

mRNA Isolation Kit

The SEROSEP mRNA Isolation Kit features oligo(dT)₃₀-coupled paramagnetized particles for the isolation of eukaryotic mRNA from total cells of tissue culture lysates. The technique can isolate mRNA in 30 min with no need for column chromatography or organic extraction. Because the oligo(dT)₃₀ particles can withstand all experimental conditions used in molecular biology, the assay can be customized to protocols that require different salt or temperature conditions for binding and elution. The particles' binding capacity is 2 to 5 µg of mRNA per milligram of particles. **Serotec. Circle 139.**

Evaporation System

The RapidVap Evaporation System can process multiple biological or analytical samples with individual volumes up to 450 ml. Vortex action, heat, and vacuum combine to achieve fast evaporation rates. Methylene chloride



evaporates at a rate up to 5 ml/min per tube and water evaporates at a rate up to 1 ml/min per tube. A microprocessor-controlled, mechanically created vortex action forces the liquid sample outward against the tube walls, increasing the surface area for faster evaporation. The vortex action also helps mix the sample and contain the analytes in the solvent for maximum sample recovery. A block heater supplies a

precisely controlled amount of dry heat from ambient to 90°C. **Labconco Corp. Circle 140.**

Protein Molecular Weight Markers

A protein molecular weight markers set is designed for use with Amersham's nonradioactive ECL protein immunoblotting system. The markers are a mixture of six different proteins that are supplied biotin-labeled for use in protein immunoblotting following SDS-polyacrylamide gel electrophoresis. Incubation with streptavidin horseradish peroxidase followed by ECL light detection results in a ladder of bands on film. The six molecular weight markers are phosphorylase b (97,400), bovine serum albumin (68,000), ovalbumin (46,000), carbonic anhydrase (31,000), trypsin inhibitor (20,100), and lysozyme (14,400). **Amersham International. Circle 141.**

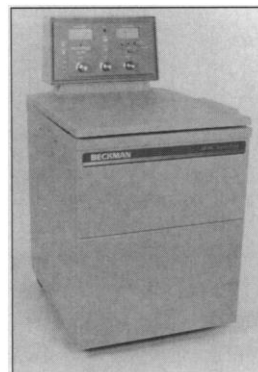
High-Purity DNA Solvents

High-purity solvents are available for use with phosphoramidite chemistry in the automated synthesis of DNA and RNA. The new DNA Synthesis Grade solvents include phosphoramidite diluents and reagents for activation, DMT removal, oxidation, and capping. Each lot of reagents is tested to ensure reproducibly high coupling efficiencies in the automated synthesis of RNA and DNA oligonucleotides. **BioGenex. Circle 142.**

Photodiode Array for HPLC

The TH series of photodiode arrays was designed for operating under the special constraints im-

posed by high-performance liquid chromatography (HPLC) instruments, eliminating the need to adapt an array designed for spectroscopy. The TH series is offered in lengths varying from 128 to 512 pixels, and the pixel size is 50 by 1300 µm. Most spectroscopy



array pixels are 2500 µm wide, which wastes space and increases the chance of light noise ruining a measurement. The TH series provides antiblooming and line reset control, a differential video output to cancel clock switching noise, a wide spectral response, on-chip temperature diodes, reduced clocking requirements, and the ability to survive ultraviolet light fields thousands times greater than a standard detector. **EG&G Reticon. Circle 143.**

Protein Purification System

The PinPoint Xa protein purification system is a reliable non-denaturing method to express and purify recombinant fusion proteins in *Escherichia coli*. PinPoint Xa vectors contain a sequence that becomes biotinylated in *E. coli*. The biotinylated protein binds to SoftLink Resin, which is functionalized with monomeric avidin. The bound protein can be released under non-denaturing conditions. A Factor Xa

protease cleavage site is located between the biotinylated peptide and target protein, allowing cleavage and purification of the protein of interest. Proteins can be purified using the PinPoint column provided or in batch mode. **Promega. Circle 144.**

Literature

The 1993/1994 *Catalogue & Reference Guide* features more than 400 products in cell culture, molecular and cell biology, and immunology. New or expanded product lines include component-deficient media, cell separation products, transfection reagents, extracellular matrix products, and new molecular biology systems. **Gibco BRL. Circle 145.**

The *LPLC Handbook* is a guide to the selection, use, and troubleshooting of column chromatography instruments. It includes a preface on basic principles of liquid chromatography followed by illustrated sections on fraction collection, detection, pumping, gradient formation, and other topics. **Isco. Circle 146.**

Chemiluminescence Applications is a 10-page booklet on the detection principle and basics of chemiluminescence and its application to high-performance liquid chromatography detection schemes. **JM Science Inc. Circle 147.**

Revco Ultima Laboratory CO₂ Incubators is a brochure on a line of microprocessor-controlled incubators. **Revco Scientific. Circle 148.**

Zeiss Fluorescence Microscopy Systems details microscopes, filter sets, and other instruments. Advanced confocal microscopes with three simultaneous fluorescence detectors are included. **Carl Zeiss. Circle 149.**

Monoclonal Antibody Purification Handbook addresses the question of the best method of purification. **Pharmacia. Circle 150.**

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

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POSITIONS OPEN

HARVARD UNIVERSITY— ASSISTANT PROFESSOR

The Departments of Biochemistry and Molecular Biology and Cellular and Developmental Biology intend to make an assistant professor appointment (entry-level) available starting September 1994. Our departments cover a broad range of topics in molecular biology, cellular biology, developmental biology, neurobiology, and molecular genetics. We are seeking outstanding candidates in any of these fields. *We strongly encourage applications from women and minority groups.* Applications should include curriculum vitae, reprints of publications, and a statement of present and future research plans (1 to 3 pages). Complete applications and three letters of recommendation, solicited by the applicant, should be received no later than October 1, 1993, by: **BMCD B Search Committee, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138. Telephone: (617) 495-2327. Harvard University is an Affirmative Action/Equal Opportunity Employer.**

Columbia University, College of Physicians and Surgeons Department of Genetics and Development FACULTY POSITIONS

One or two faculty positions at ASSISTANT or ASSOCIATE PROFESSOR level are available in any area of Genetics, Cell, Developmental and/or Molecular Biology. The Department of Genetics and Development provides graduate training in the following major research areas: regulation of gene expression and growth control of eukaryotic cells, molecular genetics of cell differentiation and development, mouse and *Drosophila* developmental genetics, genetics of human disease, linkage analysis, cancer biology, and mechanisms of genetic recombination. The research environment of Columbia University fosters interactions with basic scientists in other departments. Applications to: **Ms. Nina Steinberg, Genetics Office, Columbia University, 701 West 168th Street, Room 1602, New York, NY 10032**, should arrive by September 7, 1993, and include curriculum vitae, brief statement of research goals and interests, and names and addresses of three references.

Columbia University take Affirmative Action to ensure Equal Opportunity.

MOLECULAR IMMUNOLOGIST

The Department of Animal Sciences of the University of Illinois invites applicants for a tenure-track position as an ASSISTANT, ASSOCIATE or FULL PROFESSOR of Molecular Immunology. The successful candidate is expected to establish a strong research program in molecular immunology, in areas such as gene therapy, immunotoxicology, xenotransplantation, hemopoietic differentiation, cytokine biology, or phylogeny of the immune system. Faculty within the Department of Animal Sciences are conducting research at the molecular level in neuroimmunomodulation, immunogenetics, and mucosal immunity, as well as in basic research in reproductive biology, muscle biology, biochemistry and nutrition. Candidates should submit curriculum vitae, a description of their research background and a letter which provides reasons for their interest in the position. They should also ask three qualified individuals to send letters of reference to: **Dennis R. Campion, Head, Department of Animal Sciences, University of Illinois at Urbana-Champaign, 1207 West Gregory Drive, Urbana, IL 61801; Telephone: 217/333-3462; FAX: 217/244-2871.** Application should be received by September 1, 1993, to ensure full consideration.

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

MOLECULAR BIOLOGY CORE DIRECTOR FOR MUSCULOSKELETAL RESEARCH INSTITUTION

Leading Manhattan teaching hospital specializing in orthopaedics and rheumatology has an opportunity for a Ph.D. with research interest in immunology, musculoskeletal disease, bone or cartilage biology, etc. Send curriculum vitae and names, addresses and telephone numbers of references before September 1, 1993, to: **Ann White, Assistant Director of Human Resources, The Hospital For Special Surgery, 535 East 70th Street, New York, NY 10021. The Hospital For Special Surgery is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

SUNY HEALTH SCIENCE CENTER AT SYRACUSE

FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

We invite applications for two tenure-track positions. While we expect to make appointments at the ASSISTANT PROFESSOR level, candidates at higher levels also will be considered. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Applicants must have a Ph.D., M.D. or equivalent degree, postdoctoral experience, demonstrated research productivity and a commitment to excellence in teaching medical and graduate students. Send letter of application (with curriculum vitae and summary of research plans) and have three letters of reference forwarded to: **Dr. Harvey S. Penefsky, Chair, Search Committee, Department of Biochemistry and Molecular Biology, State University of New York Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210.** Review of applications will begin November 1, 1993, and continue until the positions are filled.

An Affirmative Action/Equal Employment Opportunity/ADA Employer.

HARVARD MEDICAL SCHOOL CENTER FOR BLOOD RESEARCH PROFESSOR OF PATHOLOGY

The Department of Pathology at Harvard Medical School and the Center for Blood Research are jointly seeking to fill a Professorship of Pathology. This is an open search with no internal or otherwise identified candidate. Candidates should have dynamic scientific leadership as demonstrated by their scientific accomplishments and international reputation. The field of search is broad, and includes immunology, protein biochemistry, receptors and signal transduction, cell biology, and vascular biology. The position offers significant scientific and scholarly resources and the candidate will participate in teaching graduate and medical students. The candidate is expected to direct a vigorous research program and will be located in Center for Blood Research space in the recently constructed Warren Alpert Building on the main quadrangle at Harvard Medical School.

Candidates should send curriculum vitae and statement of research interests, and three references to: **Professor Timothy Springer, Search Committee Chair, Center for Blood Research, 200 Longwood Avenue, Box 1, Room 251, Boston, MA 02115.**

Harvard Medical School is an Affirmative Action/Equal Opportunity Employer. Qualified female and minority applicants are encouraged to apply.

