dyes) would also be attractive. An understanding of the neurochemical events surrounding cerebral ischemia/hypoxia/stroke, including the role of excitatory amino acids, adenosine, and ion channels is highly desirable. Please reply to **Dept. ATZ-92-0050**.

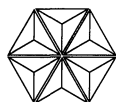
Assistant/Associate Research Scientist

This position requires a BS/MS and experience with ligand-receptor interactions and receptor-mediated signal transduction systems. A strong background in molecular pharmacology and experience with cell culture and receptor cloning are preferred. Please reply to **Dept. ATZ-92-0048**.

Assistant Associate Research Scientist Electrophysiology

Primary responsibilities will be to conduct EEG studies with an emphasis on the neuropharmacological treatment of sleep disorders. A BS/MS and relevant background are necessary. Experience with surgical techniques and anesthesia, plus familiarity with the operation of electrophysiological lab equipment such as oscilloscopes, amplifiers and physiographs, is desirable. Preference will be given to candidates with a working knowledge of computer-based data acquisition and analysis systems including some programming skills. Please reply to **Dept. ATZ-92-0051**.

We offer a competitive salary and benefits package. For consideration, please forward your resume and salary history, along with appropriate Dept. code, to: **Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 5101, Wallingford, CT 06492-7661**. Equal Opportunity Employer, M/F/D/V.



Bristol-Myers Squibb Company

SOMATIX GENE THERAPY

Somatix Therapy Corporation is a leader in the emerging field of gene therapy, focusing on the genetic modification of cells to enable the production and delivery of therapeutic proteins within the body. We are currently expanding our research and development staff and are seeking highly qualified individuals to work on our Cancer and Central Nervous System disease programs. The following research positions are available:

CANCER

Program Director

You will be responsible for bringing Somatix's Cancer program to the clinic. Our unique approach involves developing a cancer vaccine by genetically modifying tumor cells to produce lymphokines that stimulate immune rejection of the tumor. As the leader of this program, you will be required to facilitate interdisciplinary collaboration among a team of research scientists and associates within the company as well as at affiliated academic institutions. Requires a Ph.D. or M.D. and 10 years related industrial or academic experience.

Senior Scientist—Tumor Immunology

In our cancer vaccine program you will identify mechanisms of interactions among immune system cells, lymphokines and tumor antigens. You will also investigate the role of dermal and subcutaneous components of the immune system in generating an effective anti-cancer vaccine. Requires a Ph.D. and at least 6 years postgraduate experience.

Scientist—Tumor Cell Biology

You will be responsible for developing new methods to isolate, culture and characterize primary human tumor cells. You will also establish important parameters in the genetic modification of primary tumor cells using retroviral vectors. Requires a Ph.D. and at least 4 years related postgraduate experience.

Scientist—In vivo Tumor Models

You will develop rodent tumor models of cell-based vaccines utilizing genetically modified tumor cells. You will use these models to elucidate the efficacy of anti-cancer vaccines. Requires a Ph.D. and least 4 years postgraduate experience.

NEUROBIOLOGY

Director

As the leader of the neurobiology department, you will be responsible for building a research program in the use of genetically modified cells for treatment of neurodegenerative diseases. Particular emphasis will be placed upon studies of long-term gene expression and survival of genetically modified cells implanted in the brain. You will supervise research scientists and associates and must be able to facilitate team efforts. Requires a Ph.D. and 10+ years of related industrial or academic experience. Previous experience managing postgraduate scientists essential.

Somatix provides an excellent career opportunity in a rapidly growing company, as well as a competitive compensation and benefits package. Please submit curriculum vitae to: Somatix Therapy Corporation, Attn: Personnel, 850 Marina Village Parkway, Alameda, CA 94501.

RADIATION EFFECTS RESEARCH FOUNDATION

HIROSHIMA, JAPAN

CHIEF OF RESEARCH

The U.S. National Academy of Sciences (NAS) is seeking a Resident Director and Chief of Research for the Radiation Effects Research Foundation (RERF) in Hiroshima, Japan. RERF is a private foundation in Japan with laboratories in Hiroshima and Nagasaki with over 430 employees. The Foundation is equally funded by the Government of Japan, through the Ministry of Health and Welfare, and by the U.S. Government, through the NAS with funds from the Department of Energy (DoE). RERF is also equally managed by citizens of the two countries. The position of Chief of Research is responsible for the research activities conducted at RERF on the long-term follow-up of late health effects among the survivors of the atomic bombs, and assists in the day-to-day management of the Foundation with five other Directors, all of whom live in Japan. Qualified candidates for this position must be U.S. citizens and have an M.D. or Ph.D. or equivalent with extensive experience in basic research (genetics, molecular biology, cellular biology, immunobiology, etc.) and management of multi-disciplinary research programs. U.S. Resident Directors are employees of the United States National Academy of Sciences and RERF. Salaries are commensurate with experience and are supplemented by relocation, housing, and cost-of-living benefits. Terms of office of Directors are for four years with a maximum of two terms (eight years). Typical NAS appointments are for two years with extensions of additional two year appointments, up to the eight years, if warranted. Please send your resume and names and addresses of at least three references to: Board on Radiation Effects Research, (NAS 342-CE), 2101 Constitution Avenue, NW, Washington, D.C. 20418. EOE

NATIONAL RESEARCH
COUNCIL



SCIENCE Presents:

Pharmaceutical/Biotechnology Careers in Industry A Special *SCIENCE* Recruitment Advertising Section

The May 8 issue of *SCIENCE* features a *special* on careers in industry. This first-time supplement to *SCIENCE* is custom-made for your recruitment advertisement and the perfect place to tell *SCIENCE's* readership of science professionals about career opportunities at your pharmaceutical or biotechnology firm.

This *first-time special section* will explore these and other important questions:

- What challenges and incentives does a career in a pharmaceutical or biotechnology firm offer?
- What qualifications are needed?
- How do scientists in the industry view their own careers?

Take advantage of greater exposure by placing your full page ad in this special section. The traditional recruitment section is also available.

Your recruitment ad will receive even more visibility in this issue which will be distributed at the American Society of Microbiology (ASM) in New Orleans, May 26-30.

Don't miss this opportunity, contact Janis Crowley at (212) 496-7704 to reserve your space.

**SPACE RESERVATION DEADLINE:
TUESDAY, APRIL 21, 1992**



MOLECULAR GENETICIST ANNOUNCEMENT POST-DOCTORAL RESEARCH ASSOCIATE, MOLECULAR GENETICS. Knipling-Bushland U.S. Livestock Insects Research Laboratory, Kerrville, Texas.

The United States Department of Agriculture, Agricultural Research Service is seeking a **MOLECULAR GENETICIST** to work with a team of investigators developing a sensitive procedure for detecting pesticide resistance in individual, field collected ticks. Candidate must have a working knowledge of and experience using modern recombinant nucleic acid techniques, including DNA and RNA isolation, producing and screening recombinant libraries, and amplification and characterization of genes. Knowledge of the genetics of pesticide resistance in insects or acarines would be helpful, but not essential. Ph.D. received within the last 4 years is required prior to entrance on duty. Initial appointment will be for two years. Salary is commensurate with experience (\$32,423 to \$50,516 per annum). For information on the research program/position and for information on application procedures/forms, contact Larry R. Hilburn at (512) 257-3566. Applications in response to this advertisement should be marked RA-92-59 (S-2-020). Applications must be received by 1 June 1992.

Mailing Address:

**USDA, ARS, Knipling-Bushland U.S. Livestock
Insects Research Laboratory
P.O. Box 232**

Kerrville, TX 78029-0232

The USDA is an equal opportunity employer.

**UNITED ARAB EMIRATES UNIVERSITY
FACULTY OF MEDICINE & HEALTH SCIENCES**

The Faculty of Medicine and Health Sciences was established by Royal Decree in 1986 with the clear remit of becoming an international center of excellence both in terms of teaching and research. To this end, applications are invited from suitably experienced individuals to hold the following positions:

Professor and Chairman—Department of Anatomy
Professor and Chairman—Department of Pharmacology
Professor and Chairman—Department of Physiology

Each Department has a complement of academic members and an establishment of technicians. Facilities for research are available.

Applicants for this position must possess a Ph.D. degree; in addition if medically qualified, evidence of high professional standing is necessary, such as Fellowship of a Royal College of the U.K., Ireland, Canada, Australia and New Zealand, or certification by the American or Arab Board for Medical Specialization.

Applicants for this position must be able to demonstrate leadership experience in the development and implementation of teaching, research and, if appropriate, clinical service programmes. Fluency in English is essential as this is the language of instruction.

Benefits for the successful appointment include an extremely competitive tax-free salary, free accommodation, furniture allowance and assistance with children's school fees. The University will also provide an interest free car loan and business class tickets from the point of recruitment at the beginning and at the end of the contract and once during the academic year. An award of 8.6% of the gross salary is payable at the end of each year of service.

The Emirates has one of the most enviable lifestyles of the Gulf Region with all the amenities of any modern society.

Interested candidates can apply by sending a comprehensive curriculum vitae, a list of publications, copies of certificates and the names and addresses of four current referees to:

Professor Iain McA Ledingham
Dean—Faculty of Medicine
United Arab Emirates University
P.O. Box 17666
Al Ain, United Arab Emirates
Fax No. 00971-3-0657649

Applications will be closed 6 weeks after the date of publication.

**Associate Director
Office Of Cooperative Research**

Yale University is seeking applications for the position of Associate Director—Technology Commercialization within its Office of Cooperative Research which is responsible for patents, copyrights, and licensing. Reporting to the Director, the incumbent will identify, encourage and solicit disclosures of new technologies resulting from research conducted throughout the University and will develop and implement plans for ensuring their commercialization. The Associate Director—Technology Commercialization must have excellent communication skills and will work directly with faculty, other researchers, and staff within the University and with appropriate individuals within the industrial and venture sectors to assure efficient transfer of technology. Minimum qualifications include an undergraduate degree, though an advanced degree such as an MBA is desirable and an in-depth business understanding of commercializing early-stage advanced technologies. A knowledge of intellectual property licensing including drafting and negotiating license and/or research agreements is essential. In addition, experience in university-industry interaction and in technology marketing or product management, preferably in the biomedical-biotechnology arena, is desirable.

Salary is competitive and will depend upon qualifications and experience.

Applicants should send a letter of application, a complete resume and salary history to: **Robert K. Bickerton, Director, Office of Cooperative Research, Yale University, 246 Church Street, Suite 401, New Haven, CT 06510.**



Yale University

Yale University is an Affirmative Action,
Equal Opportunity Employer.

