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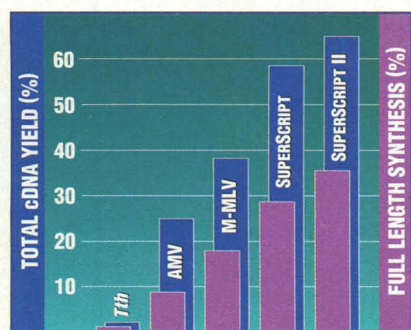
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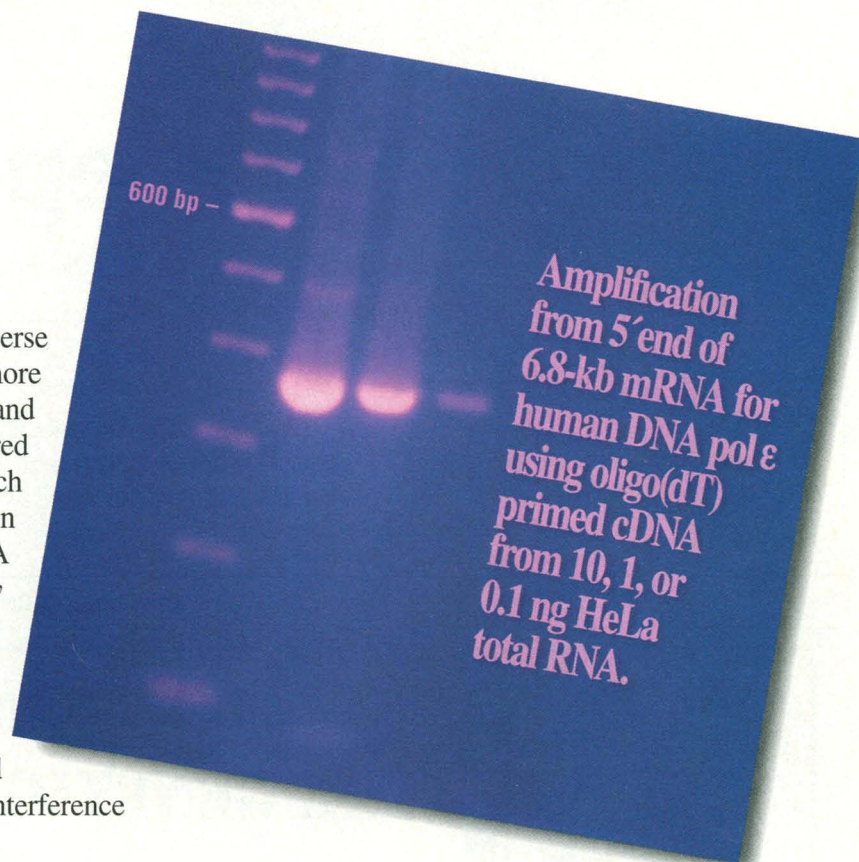
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Comparison of Reverse Transcriptases using 1 µg of a 7.5-kb RNA Template.



Amplification from 5' end of 6.8-kb mRNA for human DNA pol ε using oligo(dT) primed cDNA from 10, 1, or 0.1 ng HeLa total RNA.

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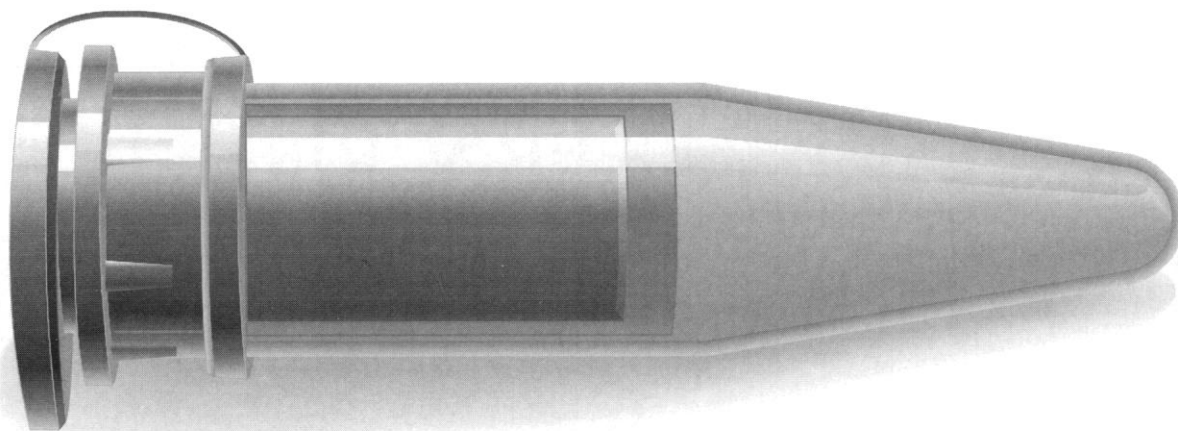
[†]U.S. Patent No. 5, 244, 797. SUPERScript™, TECH-LINE™, and the Life Technologies logo are marks of Life Technologies, Inc. For research use only. Not intended for human or animal diagnostic or therapeutic use.

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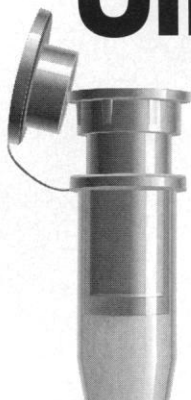
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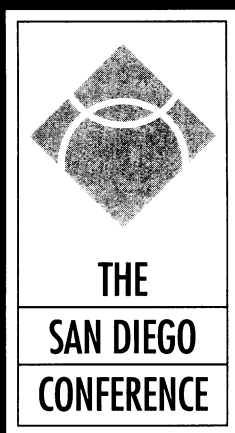
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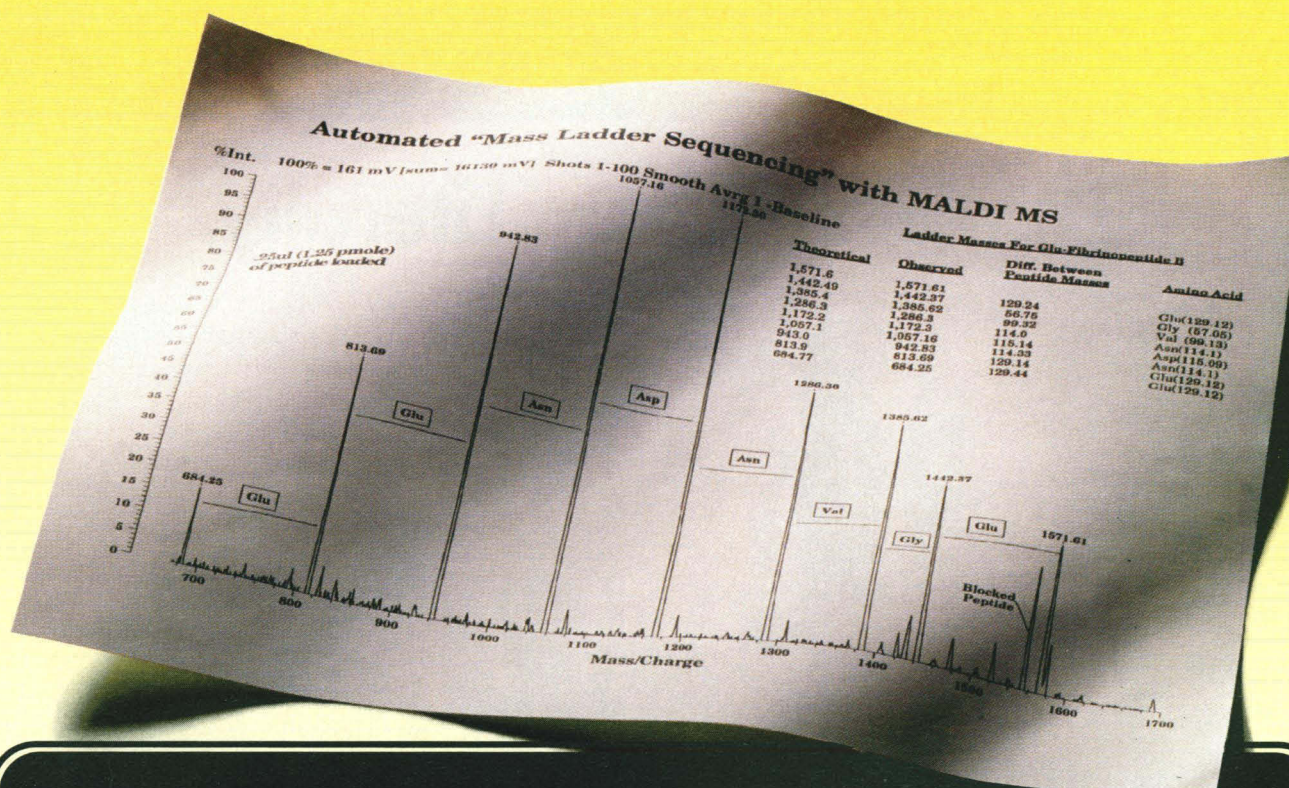
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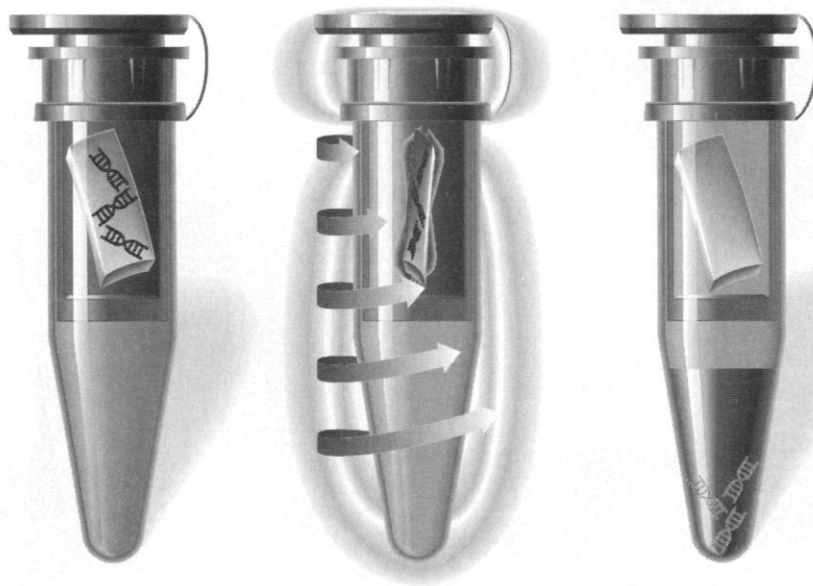
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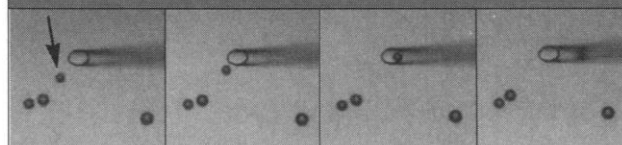
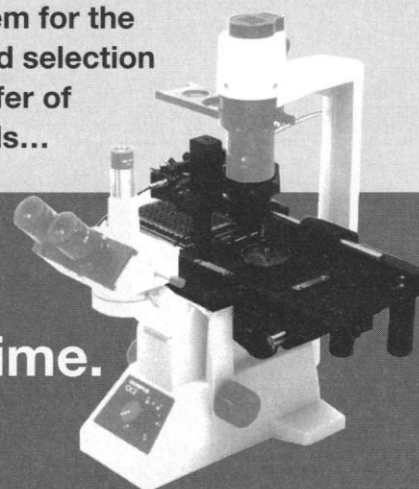
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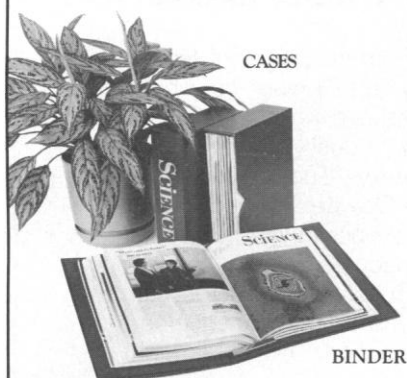
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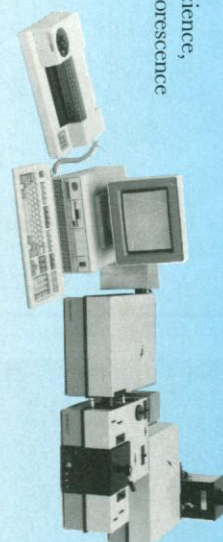
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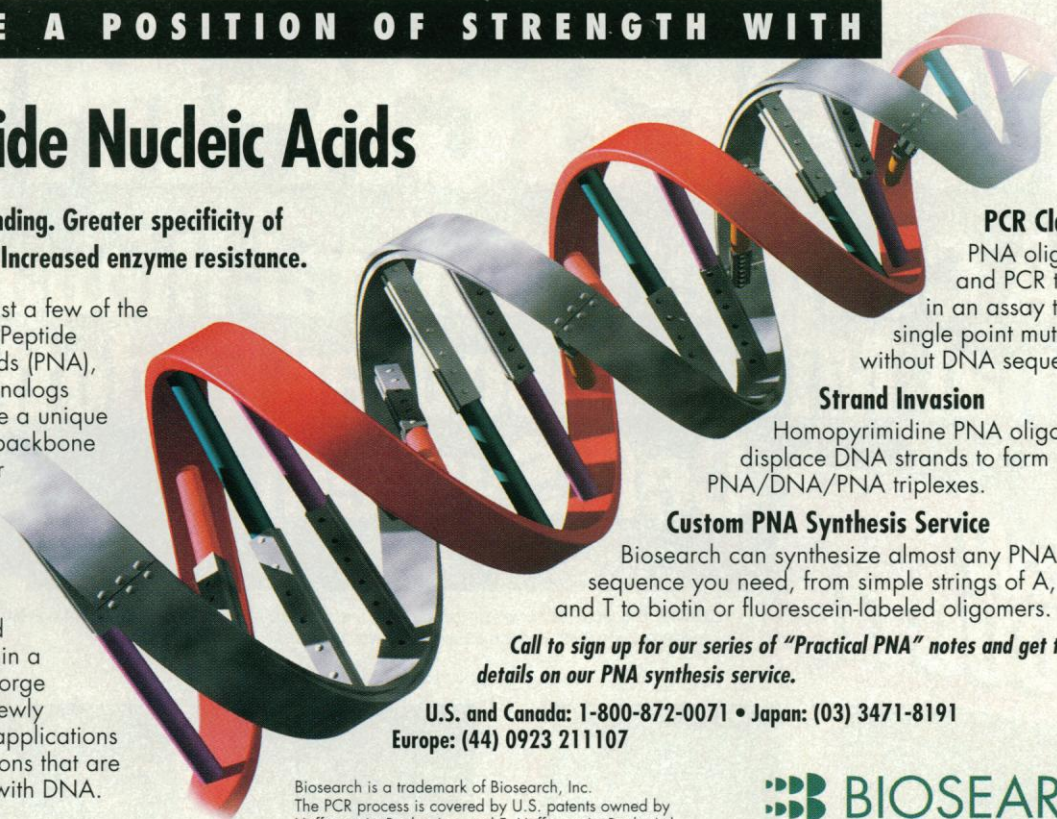
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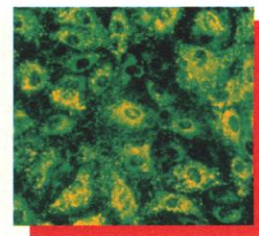
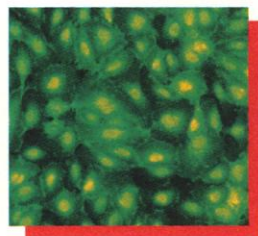
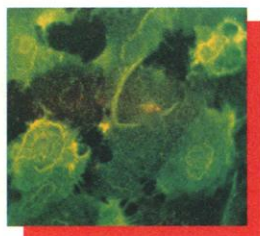
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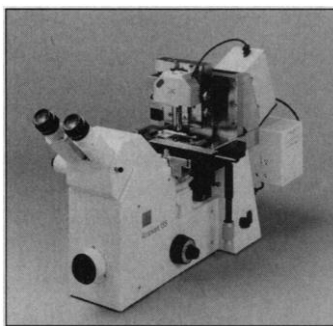
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Solve Your Matrix Interference Problems describes the Novo-Clean IC Disks, which remove interferences from samples before ion analysis by ion chromatography and capillary electrophoresis. **Alltech Associates. Circle 150.**