ASSISTANT OR ASSOCIATE PROFESSOR EXPERIMENTAL PATHOLOGY

The Department of Pathology, University of Oklahoma Health Sciences Center, Oklahoma City, invites applications for a tenure-track position at the assistant or associate professor level. The position will be in experimental pathology and we seek candidates in the following areas: Neuroscience, cardiovascular biology, and endothelial cell biology. The successful candidate will be expected to establish and maintain a vigorous and funded research program and participate in teaching at the graduate level. Candidate should have a M.D., Ph.D., or equivalent and postdoctoral research experience in an area related to his/her planned research program.

Applicants should submit curriculum vitae, a concise description of research interests and goals, and the names, addresses and telephone numbers of three references to: **Dr. Lawrence E. DeBault, Chairman of Search Committee, Department of Pathology, P.O. Box 26901, Oklahoma City, OK 73190.** Deadline for receipt of applications is September 15, 1993. *The University of Oklahoma is an Affirmative Action/Equal Opportunity Employer.*

MANAGER CLINICAL SEROLOGIC SERVICES. Anmed/Biosafe Inc. seeks an M.S./Ph.D. for the position that provides central core support to the Biotechnical and Diagnostic Services divisions at the company. In addition to a degree in Immunology or Virology the candidate should have supervisory experience and knowledge of immunoassay methods, e.g., ELISA. Applicants are invited to submit a résumé and salary objective to: **Anmed/Biosafe Inc., 7642 Standish Place, Rockville, MD 20855.**

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CLINICAL VETERINARY PATHOLOGIST – Supervise and perform animal necropsies, evaluate the clinicopathologic and histopathologic data from animal safety studies to define safety profiles of vaccines, and provide diagnostic pathology services for research projects and animal care. You must be a Doctor of Veterinary Medicine with certification from the American College of Veterinary Pathology and have five years of experience in diagnostic clinical pathology in livestock and companion animal diseases. Effective communication skills are required.

IMMUNOLOGY

PROJECT MANAGER, DISEASE PATHOGENESIS – Define immune mechanisms and develop immunological techniques for understanding disease pathogenesis. A PhD in Microbiology or Immunology and four years of post-doctoral experience in disease evaluation demonstrating an understanding of pathogenesis of infectious diseases are required. A Doctor of Veterinary Medicine with experience in immunocytochemistry in situ hybridization and knowledge of ex vivo systems would be ideal.

ASSISTANT PROJECT MANAGER – Design, coordinate & execute immunological research, enhance the antigenicity and efficacy of vaccine antigens by developing new adjuvants and delivery systems, develop monoclonal antibodies, and support research teams. A PhD in Microbiology or Immunology and two years of post-doctoral experience including flow cytometry and contemporary immunological techniques to evaluate immune responses to infections and vaccinations are required.

POST DOCTORAL SCIENTIST – Support research activities for antigen identification and characterization of protective immune responses to viral and bacterial pathogens. A PhD in Immunology with a focus on infectious diseases of the respiratory tract of animals and experience with in-vitro growth of B & T lymphocytes are required.

BACTERIOLOGY

PROJECT MANAGER – Define immunogens important for protection, develop and standardize reagents and assays, and provide expertise to develop models and systems for disease evaluation & processes. A PhD in Microbiology or Bacteriology and four years of post-doctoral experience including a demonstrated knowledge of molecular mechanisms of pathogenesis are required. Experience in the development and evaluation of veterinary bacterial vaccines is desirable.

VIROLOGY

PROJECT MANAGER – Develop companion animal vaccines to licensure. This includes generating reagents for in-vitro assays and identifying and purifying viral pathogens. A PhD in Microbiology or Virology and four years Post Doctoral experience in the growth and replication of viruses, protein purification, and animal study experience is required. Experience in veterinary vaccine development is desired.

SENIOR SCIENTIST – Adapt and apply new technologies for solid phase or suspension production of virus products in bioreactors, develop capital and reagents to support production of viral products, and develop validated processes for scale-up production of viral antigens under GLP conditions. MS in Virology or Cell Biology (or equivalent education/experience) and at least four years of experience with virus cell culture production in bioreactors for large scale production required. Experience must include viral pathogens and viral assays using genetic and serological probes.

BIO PROCESS DEVELOPMENT

ASSISTANT PROJECT MANAGER – Conduct and oversee methods development, scale-up, purification and characterization of membrane and recombinant proteins, help validate processes under GLP/GMP conditions, transfer procedures and protocols to manufacturing, and evaluate and recommend novel, cost-effective separations technologies. A PhD in Biochemistry (or equivalent education/experience) plus two years of post-doctoral experience in process biochemistry, methods development and scale-up are required; experience with recombinant proteins, process scale chromatography and cross-flow filtration preferred.

PROCESS ENGINEER – Provide core engineering expertise for downstream process development, lead routine laboratory activities to develop, optimize and validate production processes for transfer to manufacturing under GLP/GMP conditions. A Master's in Biochemical Engineering (or equivalent education/experience) with three years of experience in process development and engineering including protein purification technologies and pilot scale-up required. Previous supervisory experience will be a plus.

R&D BENCH SCIENTISTS & ASSOCIATES – Positions available in Virology, Molecular Biology and Immunology require at least a Bachelor's degree plus two years of lab experience in the respective field.

SmithKline Beecham Animal Health offers excellent compensation – including benefits and generous relocation assistance – and the world presence to bring your goals within reach. Send your C.V. in confidence to: Eric Erickson, SmithKline Beecham Animal Health, 601 W. Cornhusker Hwy., Lincoln, NE 68521. Dedicated to Workforce Diversity, we are an Affirmative Action/Equal Opportunity Employer.



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POSITIONS OPEN

FACULTY MEMBER ONCOLOGY

The State University of New York at Stony Brook is recruiting a medical oncologist for a tenure-track position in the Division of Oncology of the Department of Medicine. The candidate must have an independent research program and will be expected to qualify for external funding. The candidate may be from the **ASSISTANT PROFESSOR to FULL PROFESSOR** level and be board certified/qualified in medical oncology. Excellent laboratory facilities are available in a superb scientific environment. The Division of Oncology has nine faculty members with strong ties to university graduate programs in cell and molecular biology and molecular pharmacology. The successful candidate would also be expected to participate in clinical and teaching programs in the division. Applications and nominations should be sent to: **Michael Viola, M.D., Director, Cancer Center, Room HSC-17-080, SUNY, SB, Stony Brook, NY 11794. Telephone: 516-444-1727.**

The University at Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.

MOLECULAR NEUROBIOLOGIST

The University of Chicago Department of Anesthesia and Critical Care invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** to begin January 1994. We are seeking candidates whose primary interests are in the molecular structure and function of neurotransmitter receptors and/or ion channels. The Department has a strong research group with interests in mechanisms of anesthesia and analgesia, cerebrovascular pharmacology and neuroprotection. The successful candidate will be able to develop a vigorous research program to the point of attracting independent funding, and may have the Ph.D., M.D. or M.D./Ph.D. degree. There is an excellent scientific environment at the University, and the prospects of joint appointment with a basic science department are excellent for the successful candidate. Recently renovated laboratory and office space will be ready early in 1994. *Applications from women and underrepresented minorities are encouraged.* Send curriculum vitae and statement of research interests, and the names of three referees to: **Dr. N. L. Harrison, Department of Anesthesia and Critical Care, 5841 South Maryland Avenue, Chicago, IL 60637. The University of Chicago is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH DIRECTOR EMINENT SCHOLAR CHAIR HOLDER IN PEDIATRIC ORTHOPAEDICS

The University of South Florida College of Medicine and the Shriners Hospitals of North America are seeking an outstanding scientist to hold an Endowed Chair at the USF College of Medicine and to serve as Research Director at the Shriners Hospital for Crippled Children, Tampa Unit, coordinating a research program that is focused on musculoskeletal science. Research groups are already established in the areas of cartilage growth factors, embryonic and postnatal development, proteoglycan structure and function, and connective tissue metabolism. Applicants for the position should possess a Ph.D. or M.D. degree and have a distinguished record of research contributions in the field of either molecular biology, molecular genetics, cell and developmental biology, biochemistry or bioengineering. Preferences will be given to individuals who have a history of sustained extramural funding and who are interested in both basic and clinically relevant research. Please send curriculum vitae to: **Larry C. Carey, M.D., Chairman, USF Department of Surgery, Harbourside Medical Tower, 4 Columbia Drive, Suite 430, Tampa, FL 33606.** Deadline for applications is September 15, 1993. *The University of South Florida is an Equal Opportunity/Equal Access/Affirmative Action Employer.*

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POSITIONS OPEN

CHAIRPERSON Department of Microbiology

The College of Physicians and Surgeons of Columbia University seeks appropriate candidates for the Chair in Microbiology. The candidate should possess the Ph.D. or M.D. degree, have an outstanding record of research and possess administrative ability. Letters of application should include complete curriculum vitae, bibliography, and a list of references, and be addressed to: **David Hirsh, Ph.D., Chairman, Department of Biochemistry and Molecular Biophysics, Columbia University, College of Physicians & Surgeons, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

Seeking Research Division **DIRECTOR** of the Barbara Davis Center for Childhood Diabetes, University of Colorado Health Sciences Center, to fill position vacated by **Kevin Lafferty, Ph.D.** Outstanding research program related to the immunology/immunobiology of islet autoimmunity/transplantation and demonstrated administrative ability required. Please send curriculum vitae to: **George Eisenbarth, M.D., Ph.D., Barbara Davis Center for Childhood Diabetes, Box B140, University of Colorado Health Sciences Center, Denver, CO 80262.**

The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.

EXECUTIVE OFFICER

The American Association of Anatomists seeks a part-time Executive Officer (20% effort) to manage an office at FASEB Headquarters, Bethesda, Maryland, and interact with EO's of the other eight member societies. Main responsibilities include (1) interaction with the AAA Executive Committee, (2) maintain a liaison with FASEB through an advisory committee of the Federation and its constituent societies; and (3) assist in managing the affairs of the AAA, its publications, meetings, reports and other activities.