SUCCEEDING TOGETHER

Research ♦ Treatment ♦ Education

The Ontario Cancer Institute is one of North America's largest cancer research and treatment centers and houses the Department of Medical Biophysics of the University of Toronto.

Senior Scientists

MOLECULAR AND STRUCTURAL BIOLOGY

The institute invites applications for senior scientist positions in the Division of Molecular and Structural Biology. This newly established division is part of a major expansion into structural biology in the Toronto area and has state-of-the-art instrumentation for macromolecular crystallography, high resolution multi-dimensional NMR spectroscopy, electron microscopy, molecular biology and protein chemistry. Research interests include protein-protein and protein-DNA interactions, membrane transport and drug resistance, antibody-ligand interactions and structure-function relationship of biologically active polypeptides.

Candidates are sought with expertise in areas complementary to the current staff, for example, in one or more of the following technical areas: theoretical/computational studies of macromolecular structure, protein chemistry and engineering, or macromolecular crystallography. The successful applicant will be eligible for a faculty appointment at a level appropriate for his/her experience in the Department of Medical Biophysics, a graduate department of the University of Toronto which stresses strong multi-disciplinary research. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. All qualified candidates are encouraged to apply.

Applicants are invited to send their curriculum vitae, a brief description of research interests, and the names of three references to: **Dr. Victor Ling, Ontario Cancer Institute/Princess Margaret Hospital, 500 Sherbourne St., Toronto, Ontario, Canada, M4X 1K9.**

**Ontario Cancer Institute
Princess Margaret Hospital**

POSITIONS OPEN

DIRECTOR OF EDUCATION HARBOR BRANCH OCEANOGRAPHIC INSTITUTION (HBOI)

With the completion of the new J. Seward Johnson Marine Education and Conference Center, HBOI, seeks an experienced educator to organize and direct educational programs at the undergraduate, graduate and postdoctoral levels and to oversee the use of the facility for professional conferences. The candidate should have a Ph.D. in science or engineering, experience as a university teacher in the marine sciences or related fields, and experience as an educational administrator. The director, who answers to the managing director of the institution, will be responsible for building and strengthening formal affiliations with major universities, organizing a year-round program of courses and conferences, recruiting students and postdocs, generating external funds for new and existing programs, and supervising a small staff, which will include an individual directly responsible for conferences. Although the director is expected to focus on university and postdoctoral programs, he or she may also seek funding for outreach programs involving younger students and for the training of science teachers.

The education program is housed in a new 21,000-square-foot building with a 350-seat auditorium, state-of-the-art video and projection facilities, satellite uplink/downlink capabilities, modern teaching laboratories, classrooms, wet laboratories, bookstore and administrative offices. Harbor Branch has offered postdoctoral fellowships and undergraduate internships in the marine sciences for the past 20 years and initiated a summer teaching program for graduate students in 1990. The not-for-profit institution, founded in 1972, operates ocean-going ships and submersibles and supports research programs in aquaculture, ocean engineering, biomedical marine research, coastal sciences, oceanography, and environmental sciences.

Submit complete curriculum vitae and names, addresses and telephone numbers of at least three referees by 15 April 1992 to:

**Dr. Craig M. Young, Search Committee Chair
Harbor Branch Oceanographic Institution, Inc.
5600 Old Dixie Highway
Ft. Pierce, FL 34946**

Harbor Branch Oceanographic Institution, Inc., is an Equal Opportunity and Affirmative Action Employer.

FACULTY POSITIONS IN BIOMEDICAL ENGINEERING. New tenure-track positions available after 1 July 1992. Candidates must have earned a doctoral degree, must have demonstrated independent research productivity, and must be capable of attracting peer-reviewed research support. Although consideration will be given to candidates with research interests in all areas appropriate to biomedical engineering, we are particularly interested in the following areas: neural modeling, hearing science, biotechnology and biomaterials, biomedical sensors, biomedical imaging and molecular and cellular systems physiology, by which we mean the application of both cellular and molecular biology and engineering analyses to biomedical problems.

The major focus is on research. Modest teaching duties include participating in strong undergraduate, graduate and medical programs. Qualified candidates should submit curriculum vitae, list of publications, up to three selected reprints and the names of three referees whom we can contact.

**Department of Biomedical Engineering
The Johns Hopkins School of Medicine
720 Rutland Avenue
710 Traylor Building
Baltimore, MD 21205**

The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK POSITION IN BIOLOGY. Fisk University is seeking applicants for a position in the Department of Biology. Requirements for this position are a Ph.D. in biology, with training in biotechnological methods. Teaching and research appropriate to a master's level degree program expected. Applications will be accepted until the position is filled. Send letter of application and curriculum vitae to: **Dr. Ormond Smythe, Dean, Office of Academic Affairs, Fisk University, Nashville, TN 37208.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

TENURE-TRACK APPOINTMENT, VASCULAR BIOLOGY. The Department of Radiology at the University of Pennsylvania School of Medicine has a tenure-track position effective July 1992. Candidates with a Ph.D. and expertise in endothelial biology or cellular biology of vascular cells will be considered. The candidate will join a large research department with areas of interest in cardiovascular imaging, magnetic resonance imaging, and interventional radiology. Successful candidate will be expected to establish an extramurally funded research program. Academic rank and salary will be commensurate with experience. Interested parties should forward curriculum vitae, summary of research interests, and three letters of reference to: **Michael Pentecost, M.D., Department of Radiology, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

TWO BIOLOGY FACULTY POSITIONS

(1) **HUMAN ANATOMY INSTRUCTOR** (non-tenure track). Candidates should have experience in human anatomy and preferably a Ph.D., but applicants with a master's degree and appropriate experience will be considered. Responsibilities will include teaching human anatomy and supervision of associated laboratories. Preference will be given to applicants who have experience with cadaveric dissection. Review of applications will begin 1 June 1992 and continue until position is filled. Desired starting date is 1 September 1992 (negotiable). Applicants should submit curriculum vitae, names of three references, and a brief statement of teaching competency.

(2) **VERTEBRATE PHYSIOLOGIST** (tenure-track assistant professorship). Candidates should have postdoctoral training in vertebrate physiology. Responsibilities will include teaching vertebrate zoology and human physiology, establishing an independent research program, and participating in graduate education. Preference will be given to applicants working in the area of cellular physiology or physiological ecology. Review of applications will begin 1 July 1992 and continue until the position is filled. Desired starting date is 1 January 1993 (negotiable). Candidates should submit curriculum vitae, statement of research interests, and names of three references.

Forward application materials to: **Dr. Daniel D. Jones, Chair, Department of Biology, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294-1170.**

The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR BIOLOGIST

The Division of Renal Diseases and Hypertension at the University of Colorado Health Sciences Center is seeking a molecular biologist at a **FACULTY LEVEL** position commensurate with experience. The investigator will be expected to have expertise in the application of molecular biological approaches to the study of signal transduction mechanisms, hormone action and/or gene expression. Candidates should demonstrate a commitment to excellence in research and ability to interact with other members of the department. Candidates will be expected to establish an independently funded research program. Both M.D. and Ph.D. candidates, *particularly women and minorities, are encouraged to apply.* Interested candidates should send curriculum vitae, a brief summary of current and future research interests, and the names of three references to: **Dr. Tomas Berl, Renal/Medicine, Box C281, 4200 East 9th Avenue, Denver, CO 80262.** *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

NEUROBIOLOGIST. A 1-year position with the possibility of continuation on a tenure track available fall 1992. Teaching duties include neurobiology, physiology, introductory biology, and direction of student research projects. Research facilities and equipment funds available. We seek an individual with demonstrated excellence in teaching and research, and a commitment to liberal arts education. Send credentials and three letters of recommendation to: **Dr. Glen Wurst, Biology Department, Allegheny College, Meadville, PA 16335.** *Equal Opportunity Employer.*

POSITIONS OPEN

NEUROSCIENTISTS, CELL AND MOLECULAR BIOLOGISTS. Tenure-track faculty positions open in gross and microscopic anatomy. Research interest in neurosciences, cell and molecular biology. Rank and salary commensurate with experience. Research start-up funds available. Send curriculum vitae, statement of research interests, and the names and addresses of three references to: **Dr. James C. Story, Chairman, Department of Anatomy and Cell Biology, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208,** by 1 May 1992. *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN MACROMOLECULAR CRYSTALLOGRAPHY

Texas A&M University invites applications at all academic levels for a tenure-track position in the area of macromolecular structure. The position is within the Department of Biochemistry and Biophysics and the Center for Macromolecular Design of the Institute of Biosciences and Technology of Texas A&M University. Substantial resources are available to establish a new program in the area of protein or nucleic acid structure, complementing existing programs. We request that applications be submitted prior to 15 April 1992. However, applications will be accepted until the position is filled. Applicants should submit curriculum vitae, a description of research plans and the names of three references to:

**Dr. Thomas O. Baldwin, Director
Center for Macromolecular Design
Department of Biochemistry and Biophysics
Texas A&M University
College Station, TX 77843-2128
Telephone: 409-845-1782; FAX: 409-845-9274
email BALDWIN@TAMBIGRF**

Texas A&M University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. Two positions available spring/summer 1992 for individuals with training in molecular biology and/or protein chemistry to study (1) ubiquitin-mediated regulation by site-directed mutagenesis and (2) conjugation by an interferon-induced ubiquitin homology. To apply, send curriculum vitae and names of three references to: **Arthur L. Haas, Ph.D., Department of Biochemistry, The Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION. NIH-funded fellowship, restricted to American citizens or permanent residents, involves molecular characterization of T-cells and their interaction in human skin focusing on autoimmune diseases and cutaneous T-cell lymphoma. Experience in molecular biology required. Send curriculum vitae and references to: **Stuart R. Lessin, M.D., Department of Dermatology, University of Pennsylvania, 238 Clinical Research Building, 422 Curie Boulevard, Philadelphia, PA 19104.** *FAX: 215-573-2033.* *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Postdoctoral position available immediately to study reaction mechanisms of DNA repair enzymes. Interdisciplinary, interactive group at the University of Vermont's Markey Center for Molecular Genetics, Department of Microbiology and Molecular Genetics, Burlington, VT 05405. Contact: **Drs. Yoke Wah Kow or Susan Wallace at 802-656-2164.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available in the Oral and Maxillofacial Surgery Department at the University of California Los Angeles School of Dentistry, in the area of wound healing and extracellular matrix remodeling. Experience in biochemistry and molecular biology is required. Application should include recent curriculum vitae, three letters of recommendation and a statement of research interest. Position will be available 1 May 1992. Please send complete applications to: **Dr. Diana V. Messadi, UCLA School of Dentistry, CHS 20-118, 10833 LeConte Avenue, Los Angeles, CA 90024-1668.**

Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH/
TEACHING FELLOWSHIPS
INTEGRATIVE NEUROBIOLOGY,
ECOLOGY
BRYN MAWR COLLEGE**

The Department of Biology and the Neural and Behavioral Systems Group have available two two-year postdoctoral fellowships for scientists who aspire to careers in which research and teaching are understood to be complementary and mutually supportive activities. One position requires a background in behavioral, physiological, or theoretical ecology, and the other a background in integrative neurobiology. Both Fellows will be expected to contribute to the intellectual and research activities of the Neural and Behavioral Systems Group, which is dedicated to trying to find and communicate productive ways to characterize complex biological systems at all levels of organization (cf. *Experientia* 44:960, 1988). Part of this activity may involve continuing research in the Fellows' own most immediate area of interest. Fellows will also be expected to participate in the teaching programs of the Department, offering courses in their own area of expertise.