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ANTICIPATED

(two positions) ASSISTANT PROFESSOR- RESEARCH INSTRUCTOR RESEARCH ASSOCIATE- Postdoctoral Researcher

The Pennington Biomedical Research Center, a research facility of Louisiana State University (LSU) seeks qualified applicants to study Nutrient regulation of gene expression. Candidates should have doctoral degree in biological science and technical expertise in molecular biology. Prior postdoctoral experience is required for Assistant Professor/Research or Instructor position. Academic rank and salary to be commensurate with qualifications and experience. Applicants should apply by sending curriculum vitae, names, addresses and telephone number of these references and copies of most significant recent publications to: **Dr. Dan Hwang (c/o Evelyn Bennett, Asst Director, HRM Ref: DH 018033, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808.**

LSU/PBRC is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR RESEARCH POSITION PEDIATRIC BRAIN TUMOR RESEARCH LABORATORY

Basic scientist sought for research vacancy in support of clinical scholar in new laboratory program. Ph.D. with significant experience related to genetics, molecular biology, carcinogenesis and/or virology required, experience in relation to the neurosciences preferred. Must be capable of developing original and independent projects related to collaborative activities involving the study of molecular mechanisms and tumor progression in the brain and nervous system. Laboratory management skills, teaching ability, publications and a successful track record with extramural funding are desirable. Competitive compensation and benefits package available.

Applicants should send an introductory letter and curriculum vitae by August 15, 1994, to: **Robert C. Davies, Search Committee, Room 3204, SCB, Department of Neurosurgery, Emory University School of Medicine, 1327 Clifton Road, N.E., Atlanta, GA 30322.** *Equal Employment Opportunity/M-F Employer.*

ASSISTANT/ASSOCIATE PROFESSOR Genetic/Molecular Mechanisms of Disease

The Department of Comparative Medicine, Schools of Medicine and Dentistry, University of Alabama at Birmingham (UAB), invites applications for a tenure-track position at the rank of Assistant or Associate Professor. We seek an independent investigator of genetic and molecular mechanisms in disease pathogenesis, with a strong commitment to development and use of animal models of human diseases. Investigators using innovative approaches to the study of gene expression, development of new stem cell systems (e.g., rat or rabbit), or other innovations in animal modeling are encouraged to apply. Strong background in mouse genetics desirable. Teaching responsibilities are modest and primarily at the graduate level.

The Department of Comparative Medicine cosponsors with the Department of Pathology the Graduate Program in Molecular and Cellular Pathology.

Send curriculum vitae to: **Philip A. Wood, Chair of Search Committee, Department of Comparative Medicine, Schools of Medicine and Dentistry, UAB, Birmingham, AL 35294-0019.** *UAB is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The Department of Biology at Widener University invites applications for a full-time **VISITING ASSISTANT PROFESSOR** (non-tenure-track) with specialties in **VERTEBRATE ZOOLOGY/DEVELOPMENTAL BIOLOGY** and an interest in participating in directing undergraduate research for the academic year 1994–1995. It is anticipated that a new tenure-track position, possibly in this area, will be authorized for the department for 1995–1996. A commitment to undergraduate teaching excellence is essential, and the Ph.D. degree is required. Duties include a course in comparative vertebrate anatomy. Send curriculum vitae, the names of three references, and copies of graduate transcripts to: **Search Committee Chair, Department of Biology, Widener University, One University Place, Chester, PA 19013-5792. (FAX: 610-499-4059.) (Internet: pftjotanyi@cyber.widener.edu.)**

ASSISTANT AND ASSOCIATE PROFESSOR VERTEBRATE DEVELOPMENTAL BIOLOGY

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

NEUROPHARMACOLOGIST/NEUROSCIENTIST. The Department of Pharmacology at the Texas Tech University Health Sciences Center School of Medicine invites applications for two tenure-track positions at the **ASSISTANT AND ASSOCIATE PROFESSOR** level. The Department has recently expanded and is seeking outstanding scientists with an M.D. or Ph.D. degree who have a strong record of achievement. General areas of interest include the molecular basis of signal transduction, intracellular signaling, neuronal plasticity, and neurochemistry. Interested applicants should send their vita and three letters of reference by 2 September 1994 to: **Dr. Louis A. Chiodo, Chairman, Department of Pharmacology, Texas Tech University Health Sciences Center, School of Medicine, 3601 4th Street, Lubbock, TX 79430.** *An Equal Opportunity/Affirmative Action Employer.*

SENIOR ASSOCIATE DEAN, UNIVERSITY OF WISCONSIN MEDICAL SCHOOL, MADISON. Reporting directly to the Dean of the Medical School and in close cooperation with the Dean, the position will be responsible for the operations of the School in pursuit of its missions of education, research and clinical/community service, including: supervision and coordination of the Associate Deans; coordination of selected clinical activities of the School including liaison with clinical practice organizations and hospital affiliations; working closely with Department Chairs and Center Directors to address the needs of their respective departments. The Senior Associate Dean will represent the Dean in his absence. Major qualifications include a successful record of general administrative excellence and with respect to clinical practice, formal administrative training is preferred. M.D. degree or equivalent preferred. Academic accomplishments in clinical practice, teaching or research should meet standards for senior faculty rank appointment in the Medical School. Position available Sept. 1, 1994. To ensure full consideration, submit nominations and applications, including letter of interest and curriculum vitae by August 31, 1994, to: **David A. Kindig, M.D. Ph.D. Search Committee Chair, c/o Margie Martin, UW Medical School, Room 1205, 1300 University Avenue, Madison, WI 53706 (FAX: 608-265-3286).** Unless confidentiality is requested in writing, information regarding applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and encourages minorities and women to apply.*

ACCEPT THE NAVY CHALLENGE

Become a member of an elite research and development community involved in basic and applied scientific research and advanced technological development for tomorrow's Navy.

Listed below are anticipated career opportunities at various naval activities for senior scientists and engineers to perform a variety of research in theoretical and experimental fields and to advise senior naval leadership on science and technology. These are active research positions, not management positions.*

Naval Surface Warfare Center Carderock, MD

- Sr Research Scientist for Theoretical and Experimental Ship Hydrodynamics (ID# ST-00-94)
- Sr Research Scientist for Fluid Structure Interaction and Structural Acoustics (ID# ST-01-94)

Apply to:
Naval Surface Warfare Center
Carderock Division (ID#)
Bethesda, MD 20084
(301) 227-2870

Naval Undersea Warfare Center Division Newport, RI

- Sr Research Scientist for Acoustic Array Systems (ID# NUWC-ST-94-1)
- Sr Research Scientist for Undersea Weapon/Vehicle System Technology (ID# NUWC-ST-94-2)
- Sr Research Scientist for Active Sonar Classification (ID# NUWC-ST-94-3)
- Sr Research Scientist for Acoustic Signal Processing (ID# NUWC-ST-94-4)

Apply to:
NUWC Division-Newport
(ID#)
Code 083
1176 Howell Street
Newport, RI 02841-1708
(401) 841-3585

Office of Naval Research Arlington, VA

- Chief Scientist, Nonlinear Science (ID# 94-10)
- Chief Scientist, Theoretical and Experimental Molecular Biology (ID# 94-11)

Apply to:
ONR SHRO Attn: (ID#)
800 North Quincy Street
Arlington, VA 22217-5660
(703) 696-0972

Naval Command Control and Ocean Surveillance Center San Diego, CA

- Sr Scientist for Ocean Surveillance (ID# 702-09-94)
- Sr Scientist for Electron and Microelectronic Devices (ID# 501-08-94)

Apply to:
HRO Services Office Attn: (ID#)
NCCOSC-Code 122
49330 Electron Dr.-Rm. 104 (Wilson)
San Diego, CA 92152-5452
(619) 553-1838

Naval Surface Warfare Center Panama City, FL

- Sr Scientist for Magnetic Sensors, Modeling, and Signal Processing

Apply to:
NSWC-Dahlgren Division (ID# ST-041-94)
Code P-30
17320 Dahlgren Road
Dahlgren, VA 22448-5100
(703) 663-8051

Naval Research Laboratory Washington, DC and Bay St. Louis, MS

- Sr Scientist for Radar Scattering (ID# 53-ST01)
- Sr Scientist for Advanced Computing Concepts (ID# 55-ST02)
- Sr Scientist for Quantum Electronics (ID# 56-ST03)
- Sr Scientist for Nanotechnology and Photonics (ID# 56-ST04)
- Sr Scientist for Microstructures and Self-Assembled Materials (ID# 60-ST05)
- Sr Scientist for Polymer Synthesis (ID# 61-ST06)
- Sr Scientist for Magnetic Materials (ID# 63-ST07)
- Sr Scientist for Planar Magnetism (ID# 63-ST08)
- Sr Scientist for Intense Particle Beams & Plasma Processing (ID# 67-ST10)
- Sr Scientist for Biosensors and Biomaterials (ID# 69-ST11)
- Sr Scientist for Marine Sedimentology and Geosciences (ID# 74-ST12) Bay St. Louis, MS
- Sr Scientist for Solar and Plasma Spectroscopy (ID# 76-ST13)

Apply to:
NRL HRO Attn: (ID#)
4555 Overlook Avenue SW
Washington, DC 20375-5320
(202) 767-3030

Applicants should be recognized as national/international authorities in their specialty and should have planned and executed difficult programs of national significance or specialized programs that show outstanding attainments in their field of research or consultation. Salaries range from \$79,931 to \$115,700 (plus locality pay) per year. Resumes or SF-171s must reach offices listed above by 1 August 1994.