Interested individuals should address inquiries or send applications to: **Search Committee for an Executive Officer, American Association of Anatomists, 9650 Rockville Pike, Bethesda, MD 20814-3998.**

An application should consist of a letter of interest, curriculum vitae and a listing of the names of three individuals willing to provide letters of reference.

Preferential consideration will be given to individuals with the following qualifications: residency in the immediate vicinity of Bethesda; experience in management (of a department, research office, or non-profit organization); formal training in the discipline of anatomy.

Xenometrix inc.

Xenometrix Inc. invites applications for a **LABORATORY DIRECTOR** and a **DIRECTOR OF MANUFACTURING**. Laboratory Director will oversee and direct several teams of Ph.D.-level scientists doing cutting-edge research in molecular toxicology and molecular information. Successful applicant will have a Ph.D. in a related field and experience managing highly talented scientists. Director of Manufacturing will set up and run manufacturing of cell-based toxicity testing kits in a GMP environment. Xenometrix offers competitive salaries and benefits including a meaningful stock option plan. Please send applications, names of references, and salary histories to: **Dr. Spencer Farr, Xenometrix Inc., 2860 Wilderness Place, Boulder, CO 80301.**

IMMUNOLOGIST. POSTDOCTORAL POSITION available for molecular immunologist for a one-to-two-year project studying the mechanisms of unresponsiveness induced in B cells in animal model systems. Cortech, Inc. is a biopharmaceutical R&D company with an immunology program directed toward the specific immunosuppression of deleterious antibody responses in allergy and autoimmune disease. This project would be carried out in collaboration with Drs. L. Wysocki and D. Nemazee at the National Jewish Center for Immunology and Respiratory Medicine, Denver.

Please send curriculum vitae and three references to: **Cortech, Inc., Human Resources, 6850 North Broadway, Unit G, Denver, CO 80221.**

POSITIONS OPEN

GEORGIA INSTITUTE OF TECHNOLOGY announces a vigorous program of expansion in the School of Chemistry and Biochemistry. Applications for tenure-track **FACULTY POSITIONS** from all areas of chemistry, including analytical, biochemical, inorganic, organic, and physical chemistry, are invited. Preference is given to applications at the junior level, but applications from outstanding individuals with established research programs are also encouraged. We are particularly interested in candidates who will strengthen existing thrusts in materials science, environmental chemistry, structural and mechanistic biochemistry, and bioorganic chemistry. *Georgia Tech is committed to diversity in its faculty and students and encourages applications from women and minority candidates.*

Candidates should send curriculum vitae, a statement of research plans, and the names of at least three references. For the rank of assistant professor, letters of reference should be requested directly by the candidate. All materials and requests for information should be directed to: **Chairman, Faculty Search Committee, School of Chemistry and Biochemistry, Code SCI-11, Georgia Institute of Technology, Atlanta, GA 30332-0400.** We will begin evaluating applications September 1, 1993. However, new applications will be considered until the positions are filled. *An Equal Education/Employment Opportunity Institution.*

POSTDOCTORAL POSITION. Available immediately to conduct research on the mechanobiology of human endothelial cells with emphasis on the mechanisms of intimal hyperplasia and thrombosis. Studies of interest include: signal transduction mechanisms, transcriptional regulation, and gene therapy. Broad experience in molecular biology required. Excellent opportunity for those with interests in vascular biology. Send résumé and names of three references with telephone numbers to: **Dr. Scott L. Diamond, Bioengineering Laboratory, 907 Furnas Hall, The State University of New York, Buffalo, NY 14260.**

POSTDOCTORAL POSITION available for recent Ph.D. to study protein folding using biophysical, biochemical and molecular biology approaches (Tasayco and Carey, *Science*, 255, 594-597 (1992)). Experience in protein chemistry required. Send curriculum vitae including research experience, name and address of three references to: **Dr. Maria Luisa Tasayco, Chemistry Department, City College of the CUNY, Convent Avenue and 138th Street, New York, NY 10031; or by Email to: mltj@carmen.sci.cuny.cuny.edu.**

POSTDOCTORAL POSITION starting September 15, 1993, to study influence of genetic variation on physiological performance in clonal sea anemones. Experiments seek to understand mechanisms of genetic modulation of metabolic pathway fluxes and related patterns of fuel storage and use. Applicants should have a Ph.D. in cell biology, comparative physiology or regulation of metabolism. Experience in biochemistry, radiotracer studies preferred. By August 14, 1993, send letter describing research experience, curriculum vitae, and names of three references to: **Dr. William E. Zamer, Department of Biology, Lake Forest College, Lake Forest, IL 60045.**

MOLECULAR NEURO-ONCOLOGY

POSTDOCTORAL POSITION available immediately to join an established molecular neuro-oncology research group. Research focuses on expression and regulation of growth and angiogenic factors in human brain tumors. Antisense and antigenic technologies are being investigated. Experience in molecular biology and ability to perform independent research are required. Salary dependent upon experience. Excellent fringe benefits. Send curriculum vitae and references to: **W. K. Alfred Yung, M.D., Department of Neuro-oncology-Box 100, U. T. M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030. Equal Opportunity/Affirmative Action Employer. Smoke-free environment.**

POSTDOCTORAL POSITION to work on projects relating to the molecular mechanisms of blood vessel growth and endothelial differentiation. Candidate should have relevant doctoral degree and strong background in molecular biology, endothelial cell biology or developmental biology. Send curriculum vitae and the names of three references to: **Dr. Kevin Peters, Duke University Medical Center, Box 3623 Sands Building, Durham, NC 27710.**

PUBLIC HEALTH SERVICE • NATIONAL INSTITUTES OF HEALTH • NATIONAL CANCER INSTITUTE

A Senior Executive Service Vacancy

**ASSOCIATE DIRECTOR - CANCER PREVENTION RESEARCH PROGRAM
DIVISION OF CANCER PREVENTION AND CONTROL**

Opening Date: July 26, 1993

Closing Date: August 30, 1993

Location: Rockville, Maryland

The Associate Director, Cancer Prevention Research Program, is responsible for implementing and monitoring a world-wide cancer prevention research program designed to provide prompt identification and study of new leads in cancer prevention. The Cancer Prevention Research Program has a staff of 57 who administer a large intramural and extramural program with a budget of approximately \$41 million annually.

This is a Civil Service position in the Senior Executive Service (SES) with an annual salary from ES-1 to ES-6 (currently \$92,900 to \$115,700 per annum). In addition, physicians may be eligible for a Physicians Comparability Allowance up to \$20,000 per year. (Applicants alternatively may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.) The individual selected, if not presently in SES, must serve a one-year probationary period.

Applicants must meet the minimum educational requirements for either a Health Scientist Administrator, GS-601, or Medical Officer, GS-602. Applicants must further meet established mandatory professional/technical and managerial/executive requirements. Applicants will be further evaluated on the degree to which they possess desirable qualifications, in the areas of additional professional/technical qualifications, additional managerial/executive qualifications, scientific reputation/peer recognition, training and education, and honors and awards. A copy of the requirements may be obtained by contacting Mr. Duane Phillips in the Personnel Management Branch, NCI, at (301) 496-8182.

Applications for Federal Employment (SF-171), are to be sent to: **Mr. Duane Phillips, The National Cancer Institute, Personnel Management Branch, Building 31, Room 3A16, 9000 Rockville Pike, Bethesda, Maryland 20892.** A current curriculum vitae and bibliography must accompany all applications. Resumes are not acceptable applications for entrance into the SES. Public Health Service Commissioned Officers wishing to enter the SES must follow the above procedures. Officers interested in performing the duties of the position within the Commissioned Corps may submit a resume to the above address. ***Applications must be received by August 30, 1993.***

Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization.

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As the next logical step in a career distinguished by high attainment in science or engineering and leadership at senior level, and/or in management of a large science/engineering-orientated organisation in the public or private sector, you will, as Director General, have the opportunity to make a substantial contribution to the nation's future success.

A strong negotiator, with considerable interpersonal skills, you will use your proven experience in the management of change to lead the future development of the Research Councils, and will work closely with the Government's Chief Scientific Adviser and with the Head of the Office of Public Service and Science.

The appointment will be full time for three to five years in the first instance, with possible extension by mutual agreement, although a substantial part-time commitment might be considered. Salary will be up to £90,400, including performance bonus, although more may be available for exceptional qualifications or experience. Relocation assistance may be available.

The Civil Service is an equal opportunities employer.

RAS

For further details and an application form (to be returned by 17th September 1993) write to Recruitment & Assessment Services, Alencon Link, Basingstoke, Hampshire RG21 1JB, England or telephone Basingstoke (0256) 468551. Please quote Ref. B/1959.

Recruitment
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Putting People And Service First

BIOTECH UPDATE

Genetically engineered crop protection brings a new dimension to agriculture.

At the Agricultural Research Division of American Cyanamid, we've developed a significant in-house biotechnology capability. Our work has fostered major advances in the development of genetically engineered crop plants. At our state-of-the-art research laboratories, you'll find an interdisciplinary work environment where innovative thinking is nurtured. Right now we have an immediate opportunity for:

Senior Research Biologist/PhD

We seek a candidate to develop novel procedures for **genetically transforming major crop plants, especially maize**, and produce and evaluate transgenic plants with novel potentially useful traits. Applicants should have a PhD degree and two years of postdoctoral experience in plant cell, molecular biology and genetics.

In addition to our unique interdisciplinary environment and history of new product innovations, American Cyanamid Company offers a competitive salary and excellent benefits, including a 401K Savings Plan, and a convenient location just one hour from New York City or Philadelphia. We invite you to forward your resume and salary history to: Employment Office, Dept. RC, American Cyanamid Company, Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer.



Associate Dean for Research - The University of California, Davis, School of Medicine announces the search for an Associate Dean for Research. The Associate Dean will be assigned the primary responsibility for maintaining and enhancing the research stature of the School of Medicine and will serve as an advocate for the research activities within the School, the Medical Center, and the University. With an entrepreneurial leadership approach, incumbent should be innovative and effective in facilitating research support in the School of Medicine including outreach toward industry. Candidate should have administrative experience in grant acquisition; familiarity with government and nongovernment grantor and industry research funding policies; demonstrated scholarly activities/research, with documented, long-term grant support having had a major NSF or NIH grant or its industrial equivalent; and strong interpersonal, organizational and communication skills. The successful candidate must possess a Ph.D. and/or M.D. degree and be academically qualified for appointment at the Professorial level in one of the departments of the School of Medicine.