Applicants should send a letter of interest, curriculum vitae, and the names of three references to: Paul Grobstein, Department of Biology, Bryn Mawr College, Bryn Mawr, Pennsylvania 19010.

Bryn Mawr College is an Equal Opportunity/Affirmative Action employer. It encourages applications from women and members of minority groups, and seeks employees who both respect and appreciate human diversity. The post-doctoral fellowship program is a Bryn Mawr College Tide-Pool activity.

**ELSEVIER SCIENCE
PUBLISHING COMPANY
CAREER IN PUBLISHING**

Elsevier Science Publishing Co., Inc. is the U.S. company of the international Elsevier Science Publishers group, one of the world's largest scientific, technical and medical publishers.

We are seeking a recent graduate for a training program leading to a career in scientific journals publishing.

This program will provide a unique opportunity to learn all facets of scientific/technical/medical publishing leading to a position in editorial product development or marketing.

The successful candidate will have an advanced degree in science, ideally combined with relevant business qualifications, be able to demonstrate a strong commercial awareness, have good interpersonal skills and be internationally mobile. Post-university work experience is not essential.

Send letter describing your qualifications and interest along with your resume to:

**Director of Personnel
Elsevier Science Publishing Co., Inc.
655 Avenue of the Americas
New York, NY 10010**

An Equal Opportunity Employer



Lecturer/Assistant Lecturer in Biochemistry

(Ref. RF/TA/Med/1)

Faculty of Medicine

An appointment will be made primarily on the basis of excellence and originality in research together with ability to teach selected areas from a wide range of subjects—including macromolecular chemistry, molecular and developmental biology, neuro- and membrane biochemistry, signal transduction mechanisms and immunology—to medical and dental students.

Annual salaries (superannuable) are on the following scales:

Non-Clinical:	Lecturer (L)	HK\$309,120-516,480 (11 points) (£22,191-£37,077)
	Assistant Lecturer (AL)	HK\$225,180-288,180 (4 points) (£16,165-£20,688)
Clinical:	Lecturer (L)	HK\$292,980-589,740 (11 points) (£21,032-£42,336)

Sterling equivalents as at 14 January 1992. Starting salaries depend on qualifications and experience.

Conditions of Service

Appointments are normally made on permanent, superannuable terms, subject to a period of probation of not less than 33 months. Staff benefits include generous leave provisions, medical benefits and children's education allowances; housing assistance is also provided in most cases at a charge of 7.5% of salary.

Enquiries

Further particulars and application forms may be obtained from Appointments (40267), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, UK; or from the Secretary of the Faculty (fax (852) 855 9742). For all other general enquiries, please contact the Assistant Registrar (Staff Appointments) either by phone (852 5499147: 24 hour service) or fax (852 5592058) or e-mail (APPTUNIT@HKUVM1.HKU.HK) or by mail (Appointments Unit, Registry, University of Hong Kong, Hong Kong). **All enquiries should quote the reference number and the title of the post in question.**

Applications close: **6 May 1992**

Gene Therapy

Genetic Therapy, Inc. has been involved, through its collaborators at the National Institutes of Health and at other major research institutes, in the first clinical testing of retroviral-mediated gene transfer and therapy. GTI is currently undergoing expansion of its research activities and has several positions available immediately for researchers at the postdoctoral, research scientist and group leader levels. Applicants should have a Ph.D. or M.D. degree and a demonstrated ability to conduct productive research in molecular and/or cell biology. Scientists with expertise and training in one or more of the following areas are particularly encouraged to apply: 1) Molecular approaches to the study of cardiovascular disease, 2) Molecular biology of virus-host cell interactions, 3) Gene transfer using viral and non-viral vectors, or 4) Tissue specific regulation of gene expression. GTI offers a stimulating work environment and competitive salaries and conditions. Applicants should send their resumes, and the names and addresses of 2 references to:



GTI is an equal opportunity employer.

**Genetic Therapy, Inc.
Human Resources - MCB
19 Firstfield Road
Gaithersburg, MD 20878**

**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, automated 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:



GTI is an equal opportunity employer.

**Genetic Therapy, Inc.
Human Resources - GL3
19 Firstfield Road
Gaithersburg, MD 20878**

ZYMOGENETICS, INC., a Seattle-based biotechnology company making important strides in the areas of diabetes research, coagulation disorders, and tissue repair has a challenging opportunity available for a:

SCIENTIST YEAST SECRETION

Responsibilities will include the design and optimization of systems for expression of heterologous proteins by secretion from yeast and participation in the identification of new product opportunities in the areas of diabetes, hemostasis and wound repair.

Qualified applicants should possess a PhD and have industrial or post-doctoral experience in the field of protein secretion from yeast. Preference will be given to candidates with exposure to technologies relevant to high-level secretion of heterologous proteins or to molecular manipulation of the secretory pathway. The successful candidate should have good communication skills and a record of publications or patent applications in yeast genetics, protein secretion, or application of molecular biology to production of heterologous proteins.

ZymoGenetics offers intellectual challenge, state-of-the-art facilities, a strong connection with the University of Washington and an excellent benefits package. Interested applicants may send their CV/resume to: **ZymoGenetics, Inc., Attn: Human Resources, #13N192, 4225 Roosevelt Way NE, Seattle, WA 98105.**

ZYMOGENETICS

A subsidiary of Novo Nordisk A/S
ZymoGenetics is an equal opportunity employer and encourages applications from women and minorities.

DIVISION OF BIOLOGICAL SCIENCES THE UNIVERSITY OF CHICAGO

The Department of Molecular Genetics and Cell Biology, and the Department of Medicine of the Division of Biological Sciences of the University of Chicago invite applications for tenured (Professor, Associate Professor) or tenure track (Assistant Professor) positions in Virology. Successful applicants are expected to establish a strong program in basic research in Virology and to contribute to graduate education. Preference will be given to applicants with a Ph.D., M.D. or equivalent degrees with defined interests or established research programs in retrovirology although other areas of research on human and animal viruses will be considered. Appointees will be housed in the Marjorie B. Kovler Viral Oncology Laboratories, a modern facility designed and dedicated to research in Virology. Adequate start up funding will be made available to successful applicants. At least two appointments will be made. The deadline for submission of applications for the first appointment is May 1, 1992. The deadline for submission of applications for the second appointment is October 1, 1992.

Applicants are invited to submit a curriculum vitae, a statement of research interests and the names of three referees to:

The Virology Search Committee
The University of Chicago
910 East 58th Street
Chicago, IL 60637



THE UNIVERSITY
OF CHICAGO

An Affirmative Action Equal Opportunity Employer

Baxter Diagnostics Inc. is a worldwide leader in supplying innovative diagnostic reagents. Due to our recently formed Biotechnology Center located in Miami, Florida, we currently have the following opportunities available:

PROTEIN CHEMIST

Responsibilities will include purification and characterization of recombinant proteins, development of recovery processes for production of recombinant proteins and the production of clinical-grade protein following cGMP practices.

Research Scientist—Applicants must have a Ph.D. degree in Biochemistry or a related field with postdoctoral experience in the purification and characterization of proteins from bacterial or mammalian sources.

MOLECULAR BIOLOGISTS

Responsibilities will be in the area of cloning and expression of heterologous genes in microbial, mammalian and baculovirus systems.

Research Scientist—Applicants must have a Ph.D. degree in Molecular Biology and a minimum of 2 years experience in studying gene expression and regulation in mammalian cells.

Research Associate/Research Assistant—Applicants must have a B.S. or M.S. degree in Biochemistry, Microbiology or Genetics and a minimum of 2 years experience in gene manipulation.

DNA SEQUENCING

Responsibilities will include the determination of nucleotide sequences of cloned genes via chemical or chain termination methods.

Research Associate/Research Assistant—Applicants must have a B.S. or M.S. degree in Biochemistry or a related field with a minimum of 2 years experience in DNA sequencing. Hands-on experience with the ABI373A sequencer is highly desirable.

FERMENTATION MICROBIOLOGY

Responsibilities will include optimization and development of lab scale fermentation processes using recombinant microorganisms; and assistance in fermentation scale-up efforts from lab to pilot plant scale.

Scientist—Applicants must have a Ph.D. degree in Microbiology or Biochemical Engineering and a minimum of 2 years experience in optimizing lab scale fermentation processes using recombinant microorganisms.

Research Associate/Research Assistant—Applicants must have a B.S. or M.S. degree in Microbiology or a related field with a minimum of 2 years experience in bacterial fermentation.

OLIGONUCLEOTIDE SYNTHESIS

Responsibilities will include synthesis and purification of oligonucleotides to support the needs of the molecular biology group. The individual will be expected to develop strategies to synthesize and purify oligonucleotides containing modified bases.

Scientist/Research Associate/Research Assistant—Applicants must have a Ph.D., M.S. or B.S. degree in Chemistry with a minimum of 2 years experience in oligonucleotide synthesis and purification. Hands-on experience with the Applied Biosystems 380B DNA synthesizer is highly desirable.

We offer a highly competitive salary, an attractive benefits package and an excellent environment for exciting and high quality research in the healthcare area. For confidential consideration, please send your resume, indicating position of interest to: **Director, Human Resources, Baxter Diagnostics Inc., P.O. Box 520672, Mail Station #348, Miami, FL 33152-0672.** Equal Opportunity Employer. We conduct pre-employment drug screening.

Baxter Diagnostics Inc.

