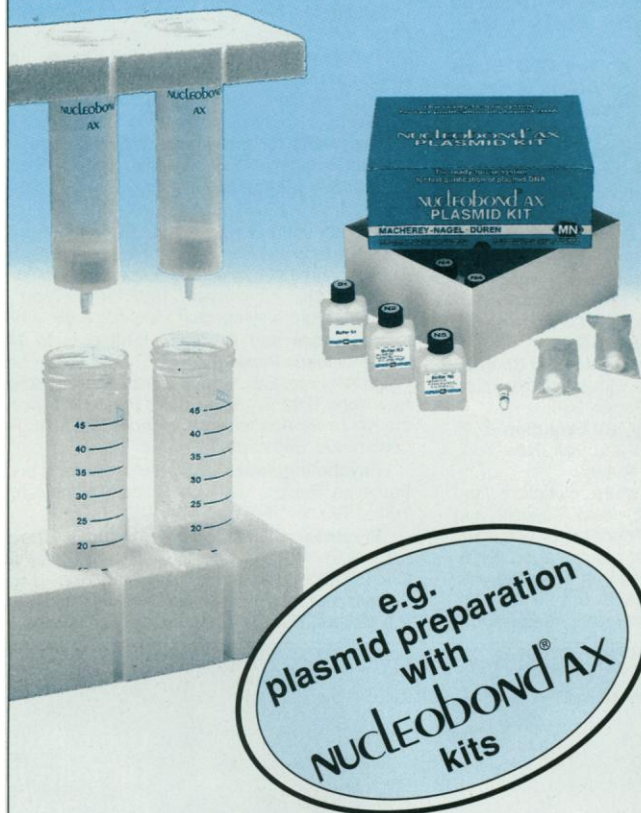


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1. *Cell* 56, 673-682 (1989). 2. *Nature* 340, 61-63 (1989). 3. *Cancer Research* 51, 958-963 (1991).  
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# H U M A N

# MONOCLONAL

CLONE	BINDS TO AMINO ACID RESIDUES NO.	NEUTRALIZING
<i>Anti-gp41 anti-gp160 monoclonal antibodies</i>		
IAM 41-3D6	env 604-617	No
IAM 41-4D4	env 590-600	No
IAM 41-4B3	env 580-604	No
IAM 41-25C2	(a)	No
IAM 41-2F5	env 662-667	Yes
IAM 41-3H12	env 693-856	No
IAM 41-5F3	(a)	No
<i>Anti-gp120 anti-gp160 monoclonal antibodies</i>		
IAM 120-2G12	(b)	Yes
IAM 120-3D12	(b)	Yes
IAM 120-1B1	(b) (blocks CD4 binding)	Yes
IAM 120-2G6	(b)	No
<i>Anti-p24 monoclonal antibodies</i>		
IAM 24-37G12	structural epitope	No
IAM 24-3A6	p 24 122-149	No
IAM 24-ID7	unknown	No

(a) Binding site at residues 532-542, 556-566, or 683-693 of gp160, or structural epitope.  
 (b) Binds to carbohydrate moieties anchored between residues 801-901, 916-954, 985-992, 328-414, or 434-475 of gp160.  
 All IAM anti-gp41 and anti-gp120 antibodies also bind to gp160.

# H I V - 1



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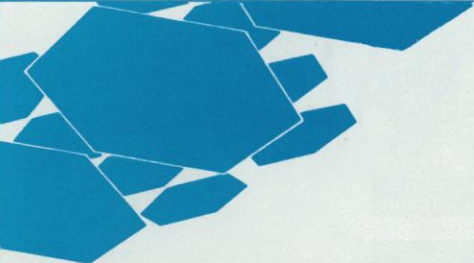
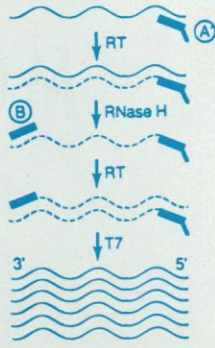
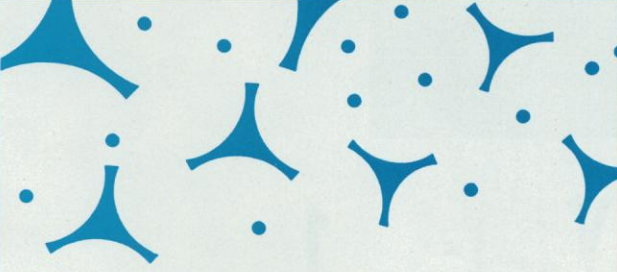
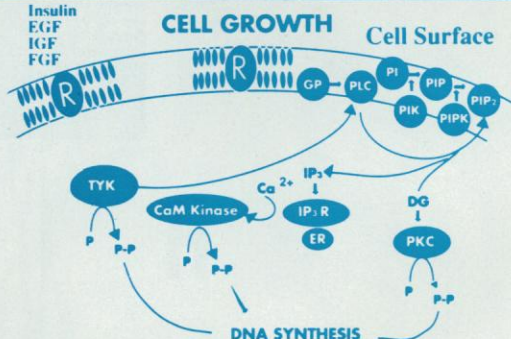
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 <p><b>*Immunology:</b></p> <p>Monoclonal Antibody (MAB) to Human Immunoglobulins, MAB to Mouse IgE &amp; Interferon and MAB to Rat Cell Surface Antigens &amp; Adhesion Molecules.</p>	 <p><b>*Cell Biology:</b></p> <p>Protein Kinase Inhibitors &amp; Activators, Calmodulin Antagonists, Monoclonal Antibodies to PKC Isozyme and Collagen (Human).</p>