**Each position will be filled subject to position allocation availability.*

Navy is an Equal Opportunity Employer • US Citizenship Required



POSITIONS OPEN

PROGRAM DIRECTOR-NEURO-ONCOLOGY Massey Cancer Center Medical College of Virginia Virginia Commonwealth University (VCU)

Candidates at the level of Associate or Full Professor are sought with a strong track record of research and peer-reviewed funding to lead the Neuro-Oncology program at the Medical College of Virginia's Massey Cancer Center. The Neuro-Oncology program consists of a group of collaborating faculty in basic and clinical departments who share common interests in cellular physiology, biochemistry, biophysics and molecular genetics of normal and malignant neural tissues. The applicant will have a tenurable primary appointment in a basic science department appropriate to his/her research interests and academic background. The qualified candidate will be expected to lead and facilitate multidisciplinary research efforts, and to participate in the Graduate program and other affairs of the designated academic department and University. M.D.'s or Ph.D.'s will be considered.

Send curriculum vitae and names of three (3) references to: **Dr. Thomas F. Huff, Chair, Neuro-Oncology Search Committee, Medical College of Virginia Campus, Virginia Commonwealth University, Box 980678, Richmond, VA 23298-0678.**

VCU is an Equal Opportunity/Affirmative Action Employer.

MANAGER, IMAGE ANALYSIS MICROSCOPY CORE. M.D. with pathology training and extensive experience in immunohistochemistry needed to manage a shared confocal laser scanning microscopy facility and provide technical expertise, interpretive and preparative services for users. Must have hands-on experience with laser scanning microscopy, *in situ* hybridization, preparation of probes, basic molecular biology techniques. Non-tenure eligible faculty appointment at rank commensurate with experience. Address applications with curriculum vitae and three letters of recommendation to: **Ms. Barbara Roberts, Administrative Assistant, Department of Biochemistry and Molecular Biology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-4525.** Application review will begin July 15, 1994, and continue until position is filled. *UNMC is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

EXECUTIVE DIRECTOR NATIONAL ASSOCIATION OF BIOLOGY TEACHERS (NABT) RESTON, VIRGINIA

The 7,600-member NABT invites applications for the position of full-time executive director, effective 15 May 1995. The successful candidate will have a sound understanding of biology and K-16 education, skills in communication and organizational management, and knowledge of issues related to nonprofit, professional organizations. Master's degree in biological sciences or science education required; Ph.D. preferred. Experience in nonprofit administration will be given priority. Applicants with equivalent experience may be considered. Competitive salary. Send letter of application, curriculum vitae, and three letters of recommendation by 19 August 1994 to: **Joseph D. McInerney, NABT Search Committee, BSCS, 5415 Mark Dabbling Boulevard, Colorado Springs, CO 80918-3842.**

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

POSTDOCTORAL POSITION open for one year, with possible renewal, for Ph.D. with demonstrated track-record in molecular biological techniques applied to proteins/enzymes to study thiamin enzymes (*Biochemistry*, 33, 5630-5635, 1994) and pro-sequence aided folding of proteases (*Biochemistry*, 33, 562-569, 1994). Send curriculum vitae and names/telephone/e-mail addresses of three references to: **Dr. Frank Jordan, Dept. of Chemistry, Rutgers University, Newark, NJ 07102. FAX: 201-648-1264; E-mail: frjordan@andromeda.rutgers.edu.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DIRECTOR

The Maryland Sea Grant College seeks a Director to guide a diverse program of marine research, education, and outreach activities. The College focuses on marine and estuarine science and policy, environmental quality and resource use of the Chesapeake Bay, its watershed and the mid-Atlantic coast. We seek a Director of national stature, with a background in the sciences, environmental law or policy, and with demonstrated administrative skills. Acquaintance with Sea Grant's programs is desirable. Applications are encouraged before August 1, 1994, but will be considered until the time of final appointment. Send a letter of interest and curriculum vitae to: **Director Search, Maryland Sea Grant, 0112 Skinner, College Park, MD 20742.** *The University of Maryland System is an Equal Opportunity Employer and actively seeks nominations and applications from minority and women candidates.*

SENIOR POSITION

The Anthropology and Biology Departments at Penn State seek a human paleontologist and comparative anatomist for a joint tenured senior appointment. The successful candidate should have an internationally prominent record of scholarship in the field; current research in human or primate evolution, preferably including active identification of new specimens; and experience teaching human evolution and anatomy, comparative anatomy, and paleontology. Position available for Fall 1995 start. Applications by October 1, 1994, will be assured of consideration, but search will continue until suitable candidate is found. Please send letter of application, curriculum vitae, and names of three references to: **Dr. Kenneth M. Weiss, Search Committee Chair, Department of Anthropology, 409A Carpenter Building, University Park, PA 16802; Telephone: (814) 865-2509, 814-863-1474. Email: KMW4@PSUVM.** *PSU.EDU.*

An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

FACULTY POSITION Oregon Health Sciences University Department of Anesthesiology Portland, Oregon

The Department of Anesthesiology at Oregon Health Sciences University is seeking to expand its research program and is inviting applications for a tenure-track faculty position from individuals who have a career focus in research and who have been successful in competitive research funding. The successful candidate will be expected to maintain his/her own research program, develop opportunities for other faculty members to participate in research, and provide a mentorship capability for junior faculty and trainees. Focus areas within the institution and department include molecular biology, neurobiology, cardiovascular medicine, environmental and toxicological medicine, metabolism and pharmacology. Joint appointment with either the relevant basic science department, the affiliated Portland Veterans Administration Medical Center or both will be available. Academic rank, salary, space and startup funding will be commensurate with the qualifications of the selected candidate. Please direct inquiries including curriculum vitae, bibliography, reprints of key recent publications, a statement of future research plans and names of three references to: **Richard F. Davis, M.D., Department of Anesthesiology UHS-2, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201-3098.** *OHSU is an Equal Opportunity and Affirmative Action Employer.*

POSTDOCTORAL POSITION available for the study of **ribosomes and protein synthesis.** Current research includes: (1) analysis of ribosomal protein-rRNA interaction by genetic and biophysical approaches; (2) study of structure-function relationships in r-proteins and rRNA by site-specific mutagenesis; and (3) topography of ligand binding sites on ribosomes and other ribonucleoprotein complexes using site-directed cross-linking. Salary commensurate with experience. Review of applications begins 1 August 1994 until suitable candidate is identified. Send curriculum vitae and three letters of recommendation to: **Dr. Robert Zimmermann, Department of Biochemistry and Molecular Biology, University of Massachusetts, Amherst, MA 01003.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION: MOLECULAR ONCOLOGY

Postdoctoral position available in a lab studying the molecular biology of BCR/ABL and BCR. Projects include: (1) transcriptional regulation of the BCR promoter, and (2) signal transduction pathways involving BCR and BCR/ABL. Experience in molecular biology, gene regulation, and/or protein biochemistry is desirable. The position is a two-year initial appointment, with an option for a third year, in the Walther Oncology Center at the Indiana University School of Medicine. Send curriculum vitae and names of three references to: **Dr. David Leibowitz, Hematology/Oncology, IB442, 975 West Walnut Street, Indianapolis, IN 46202.**

POSTDOCTORAL POSITION BROWN UNIVERSITY DIVISION OF BIOLOGY AND MEDICINE

Position available for individual interested in areas of protein structure-function, gene structure and regulation, protein-nucleic acid interactions, or molecular mechanisms of recombination. Previous experience with (or desire to learn) protein chemistry, nucleic acid biochemistry, DNA cloning, genetics or *in vitro* systems.

Please send résumé with desired starting date and list of three references to: **Arthur Landy, Brown University Box G-J360, Providence, RI 02912.**

Brown University is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE Postdoctoral Position in Tumor Suppressor Genes and the Cell Cycle

Applications are invited for a postdoctoral position as an Associate to work in tumor suppressor genes and the mammalian cell cycle. Studies will incorporate molecular biology, cell biology, and biochemical techniques to address questions regarding the molecular mechanisms that tumor-suppressor gene products, such as the retinoblastoma protein (pRb), regulate the cell cycle and how the cell cycle control machinery, such as cyclins and cyclin-dependent kinases (cdks), regulate tumor suppressor gene products.

Qualified candidates should possess either a Ph.D. and/or M.D. in a relevant field. Please forward your curriculum vitae and three letters of recommendation to:

**Steven F. Dowdy, Ph.D.
Washington University School of Medicine
660 South Euclid, Box 8022
St. Louis, MO 63110
Equal Opportunity Employer**

POSTDOCTORAL POSITIONS AT UC IRVINE, TO STUDY POTASSIUM CHANNEL STRUCTURE, FUNCTION AND REGULATION

The Channel/Receptor/Transporter group at UC Irvine (including the labs of M. Cahalan, K. G. Chandry, J. Gargus, A. Goldin, G. Gutman, J. Hall, D. O'Dowd) has an active, multidisciplinary research program with a major focus on ion channels, and substantial links with the pharmaceutical industry. Applications are invited for five postdoctoral positions:

1. Protein chemist, to pursue the biochemical characterization and purification of K⁺ channels for direct structural studies.
2. Electrophysiologist, to work on reconstitution and characterization of the biophysical properties of purified K⁺ channels.
3. Electrophysiologist, to use site-specific mutagenesis along with patch-clamp methodology to delineate the structure of channel pores.
4. Molecular biologist, with an interest in defining the regulatory elements that control K⁺ channel expression.
5. Cell physiologist, to use video-imaging techniques to study cell signaling mechanisms.

Send curriculum vitae and the names of three potential referees to: **Ms. Mona Wapner, Department of Physiology and Biophysics, D 340 Medical Sciences Building I, University of California, Irvine, CA 92717.**

UCI is an Equal Opportunity/Affirmative Action Employer and Educator.