Baxter



THE UNIVERSITY OF IOWA VICE PRESIDENT FOR HEALTH SCIENCES

Position Announcement

The University of Iowa seeks candidates for the Vice President for Health Sciences. The Vice President, reporting directly to the President, will oversee all health science units of the University and will be responsible for the administration, planning, budgeting, coordination and review of those units. The Vice President will meet regularly with the President's Cabinet, the Provost, the collegiate deans and the Director of the University Hospitals and Clinics. He or she will therefore participate in policy making and budget decisions at the highest levels of the University. Those reporting to the Vice President include the Director of the University Hospitals and Clinics, the Dean of Dentistry, the Dean of Medicine, the Dean of Nursing and the Dean of Pharmacy.

The Colleges of Dentistry, Medicine, Nursing and Pharmacy are nationally prominent in research and clinical programs, extensive outreach and service activities, and major teaching and training programs. The Health Science Colleges employ approximately 4,000 people and serve an enrollment of 3,200 students.

The University of Iowa Hospitals and Clinics, one of the nation's largest university owned teaching hospitals, serves as the primary teaching hospital for the University's health science colleges. The UIHC also serves as the state's major tertiary care center, and is consistently ranked among the nation's finest hospitals. Its facilities and resources provide some 2,400 health science students the highest level of quality clinical training in 35 different programs.

The Health Science colleges and the UIHC are a major resource in this Big Ten institution. In the University's setting of 28,000 students and approximately 13,000 faculty and staff, the faculty of the four health colleges attracted \$88.2 million in research funding to the University in 1991. The combined operating expenses for fiscal year 1992 for the UIHC and the health colleges approximates \$540 million.

The University of Iowa seeks for this position an individual with a distinguished career in the health sciences. Applicants are expected to have an academic degree at the doctoral level in health sciences or health administration or an equivalent degree or level of achievement. It is important that the Vice President qualify for tenure in a University department. There should be evidence of managing complex organizations effectively and of ability to earn external funds for research, development, training and/or operations. Experience with educational training programs is desirable.

The Vice President should have a commitment to attracting a diverse student body, faculty and staff. Applicants should have experience in the leadership of an organization in which large financial responsibilities are involved. Candidates should have excellent communication skills and experience working across disciplines in the health sciences. It is expected that the Vice President will promote effective relationships not only within the University but also with relevant groups in the community, state and nation. The President and the Search Committee are particularly eager to identify qualified women and minority candidates.

The Search Committee will begin screening applicants on April 1, 1992. Nominations will be accepted until the position is filled. Please send nominations or applications to:

Richard P. Wenzel, MD, MSc
Professor of Medicine
Chair, Search Committee for the
Vice President for Health Sciences
101 Jessup Hall
The University of Iowa
Iowa City, IA 52242

The University of Iowa is an equal opportunity and affirmative action employer.

THE NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Announces a Conference in Honor of
Marshall Nirenberg

Genes and Development: Twenty-Five Years After Deciphering the Genetic Code

May 7 & 8, 1992
Masur Auditorium
National Institutes of Health
Bethesda, Maryland

The following speakers will lecture on transcription regulation, gene targeting, development, and homeotic genes.

W. French Anderson	Thomas P. Maniatis
David Baltimore	Steven McKnight
Paul Berg	Beatrice Mintz
Mario R. Capecchi	Robert Roeder
C. Thomas Caskey	Michael Rosenfeld
Pierre Chambon	Matthew Scott
Ronald Evans	Robert T.N. Tjian
Walter Gehring	Harold Weintraub
Peter Gruss	



No Registration Fee
Seating will be limited.
Preregistration by April 15, 1992, is required.
Call 301-468-6338.



MICROBIOLOGIST ANNOUNCEMENT

POST-DOCTORAL RESEARCH ASSOCIATE, MICROBIOLOGY (IMMUNOLOGY). Knipling-Bushland U.S. Livestock Insects Research Laboratory, Kerrville, Texas.

The United States Department of Agriculture, Agricultural Research Service is seeking a **MICROBIOLOGIST (IMMUNOLOGY)** to study bovine immune responses to insect pests of livestock. The incumbent will 1) determine immune mechanisms of cattle involved with host resistance to ectoparasites, 2) characterize biochemical and immunochemical properties of antigens from insect tissues, and 3) study the efficacy of immunogens in eliciting protective immune responses. Initial appointment, available immediately for 2 years, is paid at \$32,423 to \$50,516 per annum based on qualifications. Successful candidate must have obtained a Ph.D. prior to entrance on duty. For information on the research program/position and for information on application procedures/forms, contact Dr. Sidney E. Kunz at (512) 257-3566. Applications in response to this advertisement should be marked RA-2-009 (S-2-021). Applications will be accepted until position is filled.

Mailing Address:

USDA, ARS, Knipling-Bushland
U.S. Livestock Insects Laboratory
P.O. Box 232
Kerrville, TX 78029-0232

The USDA is an equal opportunity employer.

HUMAN GENOME RESEARCH POSTDOCTORAL POSITION

Roswell Park Cancer Institute has postdoctoral positions available in several areas concerning the molecular genetics of human chromosome 11. A major focus is the physical mapping and organization of genes on chromosome 11 using a chromosome 11 YAC library. Analysis includes contig assembly, fluorescent *in situ* hybridization (FISH) and direct isolation of genes from YACs.

Background must include training in molecular genetics.

Roswell Park is a National Cancer Institute-designated comprehensive cancer center. The Department of Human Genetics is an active research department with extensive interactions with researchers in other departments with modern molecular biology programs.

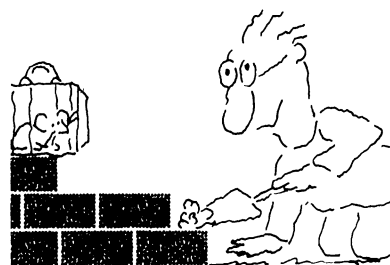
Buffalo, a Western New York city between Lakes Erie and Ontario, has the cultural amenities of a large city within minutes of a rural setting.

Please send a curriculum vitae, a brief description of research interests and three references to: Thomas B. Shows, Ph.D., Chairman, Department of Human Genetics, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, New York 14263.



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New Lab Service Department
1333 H Street, N.W.,
Washington, DC 20005

The Global Weekly of Research
SCIENCE

FACULTY POSITION IN DEVELOPMENTAL BIOLOGY

The Center for Advanced Biotechnology and Medicine (CABM) and the Department of Pediatrics, UMDNJ-Robert Wood Johnson Medical School are seeking an outstanding investigator for a joint appointment as a tenure-track associate or full-professor. Applicants should hold a PhD and/or MD degree and have a strong commitment to studying fundamental aspects of development including such topics as the regulation of cell growth and differentiation, mechanisms of gene expression in the immune system and the molecular genetics of inherited disorders. The successful candidate will occupy new laboratory space in the CABM building and join a growing life sciences community on the Busch campus where there are opportunities to participate in a variety of UMDNJ and Rutgers University graduate programs.

Please provide a CV, brief research plan and three references to Drs. Aaron Shatkin and David Carver, Co-Chairs, Search Committee, University of Medicine & Dentistry of New Jersey, 679 Hoes Lane, Piscataway, NJ 08854-5638. UMDNJ, New Jersey's university of the health sciences, is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



Molecular/ Cellular Biologist

Merck Research Laboratories in West Point, Pennsylvania, has an immediate opening for a senior research scientist who will investigate the cellular and molecular biology of smooth muscle proliferation and its regulation. The goal is to identify novel cellular targets against which pharmacologic therapy can be directed that inhibits vascular restenosis. The successful applicant will collaborate with an active interdisciplinary team and will be encouraged to publish.

The position requires an M.D. or Ph.D. in biochemistry, cell biology, molecular biology or a related discipline along with relevant post-doctoral and possible additional experiences. Other highly accomplished individuals will also be considered. A background in cellular growth control/differentiation or vascular cell biology would be advantageous but not mandatory.

Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles northwest of Philadelphia.

Please send curriculum vitae with cover letter to **Personnel Manager, Ad #D-8, Research Personnel, WP42-2, Merck Research Laboratories, West Point, PA 19486.**

EEO/AA/VH Employer

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company.



Associate Editor

The Proceedings Office of the National Academy of Sciences is seeking an associate editor for staff of a multidisciplinary semi-monthly scientific journal. Position requires a Ph.D. or equivalent in a biological or physical science or a related field, and at least 5 years of related experience. Excellent English skills required; some editorial experience desirable. Please send letter of application and curriculum vitae in confidence to: NRC/PNAS, 2139-207 (FZ), 2101 Constitution Avenue, N.W., Washington, D.C. 20418. EOE. Non-Smoking work environment.





A Proposal Development Officer is needed in the Office of Research and Technology of the Medical College of Wisconsin. This individual will conduct background research and develop proposals for submission to foundations, industry, government agencies and other potential funding sources in support of interdisciplinary research, education and service programs at the Medical College.

Applicants should have a Ph.D. and/or M.D. degree or equivalent with experience in scientific writing and proposal development. Please address inquiries to:

William R. Hendee, Ph.D.
Senior Associate Dean
for Research
Vice President for Technology
Medical College of Wisconsin
8701 Watertown Plank Rd.
Milwaukee, WI 53226
(414) 778-4402

CENTRAL CONNECTICUT STATE UNIVERSITY
New Britain, Connecticut 06050
BIOLOGICAL SCIENCES

Instructor/Assistant Professor—
Fall 1992—Pending Funding of Po-
sition. Tenure Track.—3 Positions

Animal Behavior

Aquatic Biologist

Geneticist—With specialization in eukaryotic systems.

To teach upper level courses appropriate to field or specialization and introductory courses and to conduct research appropriate to undergraduate and master's level interests.

Earned Ph.D. or award of Ph.D. no later than August 1993 and commitment to undergraduate and graduate education required. Credentials and experience substantially comparable to the above will also be considered.

Send letter of application, statement of teaching and research goals, and resume with names, addresses and telephone numbers of three references to Dr. Leeds Carluccio, Chairperson, Biological Sciences, CENTRAL CONNECTICUT STATE UNIVERSITY, New Britain, CT 06050-4010. Review of candidates will begin on April 9, 1992. CCSU is an AA/EO employer. Women, minorities, the handicapped and veterans are encouraged to apply.



TRIPLEX PHARMACEUTICAL CORPORATION, a rapidly growing, well financed, biotechnology company focused on the design and commercial development of triple helix forming therapeutics for human use, has immediate employment opportunities available for highly motivated senior and research scientists on its viral and cancer therapeutic research and development teams.