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*"SEIKAGAKU" means "biochemistry"*

Circle No. 36 on Readers' Service Card

## Automated Genomic Plant DNA Purification

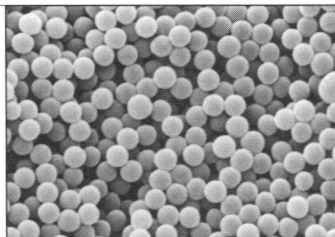
The AutoGen 540 system has a new protocol in which genomic DNA can be isolated from eight samples of plant tissue in 90 min. Starting with 20 to 50 mg of lyophilized tissue ground in liquid nitrogen, the system cycle can yield 10 to 40 µg of genomic DNA of sufficient purity, quality, and molecular weight for Southern (DNA) blot analysis or polymerase chain reaction application. The fully automated, programmable nucleic acid purification system is a compact benchtop unit that combines advanced microprocessor robotics, precise reagent delivery, and an integral centrifuge to prepare high-quality nucleic acid preparations without user intervention. **AutoGen Instruments. Circle 139.**

## Chemical Experiment Software

Outokumpu HSC Chemistry for Windows allows the chemist or engineer to carry out chemical experiments in the memory of the computer without expensive laboratory equipment and time-consuming test work. The software contains seven chemical reaction and equilibria calculation options: reaction equations, heat and material balances, equilibrium compositions, electrochemical cell equilibria, formula weights, phase stability diagrams, and Eh-pH diagrams. The seven calculation options automatically make use of a thermochemical database that includes 5600 chemical compounds. **Outokumpu Research. Circle 140.**

## Messenger RNA Kits

Oligotex-dT mRNA Kits provide a fast and simple way to purify polyA<sup>+</sup> mRNA. About 90% of the mRNA can be recovered in 20 min with a spin column protocol. The unique Oligotex-dT suspension contains uniformly sized, spherical latex particles that



provide maximal surface area for binding of polyA<sup>+</sup> mRNA in a small volume. No ethanol precipitation is required. Each kit contains RNase-free reagents and buffers, spin columns, and a handbook. **QIAGEN. Circle 141.**

## Transcription Kits for Capped RNA

The mMESSAGE mMACHINE in vitro transcription kits are for synthesis of large amounts of capped RNA. The kits yield from 15 to 25 µg of capped RNA per microgram of template DNA in a 20-µl reaction. The reaction requires only mixing DNA template with enzyme mix, nucleotide mix, reaction buffer, and water to a final volume of 20 µl and then incubating at 37°C for 1 hour. **Ambion. Circle 142.**

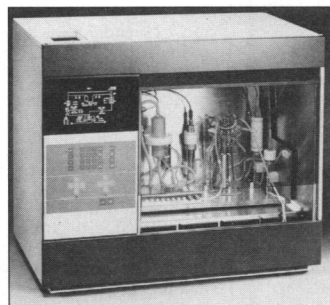
## Fluorescent Image Analysis System

The FMBIO FluorImager is the life science market's first filmless, nonradioactive image analysis system to use fluorescent labeling techniques, according to the manufacturer. Fluorescent labeling represents a key breakthrough in image analysis because radioactive compounds are unnecessary, images are of higher resolution, and results are achieved more quickly than with radioactive techniques. Among the FluorImager's molecular biology research applications are dideoxy sequencing, DNA hybridization, agarose gel electrophoresis, Southern (DNA) and Northern (RNA)

blotting, protein immunoblotting, and polymerase chain reaction quantitation. Reagent kits are available for DNA sequencing, protein immunoblotting, nuclear staining, and DNA labeling, with more kits planned. **Hitachi Software Engineering America. Circle 143.**