Please forward the following: (1) letter describing administrative, teaching, and research background; (2) curriculum vitae; and (3) names and addresses of five references to Fitz-Roy Curry, Ph.D., Chair, Search Committee for Associate Dean for Research, c/o Karen Eilers, Office of the Dean, School of Medicine, Medical Sciences I-C, University of California, Davis, California 95616. This position will be "Open Until Filled". Applications will not be accepted after November 15, 1993. The Search Committee will begin review of applications two weeks after publication of position announcement.

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

DESIGNED FOR GREAT SCIENCE.

Genentech's Postdoctoral Fellowship Program is designed to produce great science. Our commitment to

the quality and diversity of our research efforts combined with our unparalleled facilities and funding creates an ideal environment for scientific discovery.

Postdoctoral Scientists

We are continually seeking new Postdoctoral Scientists to join us in our highly collaborative and well-funded postdoctoral program.



A critical component of our remarkably varied research efforts, Genentech Postdoctoral Fellows comprise 1/3 of our PhD-level staff. To support their efforts, our R&D facilities are designed to foster an open, highly interactive atmosphere.

Combined, these elements create an outstanding environment for top talent in many

fields of biological science. Consider the following areas:

- Leukocyte Cell Adhesion
- Immunobiology
- Cell Genetics

- Cell Biology
- Molecular Biology
- Protein Engineering

If our research interests you, please forward your C.V. to Human Resources, Dept. NS/PD, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal opportunity employment.

Genentech, Inc.

Senior Research Microbiologist Industrial Microbiology Research

We have an opportunity for an experienced Microbiologist to join our product development team and take responsibility for research on microbiocidal properties of water sanitizing agents. Experience with problems of water sanitation and water microbiology is a requirement for this position; experience with algae would be useful. A Ph.D. in Microbiology with postdoctoral experience or equivalent industrial research and product development experience is required.

Excellent oral and written communication skills as well as the ability to solve problems and interface directly with customers are required. Experience with bioremediation and/or biodegradation is a plus.

Olin provides an excellent salary and benefit package as well as relocation. Please send your resume and qualifications, in confidence, to: Anthony Cydylo, Employee Relations Manager, Olin Research Center, 350 Knotter Drive, Cheshire, CT 06410. Olin is an Equal Opportunity/Affirmative Action Employer M/F/D/V.

Olin

CHAIR COMPARATIVE MEDICINE AND PATHOLOGY

The Division of the Biological Sciences of the University of Chicago solicits applicants to lead its academic program on Comparative Medicine and Pathology. The successful candidate will be a scientist with a D.V.M. degree and a record of scholarship and leadership. The candidate selected will be appointed to a faculty rank commensurate with his or her qualifications.

The academic base of the veterinary faculty is presently the Committee on Comparative Medicine and Pathology and it is expected to expand substantially under the new leadership, qualifying for departmental status. The current faculty of the Committee are appointed in appropriate academic departments and pursue independent scholarly work in addition to clinical and teaching activities. The candidate selected for the Chair of this academic unit is expected to establish a competitive, nationally-recognized research and teaching program, guide the faculty in performance of their research, teaching and clinical activities and oversee the Animal Resources Center. The Animal Resources Center is a 90,000 gsf operation that is key to the activities of a prestigious general research program of the University's faculty.

Please address nominations and letters of interest, along with a current curriculum vitae and three representative publications, to Dr. Julian Solway, Chair, CCMP/ARC Search Committee-c/o D. Torgeson, The University of Chicago, 5841 South Maryland Ave., MC 1000, Chicago, IL 60637.



**THE UNIVERSITY
OF CHICAGO**

The University of Chicago is
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POSTDOCTORAL OPPORTUNITY BACTERIAL VACCINE R&D

Lederle Praxis Biologicals, a division of American Cyanamid Co., is recognized internationally as a leader in the research, development and manufacture of vaccines for prevention of viral and bacterial disease. Currently, we are seeking an energetic and talented individual to join our Bacterial Vaccine Research Group and participate in a project involving the manipulation of genes for bacterial virulence factors and the evaluation of biological/immunological activities of recombinant proteins.

The individual we seek will be a recent graduate of a PhD program in Molecular Biology, Microbiology or Biochemistry. Preference will be given to individuals with hands-on experience in molecular biology techniques.

We offer an excellent salary and benefits package, including a 401(k) savings plan, and a convenient Rockland County location 25 miles north of New York City. If you're ready to make a contribution to a challenging program, send your resume to: CG-JK, Personnel Section, Lederle Praxis Biologicals, Pearl River, NY 10965.

Equal Opportunity Employer.



PhD Research Scientist Immunopharmacology

Pfizer, a U.S. based multinational pharmaceutical company, has an immediate opening for an immunologist to contribute to our ongoing drug discovery efforts in the area of immune suppression.

Based in our Central Research Division located in Groton, Connecticut, you will become involved in areas of cell biology that will enhance understanding of cellular regulation at the molecular level and lead to the identification of new molecular targets for drug discovery. Initially, you will focus on dissecting the intracellular signalling pathways required to generate immune tolerance and establishing *in vitro* and *ex vivo* systems for induction of antigen-specific T cell anergy. An understanding of the pathophysiology of autoimmune diseases as well as transplantation and the role that T cells play in the disease/rejection process would be an asset.

Candidates should have a PhD or equivalent degree in immunology, cell biology, biochemistry, molecular biology, or related field, as well as post-doctoral experience. Excellent communication skills essential. Several years of industrial experience would be a distinct advantage.

Pfizer's research environment provides an opportunity to interact with scientists from several disciplines. In addition, we offer a competitive compensation/benefit package and provide generous relocation assistance to our southeastern Connecticut shoreline community.

Qualified applicants may send a resume and cover letter along with names of three references to: **Ms. Ellen Buller, Supervisor, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** We are an equal opportunity employer.



Central Research
Bringing science to life.

Opportunities for Senior Scientists in Multi-disciplinary Research Program

The U.S. Environmental Protection Agency (EPA) is seeking two senior (S/T) research scientists with expertise in monitoring and assessment to lead exploratory research activities for the national Environmental Monitoring and Assessment Program (EMAP). EMAP is an innovative, multi-agency program designed to estimate status and trends in the condition of our nation's ecological resources. Applicants should possess technical proficiency in terrestrial, freshwater, marine, and/or landscape ecology. Experience with ecological indicators, monitoring at regional and national scales, and/or multiple-resource integration is highly desirable.

Positions for exemplary scientists may be located at any one of the following Office of Research and Development (ORD) laboratories depending on the compatibility of the incumbent's background with the mission of the particular laboratory: Atmospheric Research and Exposure Assessment Laboratory-Research Triangle Park, Environmental Monitoring Systems Laboratory-Las Vegas, Environmental Research Laboratory-Narragansett, Environmental Research Laboratory-Gulf Breeze, Environmental Research Laboratory-Duluth, Environmental Research Laboratory-Corvallis, or Environmental Research Laboratory-Athens.

Applicants must submit an original and three (3) copies of: (1) an SF-171, Application for Federal Employment; (2) a narrative statement specifically addressing their accomplishments and/or potential to provide leadership in the technical factors; and (3) the "EPA Applicant Race and National Origin Identification" form (optional). Applications WITHOUT documents 1 and 2 will be considered INCOMPLETE and will not receive consideration for this position. Application material must be received or postmarked by September 15, 1993, and should be sent to:

Chaunta A. Gladney
U.S. Environmental Protection Agency
OARM/OHRM/Executive Resources & Special Programs Division
401 M Street, S.W., Room 3910E, PM-224
Washington, DC 20460
ATTN: S/T-EMAP

Human Resources Contact: Chaunta A. Gladney, (202) 260-3336

Technical Contact: Thomas L. Baugh, (202) 260-5776

NOTE: APPLICANTS WILL BE DISQUALIFIED IF ALL SPECIFIED APPLICATION MATERIALS ARE NOT SUBMITTED. PLEASE SUBMIT ORIGINAL AND THREE (3) COPIES OF ALL APPLICATION MATERIALS.

RESUMES ARE NOT ACCEPTABLE AS APPLICATIONS.

THE U.S. EPA IS AN EQUAL OPPORTUNITY EMPLOYER.

ANNOUNCEMENT



POTAMKIN PRIZE FOR ALZHEIMER'S DISEASE RESEARCH

A prize of \$100,00 will be awarded by the American Academy of Neurology to a person in recognition of major contributions to the understanding of the causes and the prevention, treatment, and ultimately the cure for Alzheimer's disease and related disorders.

Candidates may be nominated on a world-wide basis from any of the biological disciplines including biochemistry, molecular biology, molecular genetics, pharmacology, immunology, physiology, cell biology, neuropathology or epidemiology.

A nomination application, nominating letter citing the scientific accomplishments of the candidate in detail, two supporting nominating letters, a curriculum vitae, and up to six (6) selected reprints in nine (9) complete sets are required.

The deadline for receipt of materials is November 1, 1993. No nomination will be considered unless it is complete. The awardee must be present for the AAN Scientific Program, at the annual meeting in Washington, DC, U.S.A. on Tuesday, May 3, 1994.

Request application and submit nomination to:

Potamkin Prize for Alzheimer's Disease Research
Award Committee
American Academy of Neurology
2221 University Avenue S.W.-Suite 335
Minneapolis, MN 55414
(612) 623-8115

The Potamkin Prize is funded through the philanthropy of the Potamkin Foundation.

Imagine The Possibilities

At Berlex, we've been building an impressive team with some of the finest talent in the pharmaceutical industry. To meet the challenges before us, we're seeking professionals to help advance our scientific mission and arrive at new possibilities in Oncology and Cardiovascular research. If you've been looking for the opportunity to join forces with an internationally recognized pharmaceutical team, imagine building your career with Berlex at our new state of the art Richmond, California facility.