MOLECULAR BIOLOGIST

Opportunities are available for PhDs with 2–5 years experience in the area of transcription control mechanisms including expertise using *in vitro* transcription systems and who have a proven publication record. The positions will require use of *in vitro* systems to determine activity and mechanism of action in triple helix forming oligonucleotides.

VIROLOGIST

Opportunities are available for PhDs with 2–5 years experience in molecular virology. Responsibilities will include the design and development of methodologies for screening oligonucleotides directed at HSV and CMV. Additional responsibility will include studying the molecular mechanism and action of triple helix forming oligonucleotides. [Experience in drug development, in the biotechnology or pharmaceutical industry is preferred.]

BIOCHEMIST

An opportunity is available for a PhD with 1–3 years experience in the study of nucleic acids interactions. Experience with novel bases and computer modelling of nucleic acids would be an advantage. Primary responsibility will be designing and testing oligonucleotide modifications that improve triple helix formation.

OLIGONUCLEOTIDE CHEMISTS

Opportunities are available for PhDs in Organic or Biochemistry with 3–5 years of experience in solid and solution phase synthesis of oligonucleotides. Preference will be given to candidates who demonstrate proven experience with large scale methodologies and a working knowledge of GMP regulations. Responsibilities will include initiating and implementing small and large scale oligonucleotide synthesis and purification as well as developing novel chemistries.

TRIPLEX is located in an attractive community north of Houston offering access to research centers such as Baylor College of Medicine, Texas Medical Center, Rice University, Texas A&M and the University of Houston. We offer competitive salaries and benefits, including equity participation, as well as opportunities for publication and rapid career growth in an exciting research program. For immediate consideration send C.V. to:

TRIPLEX PHARMACEUTICAL CORPORATION
Director of Administration
9391 Grogan's Mill Road
The Woodlands, Texas 77380
Fax: 713/363-1168

POSITIONS OPEN

FACULTY RESEARCH POSITIONS

Three full-time senior level faculty research positions available for experienced basic scientists with expertise in either **CARDIOVASCULAR PHARMACOLOGY**, **CELL BIOLOGY** or **VIROLOGY/MOLECULAR BIOLOGY** to participate in programs of hypertension, diabetes and retrovirology research, respectively. Applicants will become part of a research team consisting of pharmacologists, pharmacokineticists and pharmaceutical chemists. Successful candidates must have the Ph.D. degree and should be capable of independent research. Salaries: competitive. *Women and minorities are encouraged to apply. Applicant must have legal proof of authority to work permanently in the United States.* Send curriculum vitae and references by 31 March 1992 to: **Barbara Hayes, Ph.D., Chairperson, Division of Pharmaceutical Sciences, College of Pharmacy and Health Sciences, Texas Southern University (TSU), 3100 Cleburne, Houston, TX 77004.** TSU is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION, MAIZE MOLECULAR MARKERS. Position available immediately in molecular marker mapping of genomic regions controlling oil percentage in maize. Applicants with a background in plant breeding, quantitative genetics, biology, or molecular genetics will be considered. Send curriculum vitae, names and telephone numbers of four references to: **T. R. Rocheford, Department of Agronomy, University of Illinois, Urbana, IL 61801.** Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR GENETICS of the opportunistic pathogen *Toxoplasma gondii*. Position available immediately to identify and clone of selectable drug resistance markers for development of DNA transformation. Position requires Ph.D. and research experience in molecular biology. Familiarity with yeast and/or bacterial expression vectors desirable. Send curriculum vitae, summary of research experience, and names of three references to: **Dr. L. David Sibley, Ph.D., Department of Molecular Microbiology, Box 8230, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to study the biochemistry and molecular biology of mammalian sulfur and selenium methyltransferases. Candidates must have a Ph.D. with training and experience in biochemistry, molecular biology, toxicology, and/or nutrition. Please send curriculum vitae with names and telephone numbers of three references to: **Dr. Jerald Hoffman, Department of Biochemistry, School of Medicine, University of Louisville, Louisville, KY 40292.** Telephone: 502-588-5223; FAX: 502-588-6222.

POSTDOCTORAL POSITION GENETICS AND MOLECULAR BIOLOGY HARVARD

Available immediately to study illegitimate recombination and restriction enzyme mediated recombination in *Saccharomyces cerevisiae* [PNAS 88, 7585 (1991)]. Molecular biology and microbiology experience required. Send curriculum vitae and three letters of recommendation to: **Dr. Robert H. Schiestl, Department of Molecular and Cellular Toxicology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

POSTDOCTORAL FELLOWSHIP. The Emory University Alzheimer's Disease Center Core is recruiting a Ph.D. or M.D. to work on research projects relating to the neurobiology and pathogenesis of Alzheimer's disease. A background in neurobiology/neuropathology with experience in molecular biology and/or biochemistry is desirable. Available 1 July 1992 for up to 2 years. Salary commensurate with education and experience. Send cover letter stating research interests, curriculum vitae and names of three references to: **Dr. Suzanne Mirra, Department of Pathology and Laboratory Medicine, VA Medical Center (113), 1670 Clairmont Road, Decatur, GA 30033.** Emory University is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION

Dana-Farber Cancer Institute postdoctoral position available immediately to investigate the interaction of retroviruses with cells and host organisms. Predoctoral experience in molecular biology essential; working knowledge of immunology is highly desirable. Send curriculum vitae and names of three references to: **Dr. Ruth Ruprecht, Chief, Laboratory of Viral Pathogenesis, Dana-Farber Cancer Institute, 44 Binney St., Boston, MA 02115.** The Dana-Farber Cancer Institute is an affiliate of Harvard Medical School and is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE UNIVERSITY OF IOWA COLLEGE OF MEDICINE CFTR BIOLOGY, STRUCTURE, AND FUNCTION

Two positions are available to study the cell biology, structure, and function of CFTR. CFTR is the protein which is mutated in the genetic disease, cystic fibrosis. Work will also focus on gene therapy of cystic fibrosis. Positions will open in the summer and fall of 1992. Skills and cellular or molecular biology or patch-clamp electrophysiology are required. Send curriculum vitae with references to: **Michael J. Welsh, M.D., University of Iowa College of Medicine, 500 EMRB, Iowa City, IA 52242.** An Equal Opportunity Employer.

POSTDOCTORAL POSITION at Massachusetts Institute of Technology (MIT) available immediately to work on stability and stabilization of therapeutic proteins [see: *Proc. Natl. Acad. Sci. U.S.A.* 88, 9377 (1991) and *Biotechnol. Bioeng.* 37, 177 (1991)]. Strong background in protein biochemistry is required. Please send applications to: **Professor Alexander M. Klibanov, Department of Chemistry, Room 16-209, MIT, Cambridge, MA 02139.**

POSTDOCTORAL POSITION UNIVERSITY OF PENNSYLVANIA

A **POSTDOCTORAL ASSOCIATE** position is available for an individual interested in the study of developmental control of eukaryotic gene expression. Specific systems under study include the human globin and human growth hormone gene clusters. In vitro, cell-based, and transgenic systems are being utilized to analyze both pre- and post-transcriptional controls. Qualified candidates should possess a Ph.D. in molecular biology or genetics. Please send curriculum vitae and the names and telephone numbers of three references to: **Dr. Stephen A. Liebhaber, Department of Genetics, University of Pennsylvania School of Medicine, 422 Currie Boulevard, Philadelphia, PA 19104-6145.** We are an Equal Opportunity Employer.

POSTDOCTORAL POSITION VASCULAR MICROSURGEON

Vascular microsurgeon to perform heterotopic vascularized cardiac transplants in mice and rats, and coronary surgery in dogs. Applicant will monitor function of transplanted hearts, obtain electrophysiologic and hemodynamic data in dogs subjected to coronary artery obstruction and reperfusion, and investigate effects of pharmacologic agents on malignant ventricular arrhythmias. Must have M.S., Ph.D. or M.D. degree, with cardiac surgery as a major field of study. Experience required in microvascular surgery. Forty hours per week, Monday through Friday; \$26,000 per year. Send résumé to: **Utah Job Service, P.O. Box 11750, Salt Lake City, UT 84147-0750.** Job Order #2826016.

POSTDOCTORAL FELLOWSHIPS OR STAFF APPOINTMENTS to investigate the molecular, structural and cell biology of cellular receptors including those of the coagulation, cytokine and adhesive classes. Candidates should have demonstrated research productivity and experience in relevant topics. It is expected that candidates for staff appointments will have demonstrated success in competitive research funding. Forward curriculum vitae to: **Dr. Thomas Edgington, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037.** An Equal Opportunity Employer we encourage minority application.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS

The UNC Lineberger Comprehensive Cancer Center of the University of North Carolina at Chapel Hill will have openings in 1992-93 for persons completing graduate studies to train with excellent investigators in basic research in tumor virology, carcinogenesis, molecular therapeutics, cancer cell biology, genetics, and tumor immunology. Training is available in recombinant DNA technology, gene expression, DNA replication, mutagenesis, regulation of cellular proliferation, growth factors, molecular immunology, molecular genetics of cancer, and combined programs. Unique training resources and core facilities are housed in the NCI-designated UNC Lineberger Comprehensive Cancer Center. Preceptors are: Jane Azizkhan, Steven Bachenheimer, Albert Baldwin, Keith Burrridge, Stephen Chaney, John Cidlowski, David Clemmons, Marila Cordeiro-Stone, H. Shelton Earp, Jeffrey Frelinger, Frank French, Don Gabriel, Jack Griffith, Stephen Haskill, Geoffrey Houghton, Brian Herman, Eng-Shang Huang, Clyde Hutchinson, Kenneth Jacobson, Mary Ellen Jones, Rudolph Juliano, David Kaufman, Shannon Kenney, Ryszard Kole, Anthony Leadon, David Lee, Stanley Lemon, Edison Liu, Patricia Maness, William Marzluff, Beverly Mitchell, Howard Ozer, Joseph Pagano, Nancy Raab-Traub, James Raleigh, Aziz Sancar, Ralph Snodgrass, Ronald Swanson, Ronald Thurman, Jenny Ting, Thea Tlsty, Michael Topal, Judson Van Wyk, Jean-Michel Vos, Bernard Weissman and Richard Wolfenden. *Candidates must be U.S. citizens or permanent residents.* Send for brochure listing faculty and apply with curriculum vitae, three letters of recommendation, a statement of research interests and graduate school records to: **Joseph S. Pagano, M.D., Director, CB# 7295, UNC Lineberger Comprehensive Cancer Center, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7295.** UNC's Comprehensive Cancer Center is an Affirmative Action/Equal Opportunity Employer. Minority applicants are encouraged voluntarily to identify themselves.