## Bioreactors

The fully automated OPTICELL systems (5200R, 5200E, and 5300E) are suitable for immobilization, growth, and long-term maintenance (continuous perfusion) of both suspension and anchorage-dependent cells, including vaccine applications. Based on a patented ceramic matrix, Opticore bioreactors vary in size for flexibility and scalability.



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hydrogen, and argon. Higher temperatures can be achieved at reduced pressures (1000°C at 450 bar and 1100°C at 130 bar). The self-contained benchtop unit plugs into a standard wall outlet. The HPS system was developed for research in high-temperature superconductors, but applications include solid-state chemistry, ionic conductors, super-strength oxide and nitride ceramics, and composites. **Morris Research. Circle 145.**

## Literature

BCCM is a brochure illustrating the broad spectrum of microbiological services of the Belgian Coordinated Collections of Microorganisms, including identification, molecular fingerprinting, safe deposit, patent deposit, and contract research (such as isolation and screening of new strains). **BCCM. Circle 146.**

*Chemistry Takes Shape with CAChe: Practical Solutions for the Bench Chemist* is a brochure on a chemical development workstation with major hardware and software enhancements to improve computing performance and ease the transition to computer-aided chemistry. **CAChe Scientific. Circle 147.**

*Complete E. coli Transformation System* describes the benefits of electroporation with the *Escherichia coli* pulser apparatus. **BioRad Labs. Circle 148.**

*1993-94 Product Catalog: Monoclonal Antibodies for Immunology Research* describes a line of products for flow cytometry, immunohistochemistry, cell surface labeling, and immunoprecipitation. **Ancell Corp. Circle 149.**

*The ConSep LC100 Liquid Chromatography System* describes a system for convective chromatography that can separate biomolecules in minutes instead of the hours required for more conventional methods. **Millipore. 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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### ASSISTANT PROFESSOR MOLECULAR BIOLOGY

The Department of Neurology of the Kennedy Krieger Research Institute is seeking applications for an assistant professor position. Applicants must have a Ph.D. and/or M.D. degree with postdoctoral experience in molecular biology. Experience in the design and utilization of expression vectors is strongly desired.

The successful candidate will join an established laboratory interested in mechanisms of neural endothelial differentiation, angiogenesis, microvascular cell interactions, and CNS microvascular cell transplantation. The Kennedy Krieger Research Institute is part of the Johns Hopkins Medical Campus and a concurrent faculty appointment at the Johns Hopkins University will be considered. Applicants should send curriculum vitae, three references, a statement of research interests and cover letter referring to position #43-181 to: **Human Resources, KENNEDY KRIEGER INSTITUTE, 707 North Broadway, Baltimore, MD 21205. Equal Opportunity Employer. Smoke-free Facility.** Applicants must respond in writing.

University of Waterloo—Applications are invited for a tenure-track ASSISTANT PROFESSORSHIP in Biochemistry starting September 1, 1993, or January 1, 1994. A Ph.D. in Chemistry/Biochemistry plus postdoctoral experience is necessary. Candidates must be able to establish an independent research program and participate in undergraduate and graduate teaching of biochemistry courses.

In accordance with Canadian Immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada. A complete application must include curriculum vitae, a list of publications, a summary of research interests, an outline of proposed research, and the names and addresses of at least three references. Applications should be sent to: **Professor F.R. McCourt, Chair, Department of Chemistry, University of Waterloo, Waterloo, Ontario, Canada, N2L 3G1.** The deadline for application is July 31, 1993. This appointment is subject to the availability of funds.

### POSITIONS IN BIOLOGICAL SCIENCES

The Department of Biological Sciences, State University of New York College of Optometry, seeks to fill two tenure-track positions at the ASSISTANT/ASSOCIATE PROFESSOR level. Candidates should either have a Ph.D. in pharmacology or a closely related field, or a Ph.D. and an active research program in some of the following areas: immunology, infectious diseases, molecular biology, ocular surface, pathology.

Responsibilities for the positions will include courses in general and ocular pharmacology, and participation in courses in general and ocular biology and microbiology.