POSITIONS OPEN

POSTDOCTORAL POSITION to study mechanisms of peptide/dopamine interactions. Research involves *in vitro* electrophysiological methods, including patch-clamp techniques. Experience in neuroscience research and with computer-assisted analysis of data desired. Send curriculum vitae and three references to: **Dr. Arthur S. Freeman, Department of Pharmacology, Texas Tech University Health Sciences Center, 3601 4th Street, Lubbock, TX 79430. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS AVAILABLE

Open now for NMR and fluorescence studies of renal cells and membranes. A recent Ph.D. in biochemistry or biophysics and experience in NMR spectroscopy is required. Opening August 1, 1994, for biophysical studies of model membranes, lipid-protein interactions and enzymatic transformation of membranes, primarily by NMR spectroscopy. Send curriculum vitae and three letters of recommendation to: **James A. Hamilton, Ph.D., Department of Biophysics W302, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Affirmative Action.**

TWO POSTDOCTORAL POSITIONS are available to study the newly discovered Ca^{+2} signaling pathway mediated by cyclic ADP-ribose. Ongoing research includes characterizations of the metabolic enzymes, synthesis of cADPR analogs and regulation mechanisms of the pathway. Experience with molecular biology, enzyme purification and/or microinjection desirable. Please send curriculum vitae and reference letters to: **Dr. Hon-Cheung Lee, Department of Physiology, University of Minnesota, 6-255 Millard Hall, 435 Delaware Street SE, Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity Educator and Employer.**

POSTDOCTORAL for structure/function studies of caldesmon in the regulation of smooth muscle contraction. Techniques include protein modification; site directed mutagenesis; fluorescence, ESR, and CD spectroscopy; chemical and photo-crosslinking. Ph.D. in biochemistry/biophysics with research background in spectroscopy and protein biochemistry required. Additional experience in molecular biology a plus. Curriculum vitae and names of three references to: **Dr. Philip Graceffa, Boston Biomed. Res. Inst., 20 Staniford St., Boston, MA 02114. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION, COLLEGE OF AGRICULTURAL SCIENCES, PENN STATE: Postdoctoral Scholar in Root Biology needed September 1, 1994, to study the role of root architecture in the phosphorous acquisition efficiency of root systems. The successful applicant will analyze the P efficiency of common bean (*Phaseolus vulgaris*) genotypes having contrasting root traits, using a C/P budget approach in greenhouse conditions. Experience with IRGA, plant nutrition, quantitative genetics, growth analysis desired. Apply to: **Jonathan Lynch, Horticulture Department, Box SCI, Penn State, University Park, PA 16802, FAX (814) 863-6139. An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.**

POSTDOCTORAL POSITION: The USDA, Agricultural Research Service, Fargo North Dakota, is seeking a research scientist in chemistry, biochemistry or animal physiology to conduct research on the metabolic fate of dioxins and related compounds in animals. The research will seek to isolate and identify metabolites in mammalian tissues and excreta. The successful candidate is expected to develop a research program that will increase the understanding of biochemical and physiological mechanisms involved in dioxin metabolism and disposition that can be applied to the prevention or elimination of persistent xenobiotic residues in animals products. The required qualifications are a Ph.D. in Chemistry, Biochemistry or Animal Physiology (with background in chemistry). Experience in mammalian metabolic studies (i.e. isolation and characterization of metabolites) or experience in the dioxin field is advantageous. Salary is commensurate with experience (\$34,662 to \$44,312). For more information or to apply, send a completed SF-171 and current curriculum vitae to: **Dr. Gerald Larsen, USDA/ARS Biosciences Research Laboratory, 1605 Albrecht Blvd., Fargo, ND, Telephone: (701)239-1230. USDA, ARS is an Equal Opportunity Employer.**



RPI, a leader in the development of ribozyme-based pharmaceuticals and agricultural products, is currently seeking three Ph.D. level scientists in a new facility in Boulder, CO.

Ph.D. Scientist with 2+ years postdoctoral experience relating to DNA delivery in mammalian systems using adenovirus-based vector technology. Expertise in the design, production and delivery of adenovirus vectors is preferred.

Ph.D. Scientist with 2+ years postdoctoral experience relating to DNA delivery in mammalian systems using adeno-associated virus vector technology. Expertise in the design and analysis of AAV vectors and/or the development of AAV vector production methods is preferred.

Ph.D. Scientist with 2+ years postdoctoral experience relating to RNA in eukaryotic systems. Expertise in RNA structure, RNA stability, RNA trafficking, or intracellular RNA localization is preferred.

We offer a competitive salary and benefits package, including stock option plan. For consideration, please send a Curriculum Vitae including the names of three references to: Ribozyme Pharmaceuticals, Inc., Attn: Dr. Dan T. Stinchcomb, Director of Biology Research, 2950 Wilderness Place, Boulder, CO 80301, or FAX to (303) 449-6995. We are an Equal Opportunity Employer.

Post-Doctoral Position

**Embryology
Ruakura Agricultural Research Centre
Hamilton, New Zealand
Vacancy No. 11/94**

Applications are invited for a two year post-doctoral fellowship to investigate production of bovine embryos resulting from fertilisation by FACS separated X- and Y-chromosome-bearing sperm. Approaches will include molecular and cell biology together with improvements in *in vitro* techniques. Applicants will preferably have experience in bovine embryo culture and *in vitro* production, sperm physiology, have an interest in complex instrumentation, and a willingness to see the sexing technology applied in the field. The successful applicant will join a multi-national research group and will be based with AgResearch's embryology programme in Hamilton, New Zealand.

The fellowship consists of a salary of NZ\$38,000 and a contribution to removal expenses. Commencement date is 1 September 1994. Technical and laboratory support will be provided.

Written applications, including CV and the names/addresses of two referees, should be forwarded by Friday 15 July 1994 to:

Carole Bodey, AgResearch Ruakura, Private Bag 3123, Hamilton, New Zealand, phone (64) 7 838-5665, fax (64) 7 838-5658.

AgResearch is an equal employment opportunities employer.


New Zealand Pastoral Agriculture Research Institute Ltd

POSITIONS OPEN

POSTDOCTORAL POSITIONS—Johns Hopkins University. Opportunities are available to study neuronal degeneration. Experience in biochemistry, cell and/or molecular biology required. Please send curriculum vitae and 3 letters of reference to: **Dr. Ted M. Dawson, Department of Neurology, JHU, Pathology 2-210.600 North Wolfe Street, Baltimore, MD 21287.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION MICROBIAL POPULATION BIOLOGY

A position is available immediately to study the factors that determine genetic exchange rates within and between bacterial species and the evolutionary consequences of genetic exchange in bacteria. Preference will be given to evolutionary biologists who are trained in molecular or microbiological methods. Curriculum vitae, a statement of research interests, and three letters of recommendation should be sent by August 19, 1994, to: **Dr. Frederick M. Cohan, Department of Biology, Wesleyan University, Middletown, CT 06459-0170.** *Wesleyan University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS: To study regulation of gene expression during fat synthesis and adipocyte differentiation. Research includes (1) characterizing and cloning nuclear factors that interact with hormone response elements for lipogenic enzyme genes and (2) studying mode of action of an inhibitor of adipogenesis and its down-regulation during adipocyte differentiation. Send curriculum vitae and names of references to: **Dr. Hei Sook Sul, Department of Nutritional Sciences, University of California-Berkeley, Berkeley, CA 94720.**

POSTDOCTORAL POSITION available to study the biogenesis, molecular genetics, and structure of *Haemophilus influenzae* pili. Candidates should have a Ph.D. with a strong background in protein biochemistry or molecular biology. Send curriculum vitae and three letters of recommendation to: **Dr. Janet Gilsdorf, Department of Pediatrics and Communicable Diseases, University of Michigan Medical School, Ann Arbor, MI 48109.** *The University of Michigan is an Equal Opportunity/Affirmative Action Employer and encourages women and minorities to apply.*

POSTDOCTORAL POSITION in Neuroimmunology available summer 1994. NIH-supported position to study molecular and immunological mechanisms of the autoimmune diseases Myasthenia Gravis. Development of molecular therapeutic strategies for specific treatment of experimental and human Myasthenia including induction of anergy; "targeting" specific T cells; and new agents for specific therapy of autoimmune diseases. Must have Ph.D. or M.D., knowledge of molecular biology and some cellular immunology, and laboratory experience. FAX or send letter describing background and interest, curriculum vitae, and three references to: **Daniel B. Drachman, Director, Neuromuscular Unit, Johns Hopkins School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287-7519.** FAX: 410-955-1961. *An Equal Opportunity Employer.*

RESEARCH FELLOW to study molecular pathology of cell death. Ph.D. with strong background in molecular biology and related technologies required. Additional experience in protein chemistry preferred. Send résumé and three references to: **M. A. Venkatachalam, Department of Pathology, UTHSCSA, 7703 Floyd Curl Drive, San Antonio, TX 78284-7750.** *The UTHSCSA is an Equal Employment Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP

Position available September 1994 to study the molecular biology of lipid transfer proteins as part of a research group interested in the regulation of plasma membrane function. Applicants should have a Ph.D. in Biochemistry or Molecular Biology, with experience in molecular biology relevant to structure-function analysis of newly identified proteins. Knowledge of gene knock-out techniques an advantage. Please submit curriculum vitae and names of three references to: **Christopher J. Fielding, Ph.D., Cardiovascular Research Institute, Box 0130, University of California Medical Center, San Francisco, CA 94143.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

VISITING FELLOWSHIPS 1996, HUMANITIES RESEARCH CENTRE, THE AUSTRALIAN NATIONAL UNIVERSITY. Applications are invited for Visiting Fellowships in the Humanities Research Centre in 1996. Each year the Centre concentrates upon a special theme. In 1996 the theme will be 'Culture and Science'. The Centre intends to organize four conferences: The Tenth David Nichol Smith Conference on Eighteenth-Century Studies, 'Margins and the Metropolis: Literature, Culture and Science, 1660-1830' (early July); 'Beyond Colonialism: a seminar on art history and anthropology in honour of Bernard Smith' (late July); 'Science and Other Indigenous Knowledge Traditions' (Incorporating the Sixth Comparative Scientific Traditions Conference, to be held jointly with Deskin University's Sciences in Society Centre and James Cook University, and based at the Cairns Campus of James Cook University in late August/early September); 'The Natural Sciences and the Social Sciences' (mid-September). Applications from scholars working in any area of the humanities are welcomed, as a proportion of each year's Fellowships is reserved for those without special interest in the year's theme; the majority of Fellowships, however, will be awarded to those whose work is relevant to the annual theme and its conferences. Fellows are expected to work at the Centre, but are encouraged also to visit other Australian universities. Grants usually include a travel component and a weekly living allowance. Prospective applicants must obtain further particulars and application forms from the **The Centre Administrator, Humanities Research Centre, The Australian National University, Canberra, ACT 0200, Australia.** FAX: 61 6 248 0054. Applications should reach the Secretary, ANU, by 31 October 1994. Ref. HRC 8.6.1. *The University is an Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE

A position is available in the Department of Pathology and Laboratory Medicine to examine the relationship between B-cell selection and lymphomagenesis; between HIV-induced B-cell activation and lymphoma, in particular. This position is in a molecular immunology laboratory on the University of Pennsylvania campus in Philadelphia, PA. Experience with diversified techniques in molecular biology, protein chemistry and general tissue culture is desirable. Individuals with training in the area of immunology, biochemistry or genetics who are interested in this position should contact: **Leslie E. Silberstein, M.D., Professor, Department of Pathology and Laboratory Medicine, 3400 Spruce Street, Philadelphia, PA 19104-4283.** Telephone: 215-662-3427. FAX: 215-662-6891.