PCR Research

As a member of the Molecular Biology Department, you will oversee the PCR area. You must be highly skilled in PCR, including PCR cloning, quantitative PCR and RNA isolation. In addition, you must be highly organized with excellent oral and written communication skills to accurately document results and progress. You will advise and train others in PCR techniques and experimental design. Library construction and cDNA cloning skills are a plus. You must possess 2+ years PCR experience and an advanced degree in molecular biology, genetics or a related field.

As a U.S. subsidiary of an international Fortune 500 company, Berlex offers competitive salaries and benefits, along with the stimulating challenges of our basic research environment. To join our preeminent team, please send your resume today, to: **BERLEX BIOSCIENCES, HR EMPLOYMENT, DEPT 030, 15049 SAN PABLO AVENUE, RICHMOND, CA 94804-0099.** MFVSR-EOE.

BERLEX

The Best Is Yet To Come

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA AND CANADIAN WILDLIFE SERVICE RESEARCH CHAIR IN SEABIRD ECOLOGY

Applications or nominations are invited for a Research Chair in Seabird Ecology, situated at Memorial University of Newfoundland. The Chair will head an Atlantic Cooperative Wildlife Ecology Research Network that is being developed at Acadia University, University of New Brunswick and Memorial University of Newfoundland in partnership with the Natural Sciences and Engineering Research Council of Canada and the Canadian Wildlife Service/Atlantic Region. The research network will use interdisciplinary approaches to address fundamental and applied problems in wildlife ecology and conservation in marine, coastal and forest ecosystems, with emphasis on bio-indicators of environmental health and change. The Chair in Seabird Ecology will coordinate Associate Research Chairs working in coastal and forest ecosystems through Acadia University and the University of New Brunswick respectively. The position will be filled by an internationally-established scientist with demonstrated ability to develop multi-disciplinary research projects that embrace marine, coastal and forest ecosystems. The appointment will be made as a tenured Full Professor in the appropriate academic department at the Memorial University of Newfoundland.

The closing date for applications is 15 September 1993. Enquiries or nominations and applications with the names of three referees should be sent to:

Dr. Kevin Keough
Vice-President (Research)
Memorial University of Newfoundland
St. John's, Newfoundland A1C 5S7
Telephone: (709) 737-2530
Fax: (709) 737-2552
Telex: 016-4101
Email: kkeough@kean.ucs.mun.ca

All applications will be considered but in accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Memorial University is committed to employment equity and welcomes applications from all qualified candidates.



TOXICOLOGY

Amoco's Environment Health and Safety Department in Chicago, Illinois, has two positions available in its Product Stewardship and Toxicology Division.

One position involves conducting toxicologic and regulatory evaluations of Amoco products intended for domestic and international markets. Applicants must have a B.S. or M.S. in Toxicology or a related discipline. Some industry experience would be advantageous. Teamwork and strong interpersonal skills are expected.

The second position involves the preparation and review of health and environmental risk assessments, coordination of toxicity testing, and the evaluation of human and environmental health information. Applicants must have a degree in Toxicology or a related discipline (Ph.D. preferred). Some industry experience would be advantageous. The ideal candidate would have training and/or experience in both human and ecological assessment.

Amoco offers an excellent compensation and benefits package. For consideration, reply with resume and salary history to:



AMOCO CORPORATION
200 E. Randolph Dr.
Mail Code 3802/SS
Chicago, IL 60601

An Equal Opportunity Employer M/F

NeXagen, Inc., a Boulder-based biotechnology company, is dedicated to drug development through the implementation of proprietary, novel repertoire chemistry. NeXagen scientists are in pursuit of oligonucleotide ligands for use as pharmaceutical agents for the treatment of several major diseases. In addition to their own in-house research programs, NeXagen scientists are involved in an interactive research program with many scientists at the University of Colorado, Boulder campus.

MOLECULAR BIOLOGIST

NeXagen is seeking a highly motivated-innovative Ph.D. in either Molecular Biology or Protein Biochemistry. The successful candidate should have postdoctoral experience. Demonstration of excellent ability in expression cloning of eukaryotic proteins in both bacterial and eukaryotic systems and protein purification experience is highly desirable. The successful candidate will lead a small team of scientists in the cloning, production and purification of therapeutic targets.

Respond to Dept. MBIO

CHEMIST

The Nucleotide Chemistry group is looking for a Ph.D. level synthetic organic chemist. The successful candidate will have strong knowledge and interest in nucleotide or oligonucleotide synthesis and be highly motivated to design and implement novel research programs in the area of nucleotide synthesis. Our group conducts chemical research in an interdisciplinary pharmaceutical setting.

Respond to Dept. CHEM

CELLULAR IMMUNOLOGIST

NeXagen is also seeking a Ph.D. level Cellular Immunologist with expertise on establishing cell and tissue assays to evaluate efficacy of nucleotide based therapeutics developed against specific molecular targets including cytokines, growth factors and other immunomodulators. The successful applicant should have demonstrated skills in these areas and be familiar with major aspects of vascular biology.

Respond to Dept. IMMU

Please submit a C.V., references and a brief description of research interests and skills. Submissions should be sent to:

NeXagen, Inc.
2860 Wilderness Place, Suite 200
Boulder, CO 80301
Equal Opportunity Employer

NEXAGEN

THE UNIVERSITY OF THE WEST INDIES Mona, Jamaica

RESEARCH FELLOW IN PLANT VIROLOGY

Department of Botany

The appointee will work on the viruses of root and tuber crops in Jamaica including yams and sweet potatoes. Applicants must have a PhD (candidates who have submitted their thesis and waiting to defend can also apply) in Botany/Agriculture or related areas with doctoral research on viruses of tropical tuber crops. Experience in virus purification and molecular techniques would be useful. The position is tenable for two years.

COMPETITIVE COMPENSATION PACKAGE

Detailed applications (three copies) giving full particulars of qualifications and experience, date of birth, nationality, marital status and the names and addresses of three referees should be sent to the Campus Registrar (Attention: Assistant Registrar, Appointments), University of the West Indies, Mona, Kingston 7, Jamaica. Final date for receipt of applications is **31 August 1993**.

In order to expedite the appointment procedure, applicants are asked to advise their referees to send confidential reports directly to the University without waiting to be contacted.

Postdoctoral Training In Laboratory Animal Medicine

The University of Illinois at Chicago, Biologic Resources Laboratory and Bristol-Myers Squibb Pharmaceutical Research Institute announce the availability of a jointly sponsored postdoctoral fellowship in laboratory animal medicine. The program includes a three year period of training in clinical, management, and research components centered at the University of Illinois at Chicago Biologic Resources Laboratory and Bristol-Myers Squibb Pharmaceutical Research Institute. The program is designed for graduate veterans interested in careers in the pharmaceutical industry.

Requirements: DVM or equivalent degree; eligibility for Illinois license; U.S. citizenship or permanent residency status. The postdoctoral training program requires three years to complete and includes clinical and managerial experience in a large full service animal care program, training in laboratory animal science and medicine, formal course work, special training and experience in research methodology, and teaching technical and graduate level courses. The program is designed to provide the fellows with the didactic and experiential training necessary to prepare them to pursue a career in laboratory animal medicine and obtain ACLAM certification. Annual stipends of \$18,600 to 32,300, depending upon experience. Weekend, holiday and irregular duty hours on rotation. Appointment is for one year renewable for a second and third year.

To apply, send a resume, academic transcripts, a description of your interest in laboratory animal medicine and your career goals, along with the names, addresses and telephone numbers of three persons who may be contacted as references. Contact **Dr. B.T. Bennett, Biologic Resources Laboratory, 1840 W. Taylor St., M/C 533, Chicago, IL 60612; phone 312-996-7040.**

The University of Illinois at Chicago and Bristol-Myers Squibb are affirmative action/equal opportunity employers.

POSITIONS OPEN

POSTDOCTORAL POSITION is available (U.S. citizens/permanent residents) to study molecular biology of ion transporters. The position is funded through an N.I.H. training program. Applicants should have a Ph.D. or equivalent with experience in molecular biology. Send curriculum vitae and three letters of recommendation to: **Dr. Walter F. Boron, Chairman, Department of Cellular and Molecular Physiology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510-8026.**

POSTDOCTORAL POSITION

Position available immediately to study cell adhesion mechanisms in cartilage and bone with emphasis on a novel cell adhesion protein. Applicants will be considered with a Ph.D. or M.D. and experience in the protein biochemistry and/or cell biology of ligand-receptor analysis. Mail or FAX curriculum vitae and names of three references to: **Dr. Richard Loeser, Department of Medicine, The Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157. FAX: 919-716-4204. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available to study the mechanisms that govern embryonic pattern formation in *Drosophila*. Applicants with experience in biochemistry, developmental biology, or genetics are particularly encouraged to apply. Prior experience with flies is advantageous, but not essential. Please send curriculum vitae and the names of three references to: **Dr. Robin P. Wharton, Section of Genetics, Duke University Medical Center, Box 3657, Durham, NC 27710. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION

Postdoctoral position beginning September 1, 1993, involving use of an efficient recombination-based assay to isolate genes on human chromosomes 19 and 21 and to determine time and tissue in which transcription occurs. In addition to sophisticated bacterial genetics, this work involves all standard molecular genetic approaches.