POSTDOCTORAL FELLOW POSITION IN NEUROIMMUNOLOGY available for research on the alteration of nerve conduction by cellular and antibody-mediated immune function. Experiments utilize electrophysiological, optical, and ultrastructural approaches to analysis at the cellular and molecular level. Several inflammatory and demyelinating systems are explored. Candidates should have experience in at least one relevant area. Send curriculum vitae and the names of three references to: **Dr. Peter Shrager, Department of Physiology, University of Rochester Medical Center, Rochester, NY 14642-8642.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. Position available to study molecular biology of antioxidant enzymes, particularly superoxide dismutase, in cancer cells. Experience in cell culture, transfection, and hybridization desirable. Send curriculum vitae and names of three references to: **Dr. Larry Oberley, Radiation Research Laboratory, 14 Medical Laboratories, The University of Iowa, Iowa City, IA 52242; FAX: 319-335-8049.** The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. The research includes determination of the structure, three-dimensional conformation and dynamics of complex carbohydrates of glycoproteins and bacterial polysaccharides. Methods will emphasize computer molecular modeling and molecular dynamics simulation combined with NMR spectroscopy, especially heteronuclear multidimensional techniques. Other methods include circular dichroism spectroscopy along with high-pressure liquid chromatography for isolation and characterization of oligosaccharides. Candidates should send curriculum vitae and three letters of recommendation to: **C. Allen Bush, Department of Chemistry and Biochemistry, University of Maryland Baltimore County (UMBC), Baltimore, MD 21228.** UMBC is an Equal Opportunity/Affirmative Action Employer, and applications from qualified women, minorities and disabled candidates are especially encouraged. Applications will be received until a suitable candidate is found.

Molecular Biosystems, Inc. (MBI), a leader in the development and manufacturing of contrast agents for medical imaging, including ultrasound and MRI, is seeking qualified candidates for the following positions:

- **Sr. Research Scientist, Analytical-** PhD Analytical Chemistry w/ 8-10 yrs. pharmaceutical mgmt. Responsible for managing the activities req'd to develop medical diagnostic imaging agent products including product specifications & analytical methods, produce & evaluate product formulations.
- **2 Research Scientists-** PhD Biochemistry or related field. Min. 5 yrs. research, plus 1 yr. project management. (Emphasis in physical, analytical biochem or protein chemistry) Responsible for initiation, design & management of scientific research & product activities.
- **Preclinical Research Scientist-** PhD Physiology, Pharmacology or Toxicology w/ min. of 5 yrs. research exp. & familiarity w/ imaging modalities & animal research.
- **Research Scientist-** PhD Molecular Biology/Molecular Virology w/ 1-4 yrs. post doctoral experience. Management of technical & professional scientific personnel. Projects include bacterial, viral & genetic targets & various amplification procedures.

We offer competitive salaries, a comprehensive benefits package & a pleasant working environment. Qualified candidates should submit résumé with salary history to:

Molecular Biosystems, Inc.
Human Resources Department A27-92
10030 Barnes Canyon Road
San Diego, CA 92121



An Equal Opportunity Employer

National Institutes of Health
National Heart, Lung, and Blood Institute

HEALTH SCIENTIST ADMINISTRATOR

Respiratory Sciences Bethesda, Maryland

Airways Diseases Branch, Division of Lung Diseases, is seeking an experienced pulmonary physiologist, biochemist, cell/molecular biologist, or immunologist to provide administrative scientific support in the management and development of the branch's extramural grant program.

Candidates must have a M.D., Ph.D. or equivalent, postdoctoral research experience and a strong desire to pursue an administrative non-laboratory career track. Excellent written and verbal communication skills required.

The candidate selected will provide leadership for established national programs and develop new programs in his/her area of expertise. Areas of primary interest include chronic obstructive pulmonary disease (COPD), environmental lung diseases, and asthma. Other program areas include cystic fibrosis, respiratory neurobiology and sleep.

Applicants must be U.S. citizens. Appointment at a GS/12-14 level (\$38,861 to \$69,167) anticipated. Send curriculum vitae or Application for Federal Employment (SF-171) to:

Personnel Officer, NHLBI, National Institutes of Health,
Building 31, Room 5A28, 9000 Rockville Pike, Bethesda,
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The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC, represents Glaxo's commitment in the pharmaceutical industry to the discovery of drugs for unmet patient needs. Scientists engaged in Glaxo's expanding research and development programs at the Center have a premier facility in which to work. The following opportunity is now available within our Molecular Biochemistry Department.

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Glaxo Inc.



Molecular Biologists

CIBA-GEIGY Agricultural Division's Biotechnology Research Unit is respected worldwide for its research investigations in plant genetic engineering.

Scientist — Provide technical support within our Insect Control and Hybridization Technology Department. Participate in projects involving the expression of insect control genes in maize, constructing transformation vectors and analyzing transgenic maize plants. BS/MS in Molecular Biology, Genetics or a biological science, 2-4 years experience, and practical use of standard molecular biology procedures required.

Postdoctoral Associates — PhD's in Molecular Biology or Plant Science for studies in: regulation of plant gene expression; cloning Bt toxin receptors from insects and analyzing interactions of Bt toxins with receptors; regulation of inducible genes in plants; expression of genes involved in plant immunity; transformation of maize; or analysis of gene structural elements and their role in control of gene expression.

We offer excellent salaries and benefits. Please forward a resume, three letters of professional reference and transcripts, indicating position of interest, to: **Mary-Dell Chilton, CIBA-GEIGY Corporation, Agricultural Division, PO Box 12257, Research Triangle Park, NC 27709.**

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Research Scientist

Develop *in situ* hybridization based assays for the detection of chromosome abnormalities in pre-implantation embryos. Requires ability to recover single cells while leaving embryo undamaged and optimization of assays specifically for genetic disorders. Requires a Ph.D. with experience in *in situ* hybridization, pre-implantation genetics, and embryo biopsy and analysis.

Development Manager

Develop and test assays for clinical introduction, complete clinical trials, and transfer technology to our clinical laboratories. Involves close interaction with both research group and the laboratories. Will also identify and assess new methodologies and technological opportunities. Requires a Ph.D. or equivalent and 5 years' bench experience in DNA assay development. Must have strong background in molecular biology techniques (including FISH and PCR), QA/QC, and project/people management. Genetics experience and clinical lab or industry background preferred.

Research Associates - *in situ* Hybridization

Support development and technology transfer of *in situ* hybridization based diagnostic assays for chromosomal defects. Involves close interaction with basic research scientists and clinical laboratories, completion of clinical trials, and technology transfer to our service lab. Requires B.S./M.S. with experience in molecular biology and *in situ* hybridization.

Research Associates - FISH

Participate in the development of enhanced fluorescent *in situ* hybridization technology for use in prenatal diagnosis of maternal blood. Involves optimization of FISH parameters, sample preparation and analysis. Requires M.S./B.S. degree with strong experience in molecular biology and FISH. Cytogenetics background would also be useful.

Cell Biology

Experience in cell biology of the hematopoietic system; experience in human stromal cell characterization and/or CFU assays.

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Experience in cellular/molecular immunology and monoclonal antibody development.

Molecular Biology

Experience in recombinant DNA methodology, protein expression, vector construction and PCR procedures.

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE SENSORY NEUROBIOLOGY/ BIOENGINEERING

A postdoctoral position is available for an individual with a Ph.D. in neurophysiology, neurobiology, biophysics, bioengineering, or a related field. Current research projects involve the study of sensory transduction mechanisms in free nerve endings. Anatomical electrophysiological, pharmacological, and bioengineering approaches are used to look at mechanisms of cold, mechanical, chemical and pain transduction. Annual stipend is up to \$30,000 depending on experience. Applicants should send curriculum vitae and the names of three individuals who may be contacted for references to: **Dr. Darrell L. Tanelian, Ph.D., M.D., Department of Anesthesia, Room S288, Stanford University Medical Center, Stanford, CA 94305-5123. Stanford University is an Equal Opportunity/Affirmative Action Employer.**

THREE POSTDOCTORAL RESEARCH POSITIONS available in mechanisms of carcinogenesis of aromatic hydrocarbons and estrogens. Synthetic bioorganic chemist and/or analytical chemist/biochemist to synthesize, identify and quantify biologically formed DNA adducts. Biochemist/molecular biologist to study DNA adducts and sequence specificity of adducts and mutations. Competitive salary. Send curriculum vitae with names of three references to: **Professor Ercole Cavalieri, Eppley Cancer Institute, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6805. Affirmative Action/Equal Employment Opportunity.**

RESEARCH ASSOCIATE

Position available immediately for an M.Sc. or Ph.D. trained in molecular biology. Candidate must have extensive experience in recombinant DNA technology including library construction, Northern and Southern analysis, PCR analysis, DNA sequencing DNase footprinting and gel retardation assays. The major responsibility of this position will be the day to day supervision of a newly established molecular genetics core facility. This is a fully funded research position at the Morehouse School of Medicine and offers competitive salary, benefits, excellent research facilities and an ideal environment for career development. Please forward curriculum vitae and names of three references before 1 May 1992 to:

**Dr. Kelwyn Thomas
Department of Anatomy
Morehouse School of Medicine
Atlanta, GA 30310
FAX: 404-755-7318**

Women and minorities are encouraged to apply.