POSTDOCTORAL RESEARCH ASSOCIATE position available in the Department of Biochemistry and Molecular Pathology to study molecular mechanisms of regulation of cholesterol 7 α -hydroxylase in bile acid synthesis and cholesterol homeostasis. Experiences in gene cloning, sequencing and expression, protein-protein/protein-DNA interactions, purification of P450 enzyme and tissue culture preferred. Send curriculum vitae and three letters of recommendation indicating position by July 29, 1994, to: **Dr. John Y. Chiang, c/o Human Resources, Northeastern Ohio Universities College of Medicine, 4209 State Rt. 44, P.O. Box 95, Rootstown, OH 44272.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH POSITIONS IN MOLECULAR TUMOR VIROLOGY AT YALE UNIVERSITY

Postdoctoral research positions are available in a number of interactive laboratories studying various aspects of the molecular biology of human tumor viruses. The participating laboratories focus on the following areas: animal models of papillomavirus pathogenesis (**Janet Brandsma**), signal transduction by papillomavirus oncogenes and growth inhibitory genes (**Daniel DiMaio**), regulation of Epstein-Barr Virus gene expression and genome rearrangement (**Nancy Maizels**), Epstein-Barr Virus latency, replication, and recombination (**I. George Miller**). Candidates with a strong background in molecular and cellular biology, biochemistry, or virology are encouraged to submit curriculum vitae and the names of three references to one of the listed faculty: **c/o Janice Zulkowski, Department of Genetics, 333 Cedar Street, SHM I-145, New Haven, CT 06510.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POST-DOCTORAL FELLOW. Position available to study cell biology of the retina, including disease mechanisms in retinitis pigmentosa. Candidate should have a Ph.D. in cell biology/molecular biology and background in vision research. Please send curriculum vitae and two letters of reference to: **Ann H. Milam, Ph.D., Department of Ophthalmology RJ-10, University of Washington, Seattle, WA 98195.** *Females and minorities are encouraged to apply. The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE position (12-month full-time, 1-year duration with possibility of annual renewals at discretion of Director) examining chemical carcinogenesis and its inhibition in rainbow trout. Specific areas of research include oncogene mutagenesis, tumor dose-response and carcinogen metabolism, mechanisms of cancer inhibition. Closing date August 1, 1994, or until position is filled. Start immediately. Send letter of application and curriculum vitae, and have three letters of reference sent to: **Dr. George Bailey, Marine/Freshwater Biomedical Center, Wiegand Hall, Oregon State University, Corvallis, OR 97331.** *OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.*

RESEARCH SCIENTIST POSITION MOLECULAR GENETICS OF HYPERTENSION

The University of Iowa Cardiovascular Center and the Program in Gene Therapy and Molecular Cardiology seeks a Research Scientist to apply embryonic stem cell technology to the study of cardiovascular disease. The successful candidate is expected to interact with members of the Cardiovascular Center on all aspects of Gene Knockout and Gene Replacement. Likely interactions include Curt D. Sigmund, Ph.D. (Transgenic Models of Cardiovascular Disease), Val C. Sheffield, M.D., Ph.D. & Allyn L. Mark, M.D. (Molecular Genetics of Hypertension), Michael J. Welsh, M.D. & Donald Heistad, M.D. (Gene Therapy in the Cardiovascular System), Roger A. Williamson, M.D. (ES Cell Models), and Kevin P. Campbell, Ph.D. (Molecular Biology of Muscular Dystrophy). A Ph.D. and at least 2 years of relevant post-doctoral experience is required. Previous experience using embryonic stem cell techniques is desired. The appointment will be in the Department of Internal Medicine, and the successful candidate will work in the Transgenic Animal Core Facility. *The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Applicants should submit a cover letter indicating #32157, curriculum vitae, a description of their previous experience using embryonic stem cell techniques, and the names and addresses of three references to: **Michele Pugh, Human Resources, Internal Medicine, SE 320 GH, 200 Hawkins Dr., Iowa City, IA 52242.**

ASSISTANT MARINE RESEARCH SCIENTIST

Ph.D. in an environmental science required, preferably systems ecology, biology or chemistry. Experience in field research in marine or aquatic environments required; expertise in benthic studies preferred. Familiarity with sampling procedures for N, P, Si, C, as well as sampling procedures for primary productivity, including C-14, oxygen, carbon dioxide by bottle incubation, and whole system measurements preferred. Must have knowledge of microcomputers, software for statistical analyses, and software for modeling. Skills in data analyses, professional writing, and professional presentation preferred. Demonstrated ability to manage professional personnel and students preferred. Must have strong verbal and interpersonal communication skills. Must be able to be on emergency call nights and weekends, and to endure adverse environmental conditions, including difficult field conditions at sea, exposure to hazardous waste sites and use of radioactive tracers. Position is limited to 27 May 1995 with extension contingent on funding. Submit a letter of application and résumé by 8 August 1994 to: **Candace Oviatt, Search Coordinator, (Log # 091152), University of Rhode Island, P.O. Box G, Kingston, RI 02881.** *The University of Rhode Island is an Affirmative Action/Equal Employment Opportunity employer and is committed to increasing the diversity of its faculty, staff and students. People from under-represented groups are encouraged to apply.*

**ASSOCIATE DIRECTOR
RADIATION RESEARCH PROGRAM (RRP)
DIVISION OF CANCER TREATMENT (DCT)
NATIONAL INSTITUTE OF HEALTH,
NATIONAL CANCER INSTITUTE (NCI)**



Location: Rockville, Maryland

As Associate Director of the Radiation Research Program (RRP), the incumbent has overall responsibility for the planning, evaluation, and coordination of broad national and international radiation research programs designed to determine the effectiveness of radiation in cancer treatment, its usefulness in the diagnosis of cancer and other diseases, and the biological effects of exposures to low doses of ionizing and nonionizing radiations. Directs and manages extramural radiation research supported by the NCI's Division of Cancer Treatment (DCT). Coordinates, reviews and implements the fiscal management of RRP's budget which includes grants (Research Project Grants - R01, Program Project Grants - P01, Conference Grants - R13), research and resource contracts, and cooperative agreements which has an approximate operating budget of \$110 million. RRP presently has a staff of 12 full time employees which includes support as well as scientific personnel.

SALARY : Ranges from \$71,049 to 91,029 per annum. Physicians may be eligible for an added allowance up to \$20,000 per annum.

BENEFITS : Health and life insurance options, retirement, paid holidays, vacation and sick leave.

Applicants must meet the minimum educational requirements for Medical Officer, GS-602. In addition, applicants must possess a minimally satisfactory level of competence in the knowledges, skills, and/or abilities listed below to meet minimal qualifications for the position.

1. Ability to direct, lead and manage preclinical/clinical research programs as they relate to cancer in one or more radiation specialties, e.g. radiotherapy, diagnostic imaging, nuclear medicine, radiation biology, physics.
2. Ability to plan, develop and implement research projects and programs including the formulation of program objectives and goals.
3. Ability to obtain and allocate the financial and material resources necessary to support program/policy implementation, and the ability to recruit, manage, and motivate personnel necessary to support the program.
4. Ability to establish and maintain effective collaborative relationships with other key scientists and groups within the U.S. and abroad having similar or related research interests.

For further qualification requirements, application procedures, and other additional information, please contact Ms. Suzanne Ryan, Personnel Management Specialist, NCI at (301) 496-8657.

Applications for Federal Employment (SF-171), are to be sent to the above individual at: The National Cancer Institute, Personnel Management Branch, 6120 Executive Boulevard, Executive Plaza South, Room 531, Rockville, Maryland 20852. A current curriculum vitae and bibliography must accompany all applications for this position. However, interested Public Health Service Commissioned officers currently within the Commissioned Corps may submit a resume in lieu of a SF-171.

Applications must be postmarked no later than the announcement closing date of August 9, 1994. To be considered, applicants must be U.S. citizens.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

Cancer Prevention Fellowship Program

The Division of Cancer Prevention and Control (DCPC), NCI, is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to train individuals from a multiplicity of health science disciplines in the field of cancer prevention and control. The program provides for: Master of Public Health training (at accredited university programs); Participation in the DCPC Cancer Prevention and Control Academic Summer Course (open to all physicians and scientists interested in learning the principles and practice of cancer prevention and control); Working at DCPC directly with individual preceptors on cancer prevention and control projects; Brief field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1995. Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

Eligibility

M.D., D.D.S., or D.O. from a U.S., territorial, or Canadian Medical School. Foreign medical graduates must have current ECFMG/FMGEMS or USMLE certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

Or

Ph.D., Dr.P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences). Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

Plus

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and an application catalog either call, fax or send a postcard or letter with your name and home address to:

Douglas L. Weed, M.D., M.P.H., Ph.D.
Director

Cancer Prevention Fellowship Program
Division of Cancer Prevention and
Control

National Cancer Institute
Executive Plaza South, T-41
Bethesda, MD 20892

Further Inquiries: Mrs. Barbara Redding
TELEPHONE(301) 496-8640
FAX(301) 402-4863

Deadline for receipt of applications:
September 1, 1994



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MRI POSTDOCTORAL FELLOWSHIP

SmithKline Beecham, a worldwide leader in pharmaceutical research, has an opportunity for a postdoctoral fellowship to join our state-of-the-art MRI facility.

The selected individual will work in the area of development of NMR Imaging, micro-imaging and Spectroscopic techniques and its application to drug discovery research. Our recently built MRI facility has well-equipped image analysis and electronics laboratories, as well as a dedicated pre-clinical preparation laboratory. The instrumentation includes a 4.7 T 40 cm Bruker/ABX system and a 9.4 T 8.9 cm Bruker/AMX system with micro-imaging accessories. The image analysis laboratory consists of a series of UNIX/Sparc workstations.

The successful candidate will have a Ph.D. in Physics, Chemistry, Biochemistry, Bio-medical or Electrical Engineering and a sound knowledge of NMR theory and techniques. Strong background in RF coil and pulse sequence design and development is a plus.

SmithKline Beecham offers a competitive compensation and benefits package and a stimulating team environment. Qualified candidates, please forward resume and salary history to: SmithKline Beecham Pharmaceuticals, #H0192, P.O. Box 799, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

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SCIENTIST

~Protein Biochemistry~

Arris Pharmaceutical, a growing biopharmaceutical company, is dedicated to the rapid development of novel human therapeutics. A hallmark of Arris' drug design approach is the integration of biological sciences with medicinal and computational chemistry as well as artificial intelligence. We are currently seeking a skilled protein biochemist for our Oral Cytokines group.

As a member of a team working closely with X-ray crystallographers and molecular biologists in structure/function studies, you will purify and characterize rDNA-expressed receptor proteins from a variety of different sources, including eukaryotic cells, yeast and E. coli. The successful candidate will be a Ph.D. with 0-2 years' relevant postdoctoral experience in biochemistry. Experience in protein purification using standard chromatographic techniques, FPLC and HPLC, along with skills in SDS-PAGE, ELISA, and immunoblotting are also required. Knowledge of cell culture is a plus.

We offer an attractive salary, a generous benefits package, the potential for career advancement, and the rare opportunity to make significant scientific contributions. Please send resume and cover letter to: Arris Pharmaceutical Corp., Human Resources Department, Attn: Job# OC/CK-S, 385 Oyster Point Blvd., Suite 3, South San Francisco, CA 94080. An Equal Opportunity Employer.



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C O R P O R A T I O N

**ASSOCIATE DIRECTOR
DEVELOPMENTAL THERAPEUTICS PROGRAM (DTP)
DIVISION OF CANCER TREATMENT (DCT)
NATIONAL CANCER INSTITUTE,
NATIONAL INSTITUTES OF HEALTH (NIH)
PUBLIC HEALTH SERVICE (PHS)**



The NCI is accepting applications for the position of Associate Director, DTP, located in Rockville, Maryland. We are seeking scientists experienced in biology, microbiology, pharmacology, chemistry, or medicine, who have demonstrated the ability to manage the planning, direction and implementation of a broad national and international program of drug discovery and development. The DTP is designed specifically to maintain a continuous flow of therapeutic agents and materials from laboratory clinics for the treatment of cancer and AIDS. The DTP is composed of three distinct segments with an annual funding level of approximately \$134 million. The segments consist of a large extramural contact-based drug-development program (approximately \$40 million), a grant-supported Biochemistry and Pharmacology program (approximately \$77 million), and an intramural, laboratory oriented research program (approximately \$17 million) exclusive of salaries and related fringe benefits. The DTP staff consists of approximately 225 scientific and supporting personnel.

SALARY : Ranges from \$69,427 to 91,029 per annum. Physicians may be eligible for an added allowance up to \$20,000 per annum.

BENEFITS : Health and life insurance options, retirement, paid holidays, vacation and sick leave.

Applicants must possess a minimally satisfactory level of competence in the knowledges, skills, and/or abilities below to meet minimal qualifications for the position.

1. Ability to manage laboratory or clinical research programs as they relate to cancer in one or more of the following biomedical sciences: medical oncology, chemistry, biology, biochemistry, internal medicine, pharmacology.
2. Ability to direct and guide programs and projects, including long and short-term goals and priorities, and the structure necessary to carry them out.
3. Ability to obtain and allocate the financial and material resources necessary to support program or policy implementation.
4. Ability to establish and maintain effective collaborative relationships with other key scientists and groups within the U.S. and abroad having similar or related research interests.

For further qualification requirements, application procedures, and other additional information, please contact Ms. Suzanne Ryan, Personnel Management Specialist, NCI at (301) 496-8657.

Applications for Federal Employment (SF-171), are to be sent to the above individual at: The National Cancer Institute, Personnel Management Branch, 6120 Executive Boulevard, Executive Plaza South, Room 531, Rockville, Maryland 20852. A current curriculum vitae and bibliography must accompany all applications for this position. However, interested Public Health Service Commissioned officers currently within the Commissioned Corps may submit a resume in lieu of a SF-171.