Excellent benefits and salary commensurate with experience. Please send letter of application including résumé and 3 letters of reference to: **Dr. David Kurnit, University of Michigan, MSRB Room 3520, Ann Arbor, MI 48109-0650. Telephone: (313) 747-4747; FAX: (313) 936-9353. Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS HARVARD MEDICAL SCHOOL

Available immediately for qualified Ph.D.'s to study relations between intracellular Ca^{2+} changes as revealed by use of the latest generation fluorescent dye indicators and muscle contraction in either single isolated muscle cells or small populations of myocytes. Support growth in a stimulating environment. Send curriculum vitae together with 3 letters of recommendation to: **Dr. Fred Julian, Department of Anesthesia Research Laboratories, Brigham and Women's Hospital, Boston, MA 02115. FAX: (617) 732-6927.**

POSTDOCTORAL POSITION UNIVERSITY OF BRITISH COLUMBIA

The Division of Pediatric Hematology/Oncology/Bone Marrow Transplantation at the University of British Columbia (UBC) has a two-year term **POSTDOCTORAL FELLOW** position available with a start date of September 1, 1993. Studies will focus on the role of antigen presentation in graft-versus-host disease secondary to minor histocompatibility differences using murine models. Candidates should have expertise in cellular immunology and molecular techniques. Salary is commensurate with qualifications and experience. *UBC welcomes all qualified applicants, especially women, aboriginal people, visible minorities and persons with disabilities. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.* Please submit curriculum vitae and the names of three references, by August 31, 1993, to: **Dr. Kirk R. Schultz, Department of Pediatrics, UBC, B.C.'s Children's Hospital, 4480 Oak Street, Vancouver, B.C., Canada V6H 3V4.**

SCIENCE recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for research on role of nuclear regulatory proteins (e.g. CREB, June 1993) in mediating regenerative responses of neurons to axon injury. Collaborative work on cell biology of growth cones also available. Background in cell and/or molecular biology preferred. Send curriculum vitae, statement of research experience and interests, and names of three references to: **Dr. Daniel J. Goldberg, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study transcriptional regulation of neuronal nicotinic acetylcholine receptors *in vivo*. Expertise in chimeric mouse technology is desired. Applicants should have a strong background in molecular biology and/or neurobiology. Ongoing projects include molecular analyses of nerve growth factor-induced transcriptional activation of receptor genes and activity-dependent receptor gene expression. Please submit curriculum vitae, a statement of research interests and names of at least three references to: **Paul D. Gardner, Institute of Biotechnology, University of Texas Health Science Center, 15355 Lambda Drive, San Antonio, TX 78245. The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.**

THE ROCKEFELLER UNIVERSITY NEW YORK. Structural Studies of Transcription Complexes. Applications are invited for **POSTDOCTORAL POSITIONS** in the laboratory of Dr. Seth Darst to investigate structure-function relationships underlying macromolecular assemblies involved in the process of transcription. Work in the laboratory involves biochemical, biophysical, and structural investigations of assemblies and sub-assemblies of proteins and nucleic acids isolated at defined stages of the transcription process. Structural studies include X-ray crystallographic analysis of macromolecules, and electron microscopy and image processing of larger assemblies. A strong background in protein biochemistry, X-ray crystallography, or electron microscopy and image processing is desired. The isolation and characterization of macromolecular assemblies is emphasized and candidates with no crystallographic training are encouraged to apply.

Send curriculum vitae and the names of 3 references to: **Dr. Seth A. Darst, The Rockefeller University, Box 224, 1230 York Avenue, New York, NY 10021; FAX: 212-327-7477.**

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY available immediately to study the mechanism of action of anticancer drugs using shuttle vectors. We have evidence for a novel DNA repair pathway for interstrand crosslinks derived from anticancer drugs that operates in both bacterial and human cells and has potential implications for the mechanism of action of certain anticancer drugs. Molecular biological, genetic and tissue culture techniques. Send curriculum vitae and reference letters to: **Dr. Edward L. Loechler, Biology Department, Boston University, 5 Cummings Street, Boston, MA 02215. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available to study the molecular basis of cholecystokinin/gastrin receptor function. References: *Nature*, volume 362, pp. 348-350, 1993; *JBC* volume 268, pp. 8164-8168, 1993. Background in molecular biology essential. Please send curriculum vitae and three letters of reference to: **Alan Kopin, M.D., Division of Gastroenterology, Department of Medicine, Tufts New England Medical Center, 750 Washington Street, Box 239, Boston, MA 02111.**

An Equal Opportunity Employer.

POSTDOCTORAL POSITION: membrane structure/function; lipid-protein interactions; effects of perturbants including drugs, alcohol, and environmental pollutants. Membrane physical biochemistry using calorimetry, fluorescence, NMR, and titration calorimetry. Ph.D. in biochemistry, biophysics, chemistry or related fields. Send résumé, publications list and names of references to: **Dr. Elizabeth S. Rowe, Ph.D., Veterans Affairs Medical Center, 4801 Linwood Boulevard, Kansas City, MO 64128. Telephone: 816-861-4700, extension 3541. Affiliated with the University of Kansas Medical School. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

CELLULAR ADHESION/EXOCYTOSIS

POSTDOCTORAL POSITION will be available on or about 1 October 1993 to study the control of sperm exocytosis by the egg's zona pellucida during fertilization. Our laboratory applies video image processing and electrophysiological approaches, as well as cell biological and biochemical techniques, to study adhesion-activated signal transduction. Background in one of these areas is advantageous, but motivated individuals with experience in related areas are also encouraged to apply. Send curriculum vitae and the names of three references to: **Dr. Harvey M. Florman, c/o Human Resources Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer, M/F/H.**

POSTDOCTORAL POSITIONS

Applications are invited for two postdoctoral positions to study the molecular biology and biochemistry of plant membrane proteins. One of the positions will be concerned with elucidation of the *in vivo* function of the vacuolar H^+ -pyrophosphatase by the application of antisense and ectopic overexpression approaches to *Arabidopsis* and *Nicotiana*. The other position will be concerned with the molecular and functional characterization of two cDNA clones, isolated from *Arabidopsis*, which encode ABC-type transport proteins. Applicants should have training in molecular biology and a strong interest in the functional or protein chemical analysis of membrane proteins. Please send curriculum vitae and three letters of reference to: **Dr. Philip A. Rea, Plant Science Institute, Department of Biology, University of Pennsylvania, Philadelphia, PA 19104-6018. FAX: 215-898-8780.**

BIOLOGICAL SEQUENCE COMPARISON

POSTDOCTORAL POSITION available immediately to develop more powerful methods for protein and DNA sequence comparison. Approaches include evaluation of sequence comparison methods, multiple alignment algorithms, parallel computation, evolutionary tree construction, and sequence/structure comparisons. Candidates with backgrounds in protein structural analyses, biological sequence comparison, and molecular evolution are encouraged to apply. Send curriculum vitae and the names of three references to: **William R. Pearson, Department of Biochemistry, Box 440 Jordan Hall, University of Virginia, Charlottesville, VA 22908. FAX: (804) 924-5069, Email: wrp@virginia.EDU. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION CROSS CANCER INSTITUTE UNIVERSITY OF ALBERTA

A position is available immediately to study the induction and repair of DNA strand breaks generated by ionizing radiation and other agents. Funding is through the National Cancer Institute of Canada. Candidate should possess a Ph.D. in Biochemistry or Chemistry and have experience with recombinant DNA techniques. Please send curriculum vitae and names, addresses and telephone numbers of three references to: **Dr. Michael Weinfeld, Radiobiology Program, Cross Cancer Institute, 11560 University Avenue, Edmonton, Alberta, Canada T6G 1Z2. In accordance with Canadian Immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada.**

THE JACOB BLAUSTEIN INTERNATIONAL CENTER FOR DESERT STUDIES, BLAUSTEIN POSTDOCTORAL FELLOWSHIP

A two-year fellowship, to be taken up on October 1, 1994, is available for basic or applied research in physical, life or social sciences in arid zones. Deadline for application is December 31, 1993. A decision will be announced by February 15, 1994. Please send curriculum vitae, letter describing research interests, and have three letters of reference forwarded to: **Prof. Joseph Gale, The Jacob Blaustein Institute for Desert Research, Ben Gurion University of the Negev, Sede Boker Campus, 84993, Israel; FAX: 972 (57) 555-058.**

Postdoctoral Opportunities In The Biomedical Sciences.

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

Mechanisms of Gene Regulation **Vera M. Nikodem, PhD**

The molecular mechanisms involved in hormonal and developmental control of gene expression are being investigated. The immediate focus is on the transacting factors of the steroid/thyroid hormone receptor gene superfamily and the evolutionary significance of this family of receptors. Future work will use homologous recombination to target genes of regulatory nuclear proteins. Applicants must have less than five years postdoctoral experience. Genetics and Biochemistry Branch (OE-36), NIDDK, Building 10, Room 8N317.

Molecular and Cellular Biology **Anton J. Jetten, PhD**

The transcriptional control of growth-regulatory and differentiation-specific genes in epidermal keratinocytes and embryonal carcinoma cells is being studied. Special attention is being focused on the mechanisms by which retinoids and nuclear retinoic acid receptors regulate gene expression. Applicants must have molecular biology experience and less than five years of postdoctoral training. Laboratory of Pulmonary Pathobiology (OE-36), NIEHS, P.O. Box 12233, Research Triangle Park, NC 27709.

Molecular Mechanisms of DNA Repair, **DNA Replication and Toxin Action** **Eric J. Ackerman, PhD**

The molecular biology of vertebrate DNA repair is being investigated with particular emphasis on the role of single-stranded to double-stranded replication. Repair of damaged DNA substrates is studied both in injected *Xenopus* oocytes and efficient extracts. Additional projects involve elucidating the molecular mechanisms by which toxins disrupt cellular protein synthesis. Applicants must have less than five years postdoctoral experience. Office of the Director (OE-36), Division of Intramural Research, NIDDK, Building 5, Room 411.

Radiopharmaceuticals Development **Ronald D. Neumann, MD**

Nucleic acid-based radiopharmaceuticals are being developed for both diagnostic and therapeutic applications. Experience in mammalian cell culture, DNA amplification, cloning techniques, oligonucleotide synthesis and derivatization, and radionuclide handling is required. Familiarity with antisense oligonucleotides and evolutionary methods is desirable. Nuclear Medicine Department (OE-36), Warren Grant Magnuson Clinical Center, Building 10, Room 1C496.

Regulation of Gene Expression **Marc Reitman, MD, PhD**

The regulation of genes within gene clusters is being studied in order to determine the mechanism by which chromatin is "opened" to produce an active cluster. Related problems being addressed include understanding the process involved in choosing particular genes for expression in an open cluster and identifying the DNA elements and

proteins involved. Background in molecular biology is desirable but not absolutely required. Diabetes Branch (OE-36), NIDDK, Building 10, Room 8N250.

Signal Transduction **Nicholas J.P. Ryba, D Phil**

Molecular biological approaches are used in combination with immunological and biochemical techniques to investigate sensory cells and proteins that function in the chemical senses. Signal transduction pathways in taste and smell are being studied with a focus on elucidating mechanisms used to distinguish between diverse chemical stimuli. Laboratory of Immunology (OE-36), NIDR, Building 10, Room 1A09.