RESEARCH SCIENTIST

Grand Forks Human Nutrition Research Center, Grand Forks, North Dakota. The USDA, Agricultural Research Service, is seeking a person with a Ph.D. or M.D. to fill a lead scientist position with research leadership opportunities at the Human Nutrition Research Center located in Grand Forks, North Dakota, where a multidisciplinary research approach is used to develop recommended intakes of mineral elements nutrients for humans. The research assignment is to study factors affecting the bioavailability, retention and utilization of trace elements from food, and homeostatic regulation of trace element metabolism, thus ascertaining how these factors affect human nutrient requirements. Research will emphasize the use of stable and radioisotope methods to study trace element metabolism in human volunteers in an established, modern and well-equipped laboratory. *Must be U.S. citizen.* Salary is commensurate with experience, GS-12-GM-14 (\$38,861 to \$65,527). For information on research, contact: **Dr. Forrest H. Nielsen at 701-795-8456.** For application procedures/forms contact: **Julia A. Murchison, USDA, ARS, Personnel Division, 6305 Ivy Lane, Suite 318, Greenbelt, MD 20770-1435. Telephone: 301-344-3138.** Application in response to this advertisement should be marked. ARS-D-2-W-0020. Applications must be received by 20 April 1992. ARS is an Equal Opportunity Employer; women and minorities are encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Position available immediately to study conformation and dynamics of RNA in protein synthesis. Candidates should have a strong background in biochemistry, molecular biology or biophysical chemistry. Techniques presently used include photochemical cross-linking, site-directed mutagenesis, biophysical and functional measurements and computer modeling. Please send curriculum vitae and names of three references to: **Dr. Paul Wollenzien, Department of Biochemistry, Box 7622, North Carolina State University, Raleigh, NC 27695-7622. North Carolina State University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSISTANT II. Independently plan, prepare and conduct experiments using ultramicro perfusion of kidney tubule segments; collect and analyze data. Present reports to lab group and research conferences. Assist in preparing manuscripts, and research proposals. Assist in teaching methods to postdoctoral fellows and graduate students. Responsible for radiation safety, animal use and hazardous materials compliance. M.S. or M.D. (or M.D. equivalent) in medicine, physiology or pharmacology with 2 years of employment or medical residency with work and/or training in research to include clinical or laboratory research in nephrology and endocrinology. Experience in small animal surgery, light and fluorescence microscopy, immunofluorescent antibody techniques, and cell and tissue culture. Forty hours per week, 9:00 a.m. to 5:00 p.m. Salary: \$24,000 per calendar year. Contact: **Sandra Starnes, Alabama State Employment Service, 3440 Third Avenue South Birmingham, AL 35222, J.O. #AL0228721.**

RESEARCH ASSOCIATE. The Dave Garroway Laboratory for the Study of Depression at the Institute of Pennsylvania Hospital invites applications for a position in an ongoing longitudinal study of recurrent depression and bipolar illness. Candidates must have a Ph.D. in clinical psychology from an APA-approved program and must have completed an APA-approved predoctoral internship. A formal supervised postdoctoral training year is also required in an APA-approved training setting. Candidates must be license eligible in Pennsylvania. Applicants must have research experience examining predictive models of recurrent illness in medical and/or psychiatric populations as documented by publications or completed doctoral dissertation research. Knowledge of statistical and methodological issues related to prediction research is essential. Demonstrated clinical skills are necessary with particular experience in conducting comprehensive diagnostic evaluations of psychiatric illness utilizing semi-structured interviews (i.e., SCID or SADS), severity rating scales, organic screenings, and personality evaluations. Comprehensive psychological testing, including standardized objective and projective tests, required. We offer a competitive salary and excellent benefits package. Qualified candidate should submit résumé and three letters of recommendation to: **Dr. Alan M. Gruenberg, Director, The Dave Garroway Laboratory for the Study of Depression, The Institute of Pennsylvania Hospital, 111 North 49th Street, Philadelphia, PA 19139. Equal Opportunity Employer.**

NATURAL RESOURCE SCIENTIST

Argonne National Laboratory has a position available for a natural resource scientist whose primary training and background is in the application of remote sensing and geographic information systems (GIS) to studies of natural systems. The person selected will apply these skills in environmental assessment studies and develop a research program utilizing advanced techniques in spatial modeling, GIS and remote sensing. A computer laboratory with ERDAS, ARC/INFO, GRASS and other software operating on UNIX workstations will be available to the selected candidate. A Ph.D. in ecology, natural resource management or related discipline is required. Candidates must have strong writing, computational and statistical skills with a record of open literature publications and funded research. Applicants should submit their curriculum vitae, the name and addresses of three references, and a short statement of research interests by 20 April 1992 to: **Susan M. Walker, Employment and Placement, Box EID-94236-94237-55, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439. Argonne is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

SUBSTANCE ABUSE/ADDICTION RESEARCH ANALYST

The Office of Technology Assessment, a science and technology support agency in the U.S. Congress, is seeking an analyst for a new project on the root causes of prevention/substance abuse. Qualifications include a Ph.D., M.D. (preferred) or master's in psychology, social work, biology or related field; solid field experience in substance abuse/prevention/treatment; public policy experience; and excellent written/oral skills. Salary: \$30,000 to \$45,000 based on experience.

For consideration, please send curriculum vitae, cover letter, writing sample, and salary history to:

**Kevin O'Connor
Office of Technology Assessment
U.S. Congress
Washington, DC 20510-8025
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ASSOCIATE SCIENTIST. Responsible for conducting research and development in the treatment of Alzheimer's disease. Includes evaluating various chemicals, such as thyroid hormone and retinoic acid, in vivo, using aged and young small animals as model system. Responsible for injecting neurotoxin in precise part of the brain, and then treating animals with experimental drugs for induction of neurotrophic factors in the brain, dissection of the brain in order to analyze concentration of acetylcholine transferase and neurotrophic factors by biochemical and molecular biological methods, including polymerase chain reaction; dissection of brains and spinal cords from embryos to prepare neuronal cultures for drug screening; and obtaining brain slices from fixed specimens for immunohistochemical staining for acetylcholine esterase. Responsible for molecular biological manipulations of bacteria obtaining plasmid or bacteria phage lambda, which includes isolation of DNA, subcloning, analysis of plasmid and lambda DNA by restriction digest, Southern analysis, preparation of radiolabeled probes, and DNA sequencing. Master's degree in neurology and 6 years of experience as associate scientist or 6 years of experience as neurologist required. Will accept experience performed with the title of guest worker and/or visiting fellow. Experience must have included at least 5 years of research on Alzheimer's and Parkinson's diseases. Experience must also have included evaluating chemicals, in vivo, injecting neurotoxins in the brain, analyzing concentrations of acetylcholine transferase and neurotrophic factors by biochemical biological methods, and preparing neuronal cultures for drug screening. Forty hours, 8:15 a.m. to 4:55 p.m.; \$39,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Martha Cartagena, Reference #V-IL-4900. No calls. Send two copies of your résumé. An employer-paid ad.**

REPRODUCTIVE ENDOCRINOLOGIST. Responsible for designing, performing, evaluating and reporting experimental procedures on animals which characterize the effect of potential new drugs on hormonal control of reproductive function. Also responsible for planning, designing and executing experiments in animals to characterize the role of the brain and the pituitary gland in the hormonal control of ovulation in females and spermatogenesis in males. Responsible for designing, performing and evaluating experimental procedures in order to evaluate novel analogs of the hypothalamic neurohormone, gonadotropin-releasing hormone (GnRH). Ph.D. in physiology and 3 years of experience as reproductive endocrinologist or 3 years of experience as postdoctoral researcher required. Previous experience must have included developing a procedure to purify alpha fetoprotein (AFP) from human cord blood; establishing the different isoforms of AFP and developing a bioassay for AFP; performing research on GnRH and testing the inhibition of luteinizing and follicle stimulating hormone secretion in castrated monkeys. Forty hours, 8:15 a.m. to 4:55 p.m.; \$50,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Martha Cartagena, Reference # V-IL-4888-X. No calls. Attach two copies of your résumé. An employer-paid ad.**

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Electro-Mechanical Specialists

B.S.-level research associates needed with experience in small instrument manufacturing. The ability to interface with a new instrument development team is of particular importance.

Electrochemists

Ph.D. and M.S.-level scientists needed with experience in a broad range of electrochemical techniques for bioanalytical/medical applications. A familiarity with micro-machining, thin film deposition and photolithography is highly desirable.

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Ph.D. or M.S.-level scientists needed with experience in various biocompatible materials. Experience in coating electrodes for biomedical application is preferred.

Physicists

Ph.D. or M.S.-level scientists needed with experience in optics and instrumentation for low-level light detection.

Molecular Biologists

Ph.D. or B.S.-level scientists needed for DNA probe research with primary focus on the amplification of signal and target using methods currently under investigation. Experience with DNA chemistry/biochemistry is necessary; microbial genetics background and/or experience with antibody-based assays is preferred.

We offer a competitive salary and comprehensive benefits package. For immediate consideration, please send your resume and salary history to IGEN, Inc., Attention: Human Resources, 1530 East Jefferson Street, Rockville, Maryland 20852.

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New England Biolabs, Inc., a world leader in the production of restriction endonucleases and other related products for the recombinant DNA field, has several positions available for Postdoctoral level and entry level scientists.

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Successful candidate will apply molecular biology techniques to the production of novel proteins. Candidates will have a background in molecular genetics, protein secretion in gram-negative bacteria, overexpression of proteins in *E. coli*, and protein purification.

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Successful candidate will study restriction-modification systems from and in *Streptomyces*. Candidates should have a background in prokaryotic genetics and experience in molecular biology techniques such as S1 mapping, RNA isolation and Northern analysis. While previous experience with *Streptomyces* is not required, it would be advantageous.

Molecular Biology:

Successful candidate will work on self splicing introns in *Archaea*. Candidates are required to have experience in cloning, DNA sequencing and RNA techniques.

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Human Resources

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Applicants should send curriculum vitae and reference to: Alan H. Bennett, M.D., Head, Division of Urologic Surgery, Chair, Ophthalmology Search Committee, Albany Medical College, A-61, 47 New Scotland Avenue, Albany, New York 12208.

Albany Medical College is an equal opportunity/affirmative action employer. Minorities and women are encouraged to apply.

ALBANY MEDICAL CENTER

RESEARCH ASSISTANTS: Penn State University invites applications for two research assistant positions. Applicants must have a Ph.D. in chemistry. The first position encompasses organometallic chemistry and catalysis and requires experience in hydrocarbon oxidation and functionalization, synthesis and characterization of air-sensitive metal compounds, kinetic and mechanistic studies, running catalytic reactions under high pressures using toxic gases, modern spectroscopic methods including NMR, IR, UV-Vis, GC, GC-MS, and X-ray, glove-box and vacuum-line techniques, and computer modeling. The second position encompasses organometallic and polymer chemistry, and catalysis and requires experience in organometallic chemistry of carbon monoxide and olefins, chemistry of conducting polymers, synthesis and chemical modification of polymers, synthesis and characterization of air-sensitive metal compounds, kinetic and mechanistic studies, running catalytic reactions under high pressures using toxic gases, modern spectroscopic methods including NMR, IR, UV-Vis, GC, GC-MS, and HPLC/GPC, glove-box and vacuum-line techniques, and computer modeling. Both positions require record of relevant publications in refereed journals and demonstrated research ability. Salary range: \$22,000–\$25,000, plus standard university benefits package. Work location: University Park, PA. Application deadline: April 20, 1992. Send application, resume, copies of publications, and two letters of recommendation to: **Dr. A. Sen, Department of Chemistry, The Pennsylvania State University, 152 Davey Lab, Box SCI, University Park, PA 16802.** An Affirmative Action/Equal Opportunity Employer. Women and Minorities Encouraged to Apply.