Applications must be postmarked no later than the announcement closing date of August 8, 1994. To be considered, applicants must be U.S. citizens.

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**Deutsches
Krebsforschungszentrum**
Stiftung des öffentlichen Rechts

**Universität
Heidelberg**

CLINICAL RESEARCH UNIT

A new Clinical Research Unit will start operating in Heidelberg during the last quarter of 1994 (Head: Dr. Carlo Gambacorti). This represents a unique opportunity to work in a CRU/CRC environment in Europe. The initial focus will be on the development of new and innovative cancer treatment modalities.

The main aim of this unit will be to maximize the interaction between preclinical and clinical studies. This Unit will be located within the University Hospital in Heidelberg, and will represent a Division of the Deutsches Krebsforschungszentrum (DKFZ).

We are presently looking for qualified candidates to fill the following positions:

Group Leader for Laboratory Activity: qualifications include PhD/MD, outstanding research record with previous experience in cellular immunology/molecular biology and proven ability to independently run research projects and to manage a research lab: this position is 100 % lab based; initial two year appointment, with possibility for tenure;

Group Leader for Clinical Affairs: qualifications include MD, broad certification in Oncology/Hematology, eligibility to practice medicine in Germany, prominent research record; this is a tenure-track position with an initial two year appointment;

Research Nurse Coordinator: qualifications include RN level, previous experience in a CRU, and willingness to function as a role model for the nursing personnel: initial two year appointment;

Post Doctoral Fellows: qualifications include MD and at least two years of post MD clinical training (with at least one year of Onc/Hem training), eligibility to practice medicine in Germany, strong interest in working in combined laboratory/clinical projects. This is a three year training program combining two years of lab research with one year of clinical activity;

Competitive salaries and relocation assistance are available.
Initial knowledge of German is desirable but not essential.

Interest applicants can send their complete CV including three letters of recommendation or the names of three referees to:
DKFZ - Personnel Department, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany

EXPLORATION OF THE UNIVERSE a challenge for Europe and its best scientists

The European Southern Observatory (ESO) is an intergovernmental organisation responsible for the most advanced astronomical research in the southern hemisphere. The eight Member States of the ESO are Belgium, Denmark, France, Germany, Italy, the Netherlands, Sweden and Switzerland.

As the prime European astronomical centre, ESO occupies a leading position in the world's scientific community. Its research work is of great value to many areas of science and industry. The Very Large Telescope (VLT) is a 400 MDM programme expected to be completed by the year 2000. It consists of four 8-metre telescopes to be built by European industry and installed in Chile. ESO is responsible for the conceptual design, engineering design and construction of some essential parts, as well as for the overall programme management.

This is an exceptional opportunity for those seeking creative involvements in an international scientific environment, as ESO urgently requires the skills of a (m/f):

SENIOR ASTRONOMER/PHYSICIST Head of the Instrumentation Division (Ref.: EID 001)

at the ESO Headquarters in Garching near Munich

Profile: applicants should have a PhD in Astronomy or Physics and 10 or more years of experience in the design and use of astronomical instrumentation. The ideal candidate should have a distinguished record of astronomical research and be an active astronomer; his qualifications should be roughly those of a full professor at a major university.

Responsibilities: the Head of the Instrumentation Division will report directly to the Director General of ESO. This newly formed division groups together all activities pertaining to instrumentation. It consists of several groups developing infrared instruments and detectors, optical instruments and detectors, and CCD cameras. In addition, it includes project support activities like optical design, electronics hardware and software and a small mechanical workshop. The staff complement of the division is approximately 35, of which currently 6 are astronomers. It is foreseen that during the 1994-1995 period 4 more astronomers will be recruited.

The successful candidate will be responsible for: ☐ the development, testing and installation in the field of VLT instruments for both in-house projects and those involving collaborations with consortia of external institutes; ☐ the support in the maintenance and upgrading of the instrumentation of the La Silla Observatory and in the design and procurement of new instruments; ☐ conducting a future advanced instrumentation programme by design studies, preparation and/or solicitation of proposals, and by the development and testing of critical components and detectors. In addition to providing leadership in these tasks, the Head of the Instrumentation Division will contribute to the development of policies for ESO as a whole. Frequent travelling to the observatory sites in Chile (at least twice a year) are to be expected.

Remuneration for this post will be commensurate with background, experience and family status. It will be compatible with the salaries paid by intergovernmental organisations.

Although preference will be given to nationals of ESO Member States, this should not discourage suitably qualified applicants from other countries from applying. Positions are open to suitably qualified women and men. It is essential that all candidates have an excellent command of English.

Applications with a brief c.v., (no supporting documentation unless requested) should specify the job reference and be submitted before July 27, 1994 to: Personnel Administration and General Services, European Southern Observatory, Karl-Schwarzschild-Strasse 2, D-85748 Garching near Munich, Germany. Tel: (89)320.06.438 or (89)320.06.219.



EUROPEAN SOUTHERN OBSERVATORY



RESEARCH OPPORTUNITY

Two professional positions are available in the Bioinformatics Program. One, with a project funded through the Genome Initiative, is developing and expanding mammalian genotype and phenotype databases, including the Mouse Genome Database. The other is initiating the development of a new mammalian Gene Expression Resource. These positions entail literature searching, acquiring and analyzing data to be incorporated into the databases, interacting with labs that contribute data, and helping database users. The successful applicants will be primarily responsible for data acquisition and database maintenance, but will also participate in determining database contents and display methods with other members of the Mouse Genome Informatics project. Applicants must be versed in developmental biology/physiology or in genetics/molecular biology. Other desirable attributes include writing/communication skills and experience using computers. MS degree in Life Sciences required.

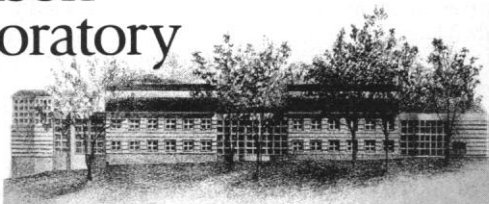


The Jackson Laboratory

The Jackson Laboratory, located on the coast of Maine on the fringe of Acadia National Park, is a world renowned center and resource for mammalian biology and genetics.

Please contact: The Jackson Laboratory
Attn: Harold R. Wheeler, Employment Manager
600 Main Street, Bar Harbor, ME 04609
207/288-3371

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SENIOR SCIENTIST (Research & Development)

We seek a scientist who thrives in a fast-paced team-oriented environment to develop new products in the areas of extracellular matrix, cytokines and *in vitro* cell culture systems. Participating in product development strategy, product testing and patent applications, you will also provide support to sales, marketing, manufacturing and QA/QC.

Qualified candidates will have an advanced degree in Protein Biochemistry or Cell Biology, and up to 3-5 years post-doctoral experience in the isolation and characterization of extracellular matrix proteins or proteoglycans, and cell-matrix interactions. Strong analytical and communication skills are essential.

We offer competitive compensation and comprehensive benefits.

Qualified applicants may submit or fax resume in complete confidence to Human Resources, Collaborative Biomedical Products, Becton Dickinson Labware, Two Oak Park, Bedford, MA 01730. FAX: (617) 275-7670

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Females and minorities are encouraged to apply.



**THE HONG KONG UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

**Department of Chemistry
FACULTY POSITIONS**

The Hong Kong University of Science and Technology, with the mandate to become one of the eminent technological research universities in the world, was opened in October 1991, with programmes at both undergraduate and post-graduate levels. The medium of instruction is English. The Department of Chemistry invites applications for the following positions in all areas of chemistry: Professor: min. US\$107,300 p.a.; Reader: US\$78,400 - US\$104,100 p.a.; Senior Lecturer: US\$75,100 - US\$100,900 p.a.; Lecturer: US\$48,400 - US\$80,800 p.a. The research thrust of the Chemistry Department includes: 1) Novel Analytical Techniques (NAT); 2) Laser Spectroscopy and Applications (LSA); 3) Advanced Materials/Polymers (AMP); and 4) Drug Discovery, Design and Synthesis (D'S). Applications are particularly invited for Professor/Reader positions with expertise in Chemical/Biomolecular Sensors. Applications in response to earlier advertisements will automatically be reviewed and such candidates need not re-apply. Generous fringe benefits including medical and dental benefits, annual leave, and children's education allowances are provided. Air passages and housing are also provided where applicable. Initial appointments will generally be on a three-year contract; a gratuity of an amount equal to 25% of the basic salary drawn will be payable upon successful completion of contract. Re-appointment after the initial contract will be subject to mutual agreement. Approved sabbatical leave will be at full salary. Applications should be sent with a C.V., together with names and addresses of three referees to Professor Nai-Teng Yu (for NAT and LSA), Professor H. Hiraoka (for AMP), or Dr. Richard Haynes (for D'S), Department of Chemistry, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong (Fax: 852-358-1594) by October 15, 1994, but the search will continue until suitable appointments are made.



**INTERNATIONAL POTATO CENTER (CIP)
seeks
DIRECTOR OF GENETIC RESOURCES**

The International Potato Center (CIP), a non-profit scientific institution dedicated to the greater use of potato and other tuber and root crops in the developing world, seeks a highly qualified individual for the position of Director of Genetic Resources to be based in Lima. CIP is supported by the Consultative Group of International Agricultural Research (CGIAR).

The Position: A Director level position with overall leadership of CIP's work on genetic conservation, enhancement, and breeding of potato, sweetpotato, and several regionally important Andean root and tuber crops. The incumbent will lead a global effort to maintain biodiversity whilst stimulating development of advanced materials, including potential varieties, for use in developing countries of Asia, Africa and Latin America. To increase crop productivity whilst decreasing dependence on pesticides, strong emphasis will be placed on improving characters such as resistances to the major fungal, bacterial and viral diseases, and to insect and nematode pests. Developing tolerances to abiotic stresses such as heat, cold, and drought and improving processing potential and storability will also be key issues. The work involves a pragmatic blend of conventional and biotechnological approaches, and will provide strategic direction to the commodity improvement activities of CIP.

An important aspect of the work is to ensure that impact on low-income farmers and consumers is the major driving force behind the work and that there is appropriate follow-up to measure the practical impact being achieved in terms of increasing productivity and lowering of monetary and environmental costs.

The incumbent will lead a team of genetic resources specialists and breeders at CIP's headquarters in Lima as well as breeders based in Africa and Asia. The incumbent will report to the Deputy Director General for Research. The work involves close collaboration with national agricultural research systems and the private sector in developing and industrialized nations. The position involves strong interactions with CIP's Program Leaders, Regional Representatives and scientists in a broad range of disciplines.

Benefits: Internationally competitive package including pension, health insurance, children's education, housing allowances and home leave.

Applications: Interested candidates should send a detailed résumé to Director General, International Potato Center (CIP), Apartado 1558, Lima, Peru. Fax: 51-14-351570.

Closing date for application: August 15, 1994.

CIP strives for staff diversity in gender and nationality.

Director of Rapid Diagnostic Test Development

to \$100,000 equivalent

Our client is a publicly owned human healthcare company developing novel therapeutic and diagnostic products. It is a fully integrated business with the capability to bring a product from research concept to the marketplace. It operates worldwide with a particular focus on the Asia Pacific, USA and European markets.

As part of a continuing strategy to develop rapid testing devices for multiple analytes, this progressive organisation has created a new division of rapid diagnostics and wishes to appoint an ambitious, innovative individual as Director. An early challenge will be to recruit and motivate a team of scientists.

Reporting to the President, the Director will be expected to provide an extensive pipeline of novel, rapid diagnostic products for a variety

of biological agents. Knowledge of immunodetection techniques, membrane technology, reagent development and device engineering is essential. Experience with non-enzymatic detection and colloidal gold systems would be an asset.

The successful candidate must have a balance of scientific and managerial skills with a demonstrable ability to communicate and influence effectively. The appointment offers substantial negotiable remuneration, including relocation assistance to either the USA or Singapore dependent on the eventual base.

Please reply in confidence, quoting ref: A61E32, and giving concise career, personal and salary details to: Dr. Susan Gammon at MSL International Limited, 32 Aybrook Street, London W1M 3JL.

MSL International

CONSULTANTS IN SEARCH AND SELECTION

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

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

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

- **Bonus Distribution**

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

- **Advertisers' Index**

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

- **Harvey Readership Study**

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

Advertising Deadline: 6 September

To advertise call Janis Crowley at (212) 496-7704 or fax to (202) 682-0816.