Signal Transduction **William F. Simonds, MD**

The structure and function of G protein subunits is being investigated with emphasis on the $\beta\gamma$ complex. Molecular biological and biochemical techniques are used to study the assembly of $\beta\gamma$ subunits and their interactions with G protein α subunits, receptors, and effectors. Applicants should have less than five years postdoctoral experience. Molecular Pathophysiology Branch (OE-36), NIDDK, Building 10, Room 8C101.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference by Internet (cu.nih.gov) or via modem (1,301-402-2221 or 1,800-358-2221). The settings for modem access are "7,Even,1". When connected to NIH, type in "vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

The Postdoctoral Research Fellowship Opportunities catalog may be requested from the address below. An electronic version of the catalog may be accessed via the network-based (Internet) Gopher Information System. To access the NIH Gopher server, Gopher client software (available via anonymous ftp "boombox.micro.umn.edu") must be running on your computer and configured to point to "gopher.nih.gov", port "70". Select *Information for Researchers* to reveal the *NIH Office of Education* directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (e.g., MD, DO, DDS, or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



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Senior-Level MOLECULAR BIOLOGIST

NATIONAL INSTITUTES OF HEALTH. The Hepatitis Viruses Section, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases. Senior-level molecular biologist with extensive training in methodology of genetic engineering. Must have experience in application of RT-PCR technique for genome amplification of RNA-containing viruses present in very low titer in biological and clinical samples, sequencing of DNA, construction of expression vectors for *E. coli* and baculovirus, and employing recombinant proteins for immunological tests. Applicant should also have experience in research on hepatitis viruses and should be familiar with computer programs for analysis of nucleic acids and proteins. Experience in both basic and applied research, including experienced in patenting, is highly desirable. Applicant will be expected to apply basic research advances to product development and to interact with pharmaceutical companies through collaborative research and development agreements. Salary will be commensurate with experience.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to:

Robert H. Purcell, M.D.
NIH, Bldg. 7, Room 202
9000 Rockville Pike
Bethesda, MD 20892
FAX: (301) 402-0524



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Assistant Member In Molecular Pharmacology

A junior faculty position is available for an innovative scientist to develop a program in pharmacologic approaches to modulating growth and differentiation of malignant cells. Support for establishing this program will be provided. Applicants should have either Ph.D. or M.D. degrees, a strong training in molecular biology, and a major interest in signal transduction. Candidates should send curriculum vitae summary of research interests, and three names for references to: Dr. Peter J. Houghton, Department of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.



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Research Associates Cell Biology

Candidates should have a BS/MS in Cell Biology or a related discipline, with at least 1-2 years' laboratory experience in tissue culture, hybridoma generation, characterization of monoclonal antibodies and/or knowledge of adhesion or lymphocyte proliferation assays. **(Job Code OA-SC-JC-033)**

CELL BIOLOGISTS

The Department of Medical Cell Biology of the Nemours Research Programs is expanding with the hiring of two experienced cell biologists at Assistant or Associate Professor level. Candidates must have at least two years postdoctoral experience and must be able to demonstrate a capacity and an enthusiasm for independent research. One of the posts will be to develop a program of work in some aspect of intestinal cell biology, preferably using cultured cells. Also to collaborate in and support the existing research programs directed by three gastroenterology physician investigators. The second appointee will have interests in endocytosis and/or lysosomes function and will pursue independent and collaborative research in this field.

The Department of Medical Cell Biology is one of three research departments located at the Alfred I. duPont Institute, a rapidly growing multidisciplinary children's hospital that has close academic and clinical links with Jefferson Medical College, Philadelphia. The Department currently has a staff of 45 and is engaged in a range of research projects in which the techniques of molecular and cell biology are used to investigate problems related to child health and disease. Existing work relevant to these new posts is concerned with pinocytosis and lysosome function in embryonic nutrition, genetic defects and targeted drug delivery; and with gastrointestinal energy metabolism, transport, motility and inflammation.

Send a letter of interest, curriculum vitae, and salary history (required) to: Dr. J.B. Lloyd, Professor and Director, Department of Medical Cell Biology, Nemours Research Programs, P.O. Box 269, Wilmington, DE 19899. Applications will be accepted until the positions are filled.

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Columbia University College of Physicians and Surgeons Department of Biochemistry and Molecular Biophysics

The Department continues its search for outstanding new FACULTY MEMBERS. Both tenured and tenure-track positions are available.

Applications are invited from candidates with the Ph.D. degree or its equivalent and appropriate postdoctoral experience for positions in biochemistry and molecular biophysics. In the area of biochemistry we are seeking persons with research interests in developmental biology, neurobiology, signal transduction, and transcription. In molecular biophysics, the areas of particular interest are three-dimensional structural analysis, NMR of nucleic acids, protein folding, enzyme mechanisms, and protein-protein interactions.

Preference will be given to those people with strong records of research accomplishments and creativity. Interested candidates should submit a curriculum vitae, bibliography, reprints, summary of current and future research goals, as well as letters of recommendation from three references. The Department is especially interested in women and minority candidates. All applications should be addressed to: Chairman, Department of Biochemistry & Molecular Biophysics, Columbia University, Health Sciences, 630 West 168th Street, New York, NY 10032.

Columbia University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to join an NIH-funded project on amino acid and iron supply to the early mammalian embryo. Background in receptor-mediated endocytosis, lysosomes and/or transferrin biochemistry a plus. Send applications to: **Dr. J. B. Lloyd, Professor and Director, Department of Medical Cell Biology, Nemours Research Programs, P.O. Box 269, Wilmington, DE 19899. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for a candidate interested in studying tumors, hematopoiesis and the immune response in *Drosophila*. Experience in molecular biology or genetics required. Please send curriculum vitae and names of three references to: **Dr. Deborah A. Kimbrell, Department of Biology, University of Houston, Houston, TX 77204-5513. University of Houston is an Equal Opportunity/Affirmative Action Employer.**

**University of North Carolina
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Biochemistry and Biophysics Department
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Studies focus on structure and function of pure human UMP synthase, a bifunctional protein with 2 catalytic domains. Protein engineering methods will be used: to identify amino acids necessary for catalysis at each catalytic center, and for conformational effects; for rapid quench kinetic studies of the interacting enzyme domains; for studying crystal structures. **POSITION IS OPEN NOW.** Send curriculum vitae and names of three reference scientists to: **Mary Ellen Jones, Kenan Professor of Biochemistry, CB# 7260 306 FLOB UNC-CH Medical School, Chapel Hill, NC 27599-7260. UNC-CH is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOW

Position available to study the molecular genetics of insulin-dependent diabetes mellitus. The research will involve detailed analysis of human chromosome 6 in the HLA region which is involved in Type I diabetes, as well as analysis of other candidate genes in both unrelated diabetics and multiplex families. The candidate should have experience in molecular biology including polymerase chain reaction, Southern blot analysis, cloning, and sequencing. Send curriculum vitae, statement of research interests, and the names of three references to: **Charlotte Tule, Personnel Office, Coriell Institute for Medical Research, 401 Haddon Avenue, Camden, NJ 08103. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL SCIENTIFIC RESEARCH OPPORTUNITIES IN INDIA. Three- to twelve-month fellowships in India awarded to U.S. citizens in 1993-4. For information, contact: **Jeanine Marie Greene, Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037.**

POSTDOCTORAL or RESEARCH ASSOCIATE POSITIONS are available for studies of signal transduction by Ras-related and heterotrimeric GTP binding proteins. The first position involves ongoing studies on the regulation of phagocyte NADPH oxidase/other cellular systems by Rac proteins, including regulation of Rac function by associated GAP's, GDI's, etc., and their interactions with other signaling pathways. The candidate should have a knowledge of protein purification and molecular biology, (cloning, transfection, mutagenesis, etc.), as well as a genuine interest in the cell biology and biochemistry of signal transduction. The second position involves studies to apply novel approaches to the question of R-G-E coupling in white blood cells. A strong background in molecular biology and knowledge of receptor-G protein signaling pathways is desirable. The candidate should be self-motivated and able to work, to some degree, independently. Salaries commensurate with experience. Contact: **Dr. Gary M. Bokoch, IMM-14, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037. Telephone: (619) 554-8217, FAX: (619) 554-8218.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE, MOLECULAR BIOLOGY, Lens Gap Junction. A postdoctoral research position is available to work on cloning and expressing gap junctional protein from the lens. The successful candidate will be expected to take charge of all biochemical/molecular biological aspects of the project. He or she may participate in the electrophysiological studies to whatever extent desired. Salary is in the range of \$22,000 to \$30,000 per year. Those interested may call (516) 444-3041, or send curriculum vitae to: **Dr. Richard T. Mathias, Department of Physiology & Biophysics, Health Sciences Center, SUNY at Stony Brook, Stony Brook, NY 11794-8661.**

POSTDOCTORAL RESEARCH IN PLANT-BACTERIAL INTERACTIONS. One or two positions are available immediately to study plant genes involved in the hypersensitive response (HR). Studies will take advantage of putative *Arabidopsis* mutants and purified HR elicitors (*Science* 257, 85; *Cell* 73, 1255) to identify such genes. Candidates should have experience in molecular biology. Experience with plants or receptors is desirable. Please send curriculum vitae and three references to: **Dr. Sheng Yang He, Department of Plant Pathology, University of Kentucky, Lexington, KY 40546. Equal Opportunity Employer.**

RESEARCH ASSOCIATE Canadian Bacterial Diseases Network

Applications are sought for a Research Associate to join a 12-person research team studying the interactions between bacteria (*Pseudomonas aeruginosa* and *Mycobacterium tuberculosis*) and phagocytic cells. The successful candidate should have completed at least one postdoctoral fellowship and should be skilled in protein biochemistry. Experience in molecular and cellular biology are desirable but not essential. Duties will include supervision of technicians and postdoctoral fellows and limited administrative activities. This laboratory is a part of the Canadian Bacterial Diseases Network, and ample opportunities for collaborative research in bacterial pathogenesis are available. The term of the appointment is one year, renewable, with a start date of November 1, 1993. The salary is commensurate with qualifications and experience.