Both new faculty members will be expected to develop independent research programs and participate in the training of O.D. and O.D./Ph.D. students, as well as residents. Candidates should submit curriculum vitae and statement of research interests and plans to: **Harry J. Wyatt, Ph.D., Chair, Search Committee, Department of Biological Sciences, State University of New York, State College of Optometry, 100 East 24th Street, New York, NY 10010. Telephone: 212/780-5163.** Salaries and benefits competitive. *An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH POSITION IN NEUROLOGICAL DISORDERS OF AGING.** The Ohio State University College of Medicine Neuroscience Program is seeking a Ph.D. or M.D. with specific research interests in neurological degenerative disorders of aging. Postdoctoral experience is required with preferences for those trained in either molecular genetics, neuropharmacology or biochemistry. This will be an appointment at the ASSISTANT or ASSOCIATE PROFESSOR level in the Department of Neurology with joint appointments to Pharmacology and/or Medical Biochemistry. Applicants should forward curriculum vitae, statement of research, teaching interests and experience, and the names of three references by August 1, 1993, to: **Jerry R. Mendell, M.D., Department of Neurology, Ohio State University, 1654 Upham Drive, Suite 463, Columbus, OH 43210.** The Ohio State University is an Affirmative Action/Equal Opportunity Employer. Qualified women, minorities, Vietnam-era and disabled veterans and the disabled are encouraged to apply.

## POSITIONS OPEN

### Albert Einstein College of Medicine Department of Molecular Pharmacology FACULTY POSITIONS

The Department of Molecular Pharmacology is expanding and will recruit new faculty members during the period of July 1993 to December 1994. Candidates are invited to apply for positions at all academic levels (ASSISTANT, ASSOCIATE and FULL PROFESSOR). All positions offer the opportunity for tenure. We are seeking individuals with a record of excellence in research who will apply skills in biochemistry, molecular biology, genetics and cell biology to solve problems relevant to molecular pharmacology. Essential requirements are an innovative research program that complements programs within the Department and the Medical School; and a commitment to the training of Fellows and graduate students. Research areas of interest to the Department include: mechanisms of hormone, oncogene, growth factor and neurotransmitter actions; regulation of gene expression and differentiation; structure, function and regulation of receptors, channels and transporters; signal transduction, second messengers and protein phosphorylation; post-translational modification and intracellular targeting. Substantial packages will be provided to start up and sustain the laboratories of successful candidates. Submit curriculum vitae, a statement of research interests, plans and names of three references to: **Ms. Anna Cioffi, Administrator, Department of Molecular Pharmacology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** An Equal Opportunity Employer.

### FACULTY POSITION CELLULAR PHYSIOLOGY

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### ASSISTANT PROFESSOR, PLANT VIROLOGY

A tenure-track, 12-month position is available at the rank of assistant professor with primary responsibility for research focusing on fundamental biological processes relevant to the control, epidemiology or pathogenesis of viruses that infect crops. Areas of research may include, but are not limited to, host resistance and specificity, viral replication and structure, virulence mechanisms, and virus/vector relationships. Teaching responsibilities include introductory graduate plant virology and participation in other courses. A Ph.D. degree is required; teaching and postdoctoral research experience and willingness to participate in interdisciplinary studies are preferred. Applicants should submit curriculum vitae, statement of research and teaching interests, reprints of representative publications, and three letters of reference (sent directly) to: **Chairperson, Plant Virology Search Committee, Department of Botany and Plant Pathology, Oregon State University, Cordley Hall 2082, Corvallis, OR 97331-2902.** Closing date: September 1, 1993. Position available: January 1, 1994. *Oregon State University is an Affirmative Action/Equal Opportunity Employer and has a policy of being responsive to the needs of dual-career couples.*

**RESEARCH ASSISTANT/ASSOCIATE PROFESSOR.** Cognitive Neuropsychologist for Maryland Psychiatric Research Center Outpatient Program, University of Maryland School of Medicine. Ph.D. Required. Previous research experience in clinical neuroscience and schizophrenia required. This position will be responsible for clinical care, administration and neuroscience research in an outpatient research unit. Send curriculum vitae to: **Robert W. Buchanan, M.D., Maryland Psychiatric Research Center, P.O. Box 21247, Baltimore, MD 21228.** Affirmative Action/Equal Opportunity Employer.