In Europe call (44) 0223 302067 or fax to (44) 0223 302068

ASSISTANT RESEARCH MOLECULAR BIOLOGIST

The Cardiovascular Research Institute, University of California San Francisco, invites applications for appointment as an Assistant Research Molecular Biologist to study structure-function relationships in proteins of plasma and cellular lipid transport. The successful applicant will join a group of investigators studying the molecular and cellular basis of atherosclerosis. Applicants must have at least three years of successful research in molecular biology. Experience in mutagenesis, homologous recombination and expression in mammalian systems preferred. Salary will be within the range \$41,600 - \$45,100. A curriculum vitae, a summary of research interests, and the names of three referees should be sent to: Dr. Christopher J. Fielding, Chair, Search Committee, Cardiovascular Research Institute, Box 0130, University of California Medical Center, San Francisco, CA 94143 (quote Position #M1478). The University of California San Francisco is an Equal Opportunity/Affirmative Action Employer. Minority, women, handicapped and veteran candidates are encouraged to apply.

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You will study the expression of novel neural-activity induced genes and investigate their functions in mammalian central neurons using in vivo models and cell culture systems.

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Cellco develops biotherapeutic products and systems for expansion of hematopoietic stem cells for human therapy. Our R&D Division is a collaborative team of professionals with focused hands-on participation in supporting our clinical program. We currently seek the following scientist:

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This position requires a Ph.D. in Analytical Biochemistry or Analytical Chemistry, 3-8 years of postdoctoral training and experience with development and validation of spectroscopic, chromatographic, immunochemical analytical techniques. Experience in protein chemistry, tissue culture techniques, computer programming and instrument networking will also be helpful. Preference given to persons who have established an industrial analytical laboratory and have a detailed knowledge of GLP/GMP.

The successful applicant will play a key role in advancing Cellco science into early patient treatment. We offer a competitive compensation and benefits package and the opportunity to design your own laboratory. Please send or Fax your CV, publications list and addresses, telephone and FAX numbers of three references to: Fax (301) 916-1010. Cellco, Inc., Human Resources, 12321 Middlebrook Road, Germantown, MD 20874. E.O.E.

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Microcide Pharmaceuticals, Inc., a young and innovative San Francisco Bay Area biopharmaceutical company focused on discovery and development of novel antimicrobial agents for the treatment of human bacterial infectious diseases, is seeking highly motivated individuals to join its growing multidisciplinary scientific teams (chemists, biologists and pharmacologists). The successful candidate must have the ability to work independently and as part of a multidisciplinary team and have excellent communication skills.

Openings exist for **Senior Fermentation Microbiologist**. Ph.D. or equivalent experience to set up a microbial fermentation laboratory, conduct and oversee fermentation and strain improvement, prepare fermentation extracts for screening and maintain the culture collection. **Fermentation Microbiologist**. BS or MS, with minimum of 2 years experience in bacterial fermentation techniques and interest in strain and medium improvement. **Natural Products Chemists**. Ph.D. in organic chemistry with a minimum of 5 years experience in natural products isolation and structural elucidation; experience as a mass spectroscopist a plus. **Synthetic Organic Chemists**. BA/BS or MS in organic chemistry, with minimum of 4 year experience in synthetic chemistry (discovery and/or process). **Molecular Microbiologists/Molecular Geneticists**. Ph.D. with minimum of 5 years' research experience in molecular biology, microbiology or genetics. **Associate Microbiologists/Molecular Geneticists**. BA/BS or MS with minimum of 2 years research experience in molecular biology, microbiology or genetics.

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Applications are invited from Ph.D. level mathematicians, statisticians, computer scientists, and electrical engineers for research positions on our technical staff. Initial appointment would be for one or two years, possibly leading to a permanent position. Wide interests, and the ability to motivate one's own work are more important than knowledge of specific technical areas.

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IDA/SRC is an equal opportunity/affirmative action employer, and encourages applications from women and members of minority groups. Send resume and publication list to:

Dr. D.B. Heifetz
Deputy Director
IDA/SRC
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Bowie, MD 20715-4300

U.S. citizenship required.

PHARMACOLOGIST

An experienced research pharmacologist is being sought to establish animal models for the discovery and evaluation of novel agents for the treatment of prostate cancer. This is an important, hands-on position in a dynamic research team focused on developing novel molecules for modulation of tyrosine kinase signaling and its application to oncology. The successful candidate will have at least four years post-doctoral experience in in vivo models of cancer cell growth. Prior experience in industry and in the management of research associates is preferred. The ability to identify, coordinate and manage animal models in other broad therapeutic areas will be an advantage.

Cephalon, Inc. is a biotechnology company dedicated to the discovery and development of therapeutic agents for the treatment of neurodegenerative diseases. Recent discoveries in the core technologies at Cephalon have provided for therapeutic opportunities outside of neuroscience, including oncology and cardiovascular diseases.

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*The nation's top schools for Biological Sciences, various Chemistry disciplines and Clinical Medicine ranked by the Institute for Scientific Information's *Science Watch*, as well as the top 20 schools from *U.S. News and World Report's* annual America's Best Colleges issue.

INFORMATION MANAGEMENT SYSTEMS ANALYST

Argonne National Laboratory, located near Chicago, Illinois seeks an experienced system analyst to coordinate technical database activities for environmental assessments and restoration projects.

The ideal candidate will have considerable knowledge of commercial database software packages such as Oracle and dBase and of computer programming languages such as Fortran and C++. Candidate must also be skilled in designing, constructing, and documenting technical databases. Extensive knowledge of personal computer and workstation hardware technologies and of client-server approaches to database design, including network systems is essential. A B.S. with 6-8 years experience or an M.S. and 2-3 years experience is required.

We offer an excellent salary commensurate with your background, as well as a comprehensive benefits plan. For confidential consideration, send your resume by July 15, 1994 to: Susan M. Walker, Employment and Placement, Box EAD-112941-55, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439. An Affirmative Action/Equal Opportunity Employer.



DEAN, COLLEGE OF AGRICULTURE AND LIFE SCIENCES

Cornell University is seeking applications or nominations for Dean of the New York State College of Agriculture and Life Sciences at Cornell University.

The College of Agriculture and Life Sciences enrolls 3,000 undergraduates and 1,100 graduate students in a broad range of programs centered in 26 departments or sections at its campus in Ithaca or at the New York Agricultural Experiment Station in Geneva, New York. The college has 425 faculty and a total of 1,500 staff. The college budget is nearly \$170,000,000 including grants and contracts. The college is responsible for a broad range of undergraduate and graduate programs in the biological, social, and agricultural sciences. The Divisions of Biological Sciences and Nutritional Sciences are administered by the college jointly with other Cornell colleges. Along with the College of Human Ecology, the college has responsibility for Cooperative Extension programs throughout New York State. The college is involved in a substantial array of international programs.

We are seeking a dean who is a distinguished scholar and teacher with outstanding leadership qualities and proven administrative ability. Successful candidates should have demonstrated commitment and experience in enhancing diversity of faculty, staff, and students. The dean should be able to provide academic and administrative leadership to the faculty and students of the college and deal effectively with a wide range of external constituencies of the college. The dean serves as the principal spokesperson to the college's internal and external audiences. These external constituencies include the State University of New York, national and state government agencies, and organizations representing the diverse interests of the college.

We are particularly interested in having nominations and applications from women and members of other groups historically underrepresented on college faculties. Nominations, applications, and inquiries should be directed to: **Provost Malden C. Nesheim, Chair, Search Committee for Dean of the College of Agriculture and Life Sciences, 300 Day Hall, Cornell University, Ithaca, New York 14853-2801; tel (607) 255-2364; fax (607) 255-9412.** All applications and nominations will be treated in a strictly confidential manner and should arrive in Ithaca by **September 1, 1994.**



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The Liposome Company, a rapidly growing leader in the field of lipid-based drug delivery systems, has the following immediate opportunity available:

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Gravitational Biology Facility Project

Martin Marietta Services, Inc., in support of the NASA Ames Research Center in Mt. View, CA, has two positions available for the design of specimen habitats for the Gravitational Biology Facility Project. These positions will be responsible for defining, recommending, monitoring and/or conducting science requirements definition studies associated with the development of life sciences space flight hardware. Ph.D. with 5 years of life sciences laboratory experience desired; excellent interpersonal, writing and presentation skills and the ability to work in team and autonomous environments required.

Microbiologist

Focus on supporting habitats with microbiological applications such as small bioreactors, aquaria, and plant fluid delivery systems. Knowledge of mammalian cell/tissue culture desired.

Fresh Water Biologist

Focus on microbiological water quality management and assist in the definition of science requirements related to specimen well-being within an environmentally closed aquatic system. Extensive knowledge of the metabolic needs of Zebra Fish and Medaka is highly desired.

Applicants should forward resume indicating desired position and salary requirements to: Martin Marietta Services, Inc., PO Box 138, Moffett Field, CA 94035. Equal Opportunity Employer.

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POSTDOCTORAL RESEARCH POSITION IN CLINICAL AND EXPERIMENTAL TOXICOLOGY: Two-year opportunity to study drug metabolism and toxicity in rodent models and man. This position offers experience with chromatography, mass spectrometry, enzymology, pharmacokinetics and pharmacodynamics with emphasis in drugs of abuse. This research facility is affiliated with an IOC- and CAP-accredited drug screening, clinical toxicology and TDM laboratories. A Ph.D. in biochemistry, toxicology or pharmacology is required. Previous experience with drug metabolism and toxicity, analytical chemistry and cell culture is preferred. Send curriculum vitae, a brief summary of research interests and experience, and names, addresses, and telephone numbers of three references to: **Dr. R. A. Dean, Department of Pathology and Laboratory Medicine, Indiana University School of Medicine, 550 North University Boulevard, Room 4430, Indianapolis, IN 46202-5283. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

The USDA Agricultural Research Service, Biosciences Research Laboratory, Fargo, North Dakota has a position for **POSTDOCTORAL/RESEARCH GENETICIST** for characterization and manipulation of transposable elements in *Heliothis* pest species. Emphasis is on DNA sequencing of Mariner-like and Hobo-like elements and developing suitable transposon vectors for gene transfer research. Graduate coursework or experience in PCR, gene cloning and DNA sequencing desirable. Appointment will be for two years with starting salary from \$33,623 to \$40,298 per annum. Contact: **S. Karl Narang, USDA, ARS, P.O. Box 5674, SU Station, Fargo, ND 58105, Telephone: 701/239-1273 for further information on research project and J. A. Murchison, telephone: 301/344-3138, for application procedure. USDA/ARS/NPA is an Equal Opportunity/Affirmative Action Employer and all agency services are available without discrimination.**

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PROGRAM ANALYST

The Howard Hughes Medical Institute conducts scientific research in laboratories affiliated with leading academic medical centers in the United States and supports science education. We are seeking a **PROGRAM ANALYST** for our headquarters in Chevy Chase, MD to assist with the graduate program activities of our Office of Grants and Special Programs, which supports science education at the graduate, undergraduate and pre-college levels.

Responsibilities include coordinating fellowship program application review and payment cycles; reviewing financial and program reports from grantee institutions and fellows; developing reports and publications; publicizing fellowship programs; organizing annual meetings of fellows; and handling administrative inquiries.

Qualifications include at least 2 years of related experience, preferably in research administration or grants management. A Master's degree in biological sciences, or equivalent, including study of cellular or molecular biology, strong communication and organizational skills, knowledge of WordPerfect and Lotus 1-2-3 are also required. Laboratory research in a university environment is a plus.

HHMI offers an excellent salary and a generous benefits package including comprehensive medical insurance, retirement plan, and fitness center. Please send résumé and salary history to: **Howard Hughes Medical Institute, Human Resources Department, 4000 Jones Bridge Road, Chevy Chase, MD 20815-6789.** No telephone calls, please. Principals only.

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BIOSYM TECHNOLOGIES with its combination of scientific rigor and programming excellence, is the recognized leader in the field of computer-aided molecular design. We have a unique opportunity to create an X-ray crystallography software package which will integrate all phases of biological macromolecular structure elucidation by X-ray crystallography with state-of-the-art molecular modeling, software and are seeking two innovative and creative professionals to join the team for the design, development and validation of this software.