UBC welcomes all qualified applicants, especially women, aboriginal people, visible minorities and persons with disabilities. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Please submit curriculum vitae and names of three referees by September 30, 1993, to: **Dr. David P. Speert, Professor and Head, Infectious and Immunological Diseases, Department of Pediatrics, Room 304, Research Centre, 350 West 28th Avenue, Vancouver, B.C., Canada V5Z 4H4. Telephone: (604) 875-2438. FAX: (604) 875-2496.**

ESTABLISHED INVESTIGATOR Molecular and Cellular Biology of Breast Cancer

The laboratory for breast cancer research at Indiana University Medical Center, jointly sponsored by the Department of Surgery and the Hematology-Oncology Division of the Department of Medicine, is searching for an experienced Ph.D. or M.D./Ph.D. independent investigator interested in the cellular and molecular biology of breast cancer and breast cancer metastasis. The responsibilities of the position include the coordination of basic laboratory investigation of breast cancer within the context of a growing multidisciplinary comprehensive center at Indiana University. Close interaction with clinical investigators as well as the established basic science programs within the medical center will provide valuable support for this growing laboratory program. Start-up support, academic rank and competitive salary support commensurate with experience will be provided. Send curriculum vitae and description of current research program and interests to:

**George Sledge, M.D.
Associate Professor of Medicine
Indiana University Medical Center
975 West Walnut Street, IB445
Indianapolis, IN 46202-5121**

POSITIONS OPEN

NEW SEARCH

STAFF ASSOCIATE for Molecular Neurogenetics Laboratory, Columbia-Presbyterian Medical Center, investigating YAC's and cosmid that correspond to known genetic markers. Applicant must have, as minimum, Master's degree in related field with four years of professional work experience. In addition, expertise of BIOMEK robot, pulse field gel electrophoresis and polymerase chain reaction equipment required. Send curriculum vitae and three letters of reference to: **Stanley Fahn, M.D., Movement Disorder Division, Department of Neurology, 710 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE-NEUROPHYSIOLOGY/NEUROPHARMACOLOGY. The Neuroscience Research Program in the Loeb Research Institute at the Ottawa Civic Hospital and University of Ottawa is seeking a Research Associate holding a Ph.D. and/or M.D. degree to identify and study neurotransmitter and peptide receptors, ligand- and voltage-activated channels, ion channels and second messenger mechanisms in mammalian CNS neurons involved in hydromineral balance, cardiovascular and autonomic nervous function. Requirements are: minimum of 5 postdoctorate years of experience in an internationally recognized lab; experience with brain slice and explant preparations, tissue culture, dissociated cells and oocyte expression system; demonstrated ability and productivity (lead authorship on peer-reviewed publications) in *in vitro* intracellular current, voltage and patch clamp recordings and data analysis. Position requires teaching and lab supervision. Salary and benefits commensurate with experience. *In accordance with Canadian immigration regulations, this advertisement is directed first, but not solely, to Canadian citizens and permanent residents.*

Please forward curriculum vitae with names of 3 references and a statement of goals/interests/experience by September 30, 1993, to: **Dr. Leo Renaud, Director, Neurology/Neurosciences, Ottawa Civic Hospital and Loeb Research Institute, 1053 Carling Avenue, Ottawa, Ontario, CANADA K1Y 4E9.**

PLANT BIOTECHNOLOGY COMPANY

Applications are invited for: one **RESEARCH ASSOCIATE** (Ph.D. in Phytochemistry); one **RESEARCH ASSISTANT** (Master's degree in Plant Physiology, Molecular Biology or Biochemistry). Experience in plant tissue culture required.

Applicants should send a letter of application with detailed curriculum vitae and lists of publications, telephone numbers and addresses of 3 referees before August 31, 1993, to: **P.O. Box 51574, 911 Park Royal South, West Vancouver, B.C., CANADA, V7T 2X9. Equal Opportunity Employer.**



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The Atherosclerosis and Vascular Biology Department has a training opportunity in the area of in vivo models of vascular disease. This position will involve collaborative research to characterize the phenotypic and molecular consequences of the over expression of "candidate genes" in transgenic rodents. These studies will extend to cell-based investigations of the regulation of gene expression. A doctoral degree in the Life Sciences, with emphasis on physiology/metabolism and molecular biology is required. A working knowledge of lipoprotein metabolism and/or vascular biology, nucleic acid analysis (Northern, Southern, etc.) and biochemical techniques is highly desirable. Position # **PD-017**.

For consideration, please specify the number of the position you are responding to and forward your curriculum vitae and the names and addresses of three references to:

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A knowledge of French would be an advantage.

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For immediate confidential consideration, please mail resume by **AUGUST 20**, to:



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Filing Deadline:

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Fellows Notified:

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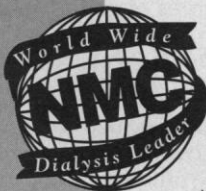
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Biochemist



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NMC offers a competitive salary and benefits package, including: medical, dental and life insurance, 401(k) plan, a company paid pension plan and a tuition reimbursement program. Qualified individuals are invited to FAX or mail a resume and salary history to: **National Medical Care, 22 Paris Avenue, Rockleigh, NJ 07647, Attn: Human Resources Department SC730. FAX: (201) 767-4273.** Principals only please. We are an Equal Opportunity Employer M/F/D/V.

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To support this growth, AWU is seeking creative individuals to fill two leadership positions. Applications are invited for:

Deputy Director, AWU NW

Responsibilities. Reports to the Executive Director of AWU and directs all phases of AWU NW operations including: the management of science education programs; staffing; support services; space; computer hardware and software; communications with program partners and advisory committees; development of new funding sources; negotiation of funding agreements; and long-range planning.

Qualifications. Bachelor's degree (advanced or professional degree preferred), with strong background in management. Excellent communication, interpersonal, organization skills are essential. Experience in the administration of sponsored programs is desirable.

Program Manager, AWU NW Postsecondary Programs

Responsibilities. Manage Hanford Site postsecondary science education programs; establish and cultivate AWU NW partnerships; evaluate and analyze programs; conceive, plan, and develop new programs; participate actively as a member of the AWU team.

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Salary commensurate with qualifications and experience; excellent benefits. To ensure consideration, applications should be received by August 31, 1993. Send nomination or letter of application, salary requirements, resume, and the names, addresses, and telephone numbers of three references to: Dr. Thomas G. Squires, Executive Director, Associated Western Universities, Inc., 4190 S. Highland Dr., Suite 211, Salt Lake City, UT 84124.

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Send curriculum vitae, three selected publications and three references to: **Professor Dr. Silvia Dorn, Institute of Plant Sciences, Applied Entomology, ETH Zentrum, Clausiusstrasse 21, CH-8092 Zürich.**

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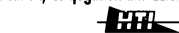
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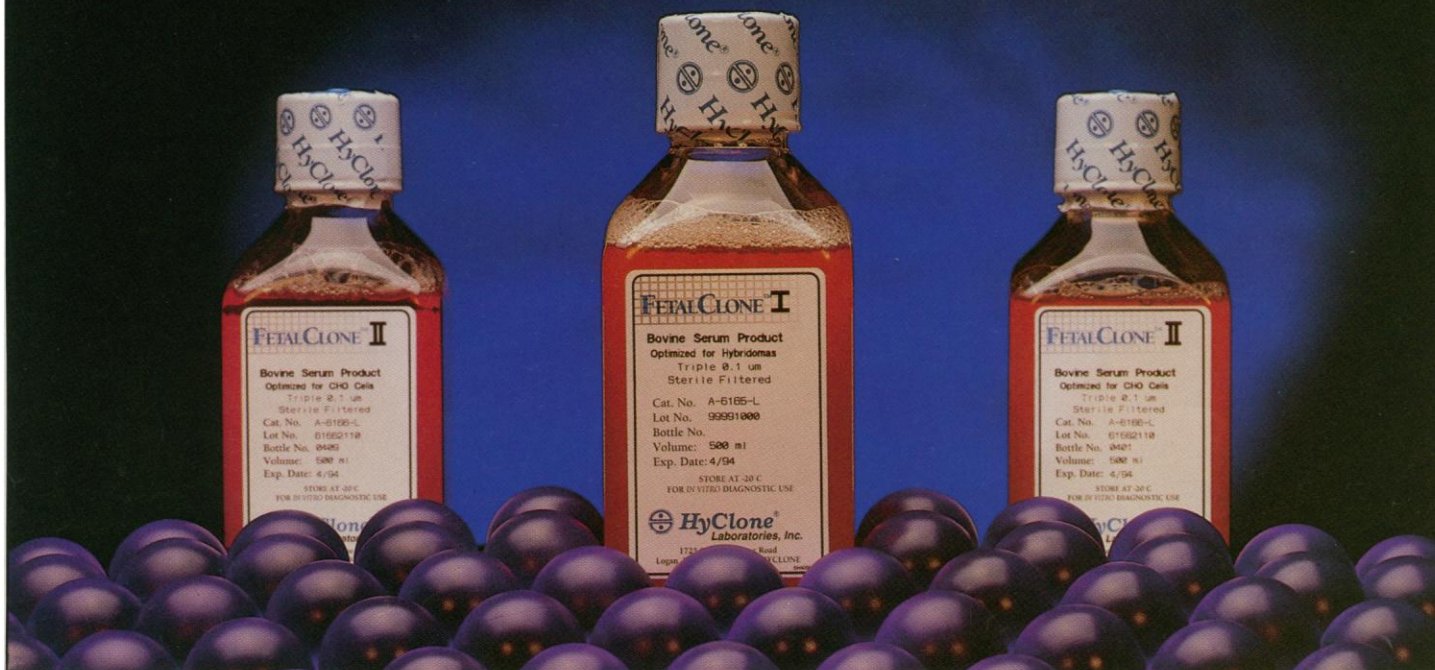
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		70%	\$10,400	\$ 5,600
		90%	\$ 8,800	\$ 7,200

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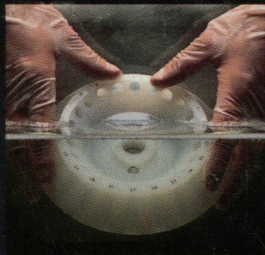
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