**FACULTY POSITION  
JOHNS HOPKINS  
ONCOLOGY CENTER**

Molecular and cellular biology of breast cancer—faculty position. The Johns Hopkins Oncology Center invites applications at the Associate Professor or Professor level for faculty with research focus on the molecular and/or cellular biology of breast cancer. The Oncology Center is an NCI-designated Comprehensive Cancer Center with interdisciplinary research programs in breast cancer and other solid tumors as well as hematologic malignancies. The range of research programs include molecular genetics, tumor biology, molecular biology, pharmacology and experimental therapeutics, transplantation biology and immunology, and experimental hematopoiesis. A new \$120 million cancer center building is planned which will include expanded facilities for interdisciplinary research programs.

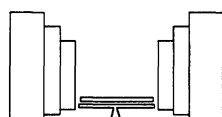
Applicants should have an M.D. and/or Ph.D. with a major interest in translational research and interaction with a multidisciplinary breast cancer research team including clinicians, pathologists, and basic scientists.

Applicants should submit curriculum vitae and complete bibliography to:

**Martin D. Abeloff, M.D.  
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Experience with database programming and data structure using Macintosh and Unix platforms, as well as familiarity with biological aspects of physical mapping and sequencing is required. Experience with programming and algorithm development for DNA and protein sequence analysis would also be helpful. Salary and benefits are competitive and the research environment is unsurpassed. Qualified candidates should send a C.V. and three references to:

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You will participate in studies of recombinant cytokine ligand-receptor interaction, including preparation of the complex for structure elucidation. In addition, you will evaluate compounds that are potential agonists or antagonists of cytokine activities; provide leadership in the design of experiments for signal transduction studies; and attempt to identify enzymes or transcription factors that are useful as targets for drug screening. A PhD in Biochemistry with 1-4 years of postdoctoral experience is required. Please respond with resume and salary requirements to: Mr. George Czuba, Human Resources, Dept DD93-08, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033.

**ASSISTANT SCIENTIST  
Biochemical Research**

We are seeking an Assistant Scientist who has a demonstrated interest in automated equipment, computers and analytical methods. You will participate in the development and running of automated, robotic biochemical assays to screen natural products and synthetic compounds for novel pharmaceutical activities. Qualifications include a BS in Biochemistry with 2-4 years (or a Master's with 0-2 years) of experience; a background with enzymes, receptors, radioisotopes and ELISA methodology would be useful. Please respond with

resume and salary requirements to:

Mr. George Czuba, Human Resources, Dept DD93-05, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033.

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As part of our growing Molecular Biology Development Group, you will become involved in the area of procaryotic heterologous gene expression. Responsibilities will involve the design and construction of novel plasmids for high level gene expression of heterologous proteins. You will participate in a dynamic, interdisciplinary team of scientists from our Molecular Biology, Bioengineering, Bioisolation and Bioassay Departments to design and develop cytoplasmic and secretory systems for the expression of eukaryotic proteins.

To qualify for this rewarding opportunity, you must have a BS or MS in a relevant scientific discipline and a maximum of four years of related industrial and/or academic experience. A successful track record in manipulating microbial cultures using recombinant techniques is desirable. Please respond with resume and salary requirements to: Department PML/DD93-11, Schering-Plough Research Institute, 1011 Morris Avenue, Union, New Jersey 07083.

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**POSTDOCTORAL POSITION (NIH)  
AIDS RESEARCH**

*HIV Env/CD4 Interactions and Mechanisms  
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**Projects:** 1) Structure/function analyses of CD4/HIV env glycoprotein interactions and role in fusion with target cell; [PNAS (1991) 88, 8082]; J. Virol. (1993) 67, 913]; 2) Accessory components of CD4+cell involved in fusion (species-specific and cell type-specific tropisms) [Virology (1993) 193, 483]; CD4-based AIDS therapeutics; genetically engineered chimeric CD4-toxin which selectively kills HIV-infected cells [PNAS (1990) 87, 8889; virology (1993) 192, 375].

Approaches include design and expression of recombinant proteins (extensive use of vaccinia virus vectors); functional analyses using molecular genetic, biochemical, cell biological and biophysical methods. Successful applicant will take advantage of the diversified expertises and resources in the Laboratory of Viral Diseases and elsewhere on the NIH campus. Salary will be commensurate with experience.

Position available immediately; later starting dates considered. Experience in molecular biology and/or protein and membrane biochemistry helpful but not required. Send CV and name of 3 references to:

**Edward A. Berger, Ph.D.**  
Laboratory of Viral Diseases, NIAID  
National Institutes of Health  
9000 Rockville Pike, Bg. 4, Rm. 229  
Bethesda, MD 20892

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## PHARMACOLOGIST

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We seek a pharmacologist to perform ligand binding screening assays to characterize potential bradykinin antagonists. The successful candidate will also characterize native and cloned bradykinin receptors in binding and signal transduction assays. BS/MS with 2-5 years of experience in *in vitro* pharmacological/biochemical assays. The preferred candidate will have knowledge of cell culture techniques and receptor-base assays such as ligand binding and signal transduction.