One position is for a **PROTEIN CRYSTALLOGRAPHER** with an overall knowledge of solving and refining macromolecular structures and a strong interest in crystallographic computing. Requires a Ph.D. in Chemistry, Biochemistry or Physics, with 2 to 5 years of experience in a crystallographic environment. Experience with "C", FORTRAN and UNIX is highly desirable.

The other position is for a **SOFTWARE ENGINEER** with a crystallographic background and experience with "C", FORTRAN and UNIX. Graphics programming experience on SGI hardware is highly desirable.

If you please these qualifications, we are interested in exploring new opportunities with you. We offer a full range of benefits, a competitive compensation plan and exciting opportunities. Please send résumé with salary history in confidence to: **BIOSYM TECHNOLOGIES, 9685 Scranton Rd., Posting #804, San Diego, CA 92121.** No telephone calls please. *Equal Opportunity Employer.*

BIOLOGIST. The U.S. Army Research Office is seeking an individual to aid in the administration of an extramural research program in the field of biology with emphasis on molecular and cellular biology (biotechnology). Duties include analyzing and evaluating proposals and reports; maintaining liaison with contractors; analyzing contractor performance; maintaining familiarity with the status of research programs relevant to Army needs; and disseminating program policies, procedures and results to interested parties. This is a Federal civilian position at the GS-12 grade level (\$41,543 to \$54,004 per annum). Applicants must possess a doctoral degree in or directly related to the biological sciences. Applications must be postmarked by August 8, 1994. For further information and application forms, contact: **U.S. Army Research Office, ATTN: AMXRO-HR, P.O. Box 12211, Research Triangle Park, NC 27709-2211, Telephone: 919-549-4212.** *An Equal Opportunity Employer. U.S. Citizenship Required.*

MOLECULAR BIOLOGY TECHNICAL SPECIALIST

Perform techniques basic to molecular biology: DNA/RNA isolation; creation of cDNA and genomic libraries; gene cloning and nucleotide sequencing; gel electrophoresis and blots; immuno-histo-chemistry. Will teach techniques to research students, supervise molecular biology support labs and prepare class laboratories in techniques of molecular biology and biochemistry. Twelve-month appointment. Minimum, appropriate Bachelor's degree with relevant experience. Send résumé of employment and technical expertise. Have three letters of recommendation forwarded to: **Dr. S. Michael, Department of Biological Sciences, Binghamton University, Binghamton, NY 13902-6000.** Closing date is July 15, 1994. *Strongly committed to Affirmative Action. Recruitment conducted without regard to race, color, sex, religion, age, disability, marital status, sexual orientation or national origin.*

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

POSITIONS OPEN

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Palatka, Florida. Minimum \$33,000. This is a senior research position for a water quality scientist, limnologist, or aquatic ecologist. Duties include: assisting in the development and implementation of a restoration project in a hypereutrophic lake in Central Florida, analyzing nutrient budget, assessing water and sediment quality, designing restoration approaches and managing contracts. Knowledge and experience in lake restoration, water quality and statistical methods required. Qualifications include: a Bachelor's degree from an accredited college in biology, limnology, chemistry, botany or an environmental science or related field and five years of experience in environmental studies. Preference will be given to persons with an advanced degree in limnology, aquatic ecology, wetland ecology or related field. Send résumé with source of ad and position number to: **St. Johns River Water Management District, Office of Human Resources, P.O. Box 1429, Palatka, FL 32178-1429.** Apply by July 15, 1994.

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SENIOR SCIENTIST

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ANNOUNCEMENTS

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310-820-6522 (FAX)**

CaP CURE, The Association for the Cure of Cancer of the Prostate, established with the goal of finding a cure for prostate cancer is soliciting proposals for its 1994/1995 funding year.

Applications (in triplicate, 3 to 5 pages only) must be relevant to basic research or clinical approaches to the treatment of prostate cancer. NIH format bibliographies and the source of current funding should be included with the proposal. We particularly encourage proposals offering an interdisciplinary approach to research. Funding will range from \$50,000 to \$200,000 and is renewable annually. The due date is August 31, 1994, with expected funding in November.

Additional information can be obtained from:

**CaP CURE, The Association for the Cure of Cancer of the Prostate
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Working closely with the molecular modeling group, NMR spectroscopists, protein biochemists, medicinal chemists, and molecular biologists, you will solve problems of biomedical interest by conducting independent research using macromolecular crystallography techniques and methodology. The research will involve elucidating the three dimensional structure of protein and protein/inhibitor complexes as therapeutic targets in areas such as anti-infectives, neurosciences, immunosciences, and degenerative diseases. We require a PhD and post-doctoral experience in Macromolecular Crystallography.

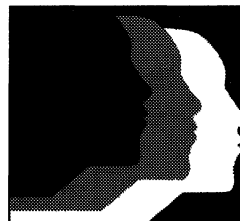
Our Protein Crystallography Laboratory is equipped with two Rigaku 12 kw rotating anode x-ray generators, a Rigaku RAXIS IIC image plate and a Nicolet-Xentronics area detector. Our computer and graphics facilities are state-of-the-art. Abbott is also a member of the Industrial Macromolecular Crystallography Association (IMCA) which is actively pursuing the construction of two synchrotron beamlines for macromolecular crystallography in the Advanced Photon Source that is proposed to be in operation in 1996 at Argonne National Laboratory.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban area, approximately 30 miles north of Chicago. For confidential consideration, please send a resume and salary history to: **Patricia Handy, D-393, J-30, Job# CAZ7500, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

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Syntex Discovery Research has openings in the Molecular Structure Department, which includes X-ray crystallographers, computational chemists and NMR spectroscopists. In close collaboration with molecular biologists, medicinal chemists and scientists from other disciplines, this group develops novel pharmaceutical agents for a variety of therapeutic areas. Job#CSM701MG1.

Computational Chemists

Participate in the design and discovery of small molecule, protein ligands using macromolecular approaches. Projects will involve both new lead discovery and optimization. Demonstrated experience with homology modeling, de novo design and/or molecular dynamics is a prerequisite. Job#CSM701MG2.

Protein Crystallographers

Participate in all aspects of macromolecular X-ray crystallography including crystallization and structure solution by MIR. Knowledge of protein-ligand interactions desirable.

A PhD in a related field with 5+ years of relevant experience required. Job#CSM701MG3.

Neuropharmacologist

This position will involve working within a multidisciplinary team of neuroscientists and neuropharmacologists dedicated to the discovery of novel therapeutic agents for the treatment of neurological diseases.

Candidates should possess a Ph.D. in a neuroscience-related field with at least 2 years of postdoctoral experience in neuropharmacology, neurochemistry, with particular emphasis in receptor binding technology. You must be innovative, possess superior communication skills, plus have the ability to implement ideas and interact effectively with colleagues in various departments. Previous industry experience preferred. Job # CSM701TW.

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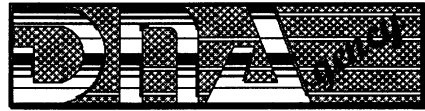
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NEW Control System

UNICORN™ and BioPilot®
With UNICORN and BioPilot, scale up is smooth and predictable, maximizing your return on investment in system control and validation.

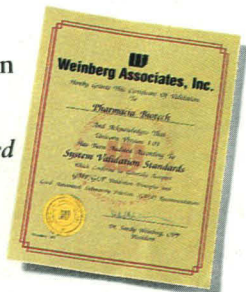


A smoother path from laboratory bench to production floor

Smooth transfer from one scale of operation to another is vital when bringing products to market. With UNICORN and BioPilot that transfer is both swift and efficient.

UNICORN is the new control system for BioPilot, the chromatography system for process development, scale up and small scale production. UNICORN complies fully with GLP/GMP requirements and includes validation support.

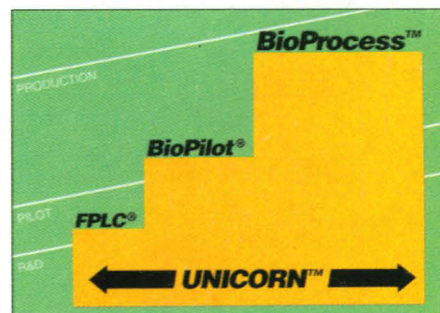
UNICORN is issued with a Validation Certificate and Report.



UNICORN Control System:

- Developed according to current FDA guidelines for software validation
- Simultaneously supervises up to four liquid handling units of any scale and complexity with control at unit level
- Displays the actual liquid flow path and the readings of the process monitors on a unique dynamic flow diagram
- Keeps the same documentation and user interface during scale up to routine production on BioProcess™ System

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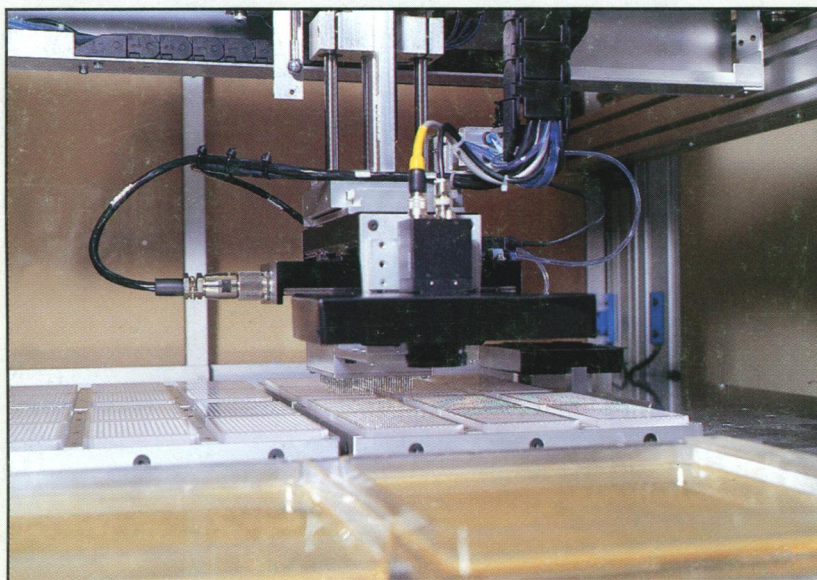
UNICORN control system is scaleable. It supervises BioPilot and BioProcess systems keeping documentation and user interface constant.

Ask for new information



Pharmacia Biotech. For information in US: 1-800-526-3593.
In Canada: 1-800-463-5800.

CUSTOM Picking and Spotting

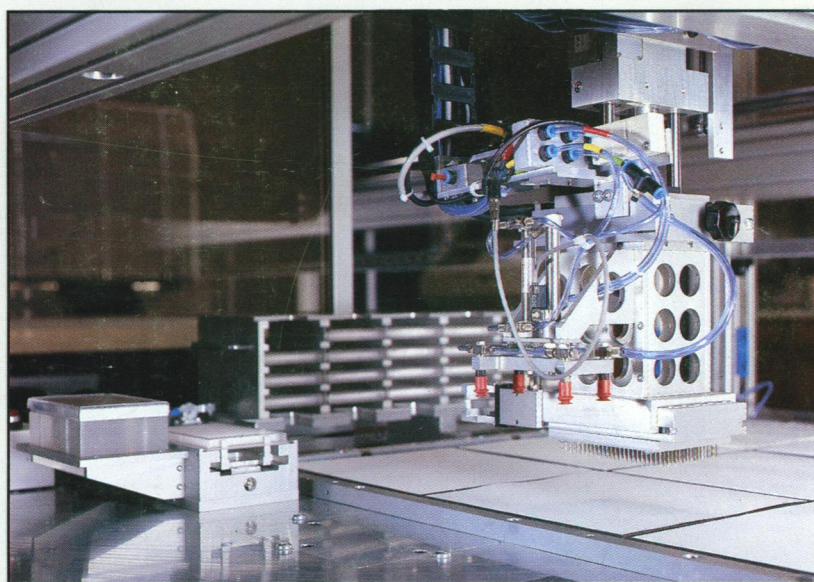


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Your library will be plated and picked into 96-well or 384-well microtiter plates. Gridded libraries are shipped complete with documentation, and each plate is numbered and bar coded. Blue-white selections may also be performed. A typical library of 50,000 clones will need only two weeks for turnaround. This service is 7 cents per colony with a \$300 set-up charge

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