POSITIONS OPEN



Agricultural Research Service
United States Department of Agriculture

RESEARCH PLANT PATHOLOGIST/MICROBIOLOGIST. Sugarbeet, Bean and Cereal Research Unit, located on the Michigan State University campus, East Lansing, Michigan, is seeking an individual to conceive, develop, and execute a basic and collaborative applied program of microbiological and pathological studies relating to the foliar pathogens of dry edible beans. Incumbent will apply a molecular genetic approach to develop a better understanding of host-parasite interaction and host specificity, leading to new means of solving problems in disease epidemiology and disease control through varietal selection and manipulation. The research assignment requires fully professional knowledge of plant pathology, basic botany, molecular biology, microbiology, and genetics. Candidates must possess (1) a degree in directly related fields, or (2) a combination of education and experience. Additional directly related graduate education and/or directly related professional experience required. Salary commensurate with experience (\$32,423 to \$46,210); GS-11/12/13. *U.S. citizenship is required.* Individuals with appropriate education and/or experience should inquire by telephone between 9 a.m. and 3 p.m. at 301-344-1858; identify ad #2N035. Incomplete applications will not receive consideration. Completed applications must be postmarked by 1 May 1992. *USDA/ARS is an Equal Opportunity Employer.*

RESEARCH SCIENTIST, 40 hours per week, 8:15 a.m. to 5:00 p.m.; \$36,740 per annum. Design and operate bioreactors in order to achieve biological remediation of Polynuclear Aromatic Hydrocarbon contaminated soils. Conduct economic analysis for process scale-up. Prepare mixed cultures and viable plate counts. Conduct research using a number of experimental techniques including Soxhlet extraction, solvent extraction and solvent concentration. Master's of science in chemical engineering and 6 months of experience as research scientist or research assistant required. Must have at least one graduate course in each of the following areas: hazardous waste management, adsorption and biochemical engineering. Previous experience must include work involving the biodegradation of crude oil by addition of foreign microbes and the use of an Electrolytic Respirometer. *Must have proof of legal authority to work permanently in the United States.* Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Martha Cartagena, Reference # V-IL 4872.** No calls. Attach two copies of your résumé. *An employer-paid ad.*

RESEARCH SCIENTIST

An internationally respected organization specializing in human genetics and fertility seeks an experienced biologist. Ph.D. or equivalent experience and recombinant DNA background are essential. Background in cell culture or cellular analysis desirable. Please send confidential résumé with application letter to: **Genetics and IVF Institute, Attention: Personnel G/L, 3020 Javier Road, Fairfax, VA 22031 or FAX: 703-698-3977.**

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POSITIONS OPEN

PARKINSON'S DISEASE RESEARCHER. Salary: \$28,000 per year. Research mechanism of MPTP-induced parkinsonism in animal and cell culture models by performing biochemical and pathological methods and studies and epidemiological studies. Ph.D. in neuroscience. Six months to 1 year of experience. Experience establishing pathological animal and cell culture models, performing HPLC and chemiluminescence techniques, dissecting animal and human central nervous system tissue and brains, and using high-power microwave device. Jobsite/interview: San Jose, California. Send ad with résumé to: **Job #ET3408, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 4 April 1992.

COURSES AND TRAINING

HYPERTENSION SUMMER SCHOOL

13 to 18 September 1992, Château de Maffliers, France. Co-sponsored by the International Union of Pharmacology (IUPHAR); The World Hypertension League (WHL); The TRANSGENEUR Program of the European Community; The Collège de France/INSERM, Paris; The German Institute for High Blood Pressure Research, Heidelberg.

This is a 1-week residential course in English for recent M.D. and Ph.D. graduates beginning a career in clinical and experimental high blood pressure research. Topics will include: genetics of human and experimental hypertension; vascular endothelium; sympathetic mechanisms in hypertension; renin-angiotensin system; clinical pharmacology of hypertension. Maximum class size will be 20 students. Faculty: F. Alhenc-Gelas, Paris; P. Corvol, Paris; D. Ganten, Berlin; M. Lathrop, Paris; J. Ménard, Paris; J. B. Michel, Paris; J. Mullins, Edinburgh; M. Paul, Heidelberg; J. Reid, Glasgow; M. Safar, Paris; F. Soubrier, Paris; T. Unger, Heidelberg.

To apply please send by 15 May 1992 curriculum vitae with publication list, two letters of reference and a note indicating your scientific and personal interests and expectations from the course to: **Hypertension Summer School, German Institute for High Blood Pressure Research, Wielandstrasse 26, D-6900 Heidelberg, Germany. Telephone: +49-6221-409099, FAX: +49-6221-402485.** Course fee, including materials and accommodation is 200.00 German marks. A number of educational grants are available and students in need are encouraged to apply informally. The summer school is supported by an educational grant from The Parke-Davis Conference Series.

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SCIENCE

MEETINGS

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ANNOUNCEMENTS

BURROUGHS WELLCOME FUND AWARDS

The Burroughs Wellcome Fund offers two 5-year, \$350,000 scholar awards for researchers through the **Immunopharmacology of Allergic Diseases and Drug Design and Discovery Programs.** Deadline is 1 April 1992.

For application guidelines, contact: **The Burroughs Wellcome Fund, 3030 Cornwallis Road, Research Triangle Park, NC 27709. Telephone: 919-248-4136; FAX: 919-248-3052.**

The B. W. Fund is a nonprofit foundation supported by Burroughs Wellcome Co, a research-based pharmaceutical company.

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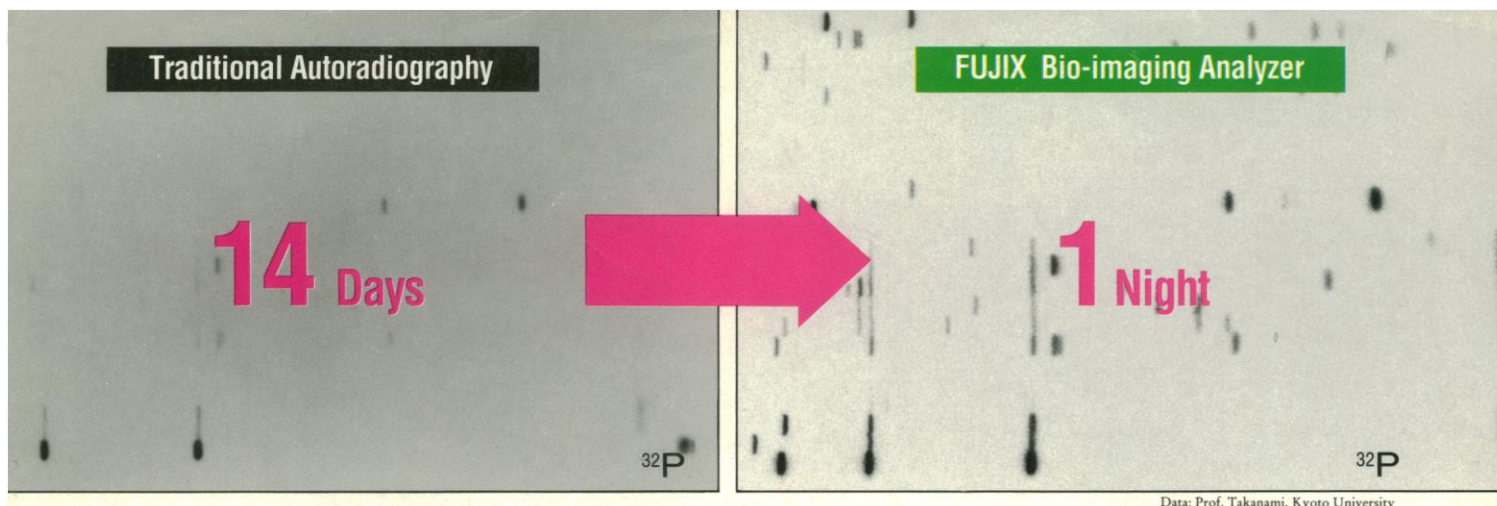
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\$7.50 per base • Purified
Guaranteed minimum 100 µg DNA

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Fuji's patented photostimulable phosphor Imaging Plate (IP) takes the place of traditional x-ray film to expose your radio-labelled sample. Image data exposed on the Imaging Plate is read by a laser and computer processed to detect minute amounts of substances often undetected by traditional autoradiography.

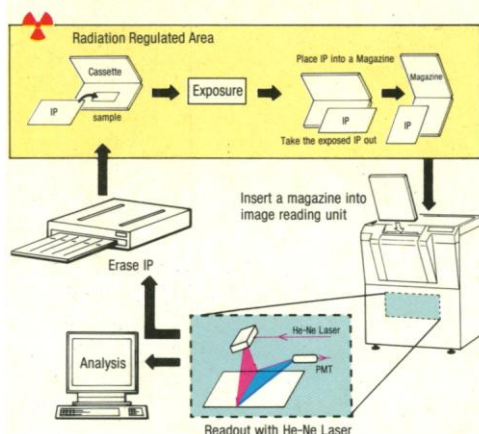
TODAY'S MOST SENSITIVE TECHNOLOGY

The erasable, reusable Imaging Plates are over 100 times more sensitive to radiation than conventional x-ray film. This greatly reduces exposure time and helps you get your results faster.

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The Reusable Imaging Plate (IP)



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FAST AND EASY TO USE

The powerful SPARCStation™ 2 provides high performance not only in overall speed but also in the display of detailed images on its high resolution monitor. The mouse-controlled image analysis software offers many functions including quantitation, molecular weight determination, contrast setting, magnification, and superimposition. Images are stored in the workstation's fixed storage or in a removable 150MB cartridge for later analysis.

SUPERIOR PUBLICATION QUALITY HARD COPY

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To learn more about how Fuji can accelerate your autoradiography or to arrange to evaluate the Fujix BAS2000 with your own samples, call Fuji Medical Systems—Biomedical Department toll-free 800-431-1850, (in CT 203-353-0300) or write: Fuji Medical Systems U.S.A., Inc., P.O. Box 4960, Stamford, CT 06907-0960.

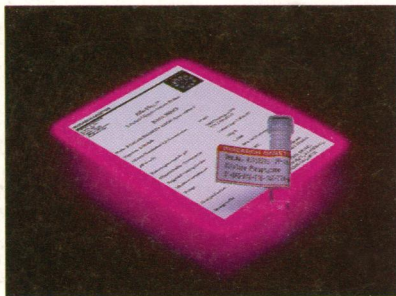


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- visualization using colorimetric or chemiluminescent methods •
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Custom DNA

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