We offer competitive compensation, comprehensive flexible benefits, a unique investment plan, and the opportunity to join a team of scientists from a broad range of disciplines in an industrial pharmaceutical research environment.

Interested candidates should submit resume to:

**Melanie M. Lewis, ZENECA Pharmaceuticals Group,**  
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## University of Otago

Te Whare Wananga o Otago

New Zealand

### POSTDOCTORAL FELLOWSHIP IN IMMUNOLOGY (CELLULAR IMMUNOLOGY)

Applications are invited for a Postdoctoral Fellowship in Cellular Immunology at the Deer Research Laboratory (DRL), University of Otago. The deer research laboratory has an international reputation and collaborative projects worldwide in the field of ruminant tuberculosis (*M. bovis*) research. The laboratory has developed the deer as a natural large animal model of tuberculosis.

The DRL is situated with the Department of Microbiology which has a strong teaching programme in basic immunology with major research programmes involving immunological mechanisms in mycobacterial disease, vaccine development and the effect of stress on the immune system. Applicants should have a PhD and have good practical skills in cell culture, cytokine assays, monoclonal antibody production and FACS analysis.

The position is for one year in the first instance with the option of continued funding for three years.

Further information is available from Associate Professor J Frank T Griffin or Dr G S Buchan, Department of Microbiology, University of Otago, PO Box 56, Dunedin, New Zealand, telephone (64) (3) 479-7710, fax (64) (3) 4772-160.

Applications should quote reference number A93/39 close with the Registrar, University of Otago, PO Box 56, Dunedin, New Zealand (Fax (03) 474-1607) on 31 August 1993.

*Equal opportunity in employment is University policy.*

## Technical Support, Sales

**Biometra, Inc.**, a subsidiary of **Whatman**, manufactures innovative image analysis software, hybridization ovens, thermocyclers, electrochemical detectors, a growing line of biologicals and more for Molecular Biology research labs. Due to our rapid growth, the following positions are available:

### Technical Support

In-house support for our client base. Proficiency in PC operating systems and software is necessary. Background in Molecular Biology a must.

### Sales

Variety of territories including MD/VA, NJ/NY/PA, MA and northern CA. Candidates must have a proven record of success in sales of Molecular Biology products. Degree in Molecular Biology a plus.

Please address all inquiries to: Positions, **Biometra, Inc.**, 550 N. Reo St. #213, Tampa, FL 33609.

**Biometra-innovative products for molecular biology.**

## NATIONAL INSTITUTES OF HEALTH

### MOLECULAR BIOLOGIST, CELL BIOLOGIST AND RETROVIROLOGIST IN HIV RESEARCH

The Laboratory of Tumor Cell Biology of the Division of Cancer Etiology, National Cancer Institute is accepting applications for a permanent position for a medical doctor with extensive research experience. The position will be at the GS-13 level with a salary range of \$46,210 - \$60,070.

**The successful candidate will be expected to:**

1. Conduct original research into the area of HIV-1 neutralizing antibodies at the molecular level. This includes the development and use of immune escape mutants for HIV-1 to define neutralizing epitopes and the development of recombinant antibody libraries for the expression of neutralizing antibodies in bacteria.
2. Serve as Principal Investigator for studies on the molecular aspects of antibody neutralization of HIV-1.
3. Provide expert consultation to the Research Program of the laboratory in matters involving the study of the humoral immune response to HIV-1 and the effects of genetic variability on antibody neutralization.

**Candidates with the following qualifications will be given preference:**

1. Ph.D. with background in molecular biology and human retrovirology.
2. Post-doctoral research experience in molecular virology, particularly with HIV-1 molecular and cellular biology.
3. Strong interest with experience in the development of a research program which utilizes techniques of molecular biology and retrovirology, and molecular immunology to impact the area of the humoral response to HIV-1, with particular emphasis on neutralizing antibodies and viral genetic variation.
4. Extensive experience in site directed mutagenesis.
5. Broad knowledge of the principals of virus entry and neutralization.
6. Familiarity with repertoire cloning, expression, and characterization of human immunoglobulin libraries.
7. Ability to effectively communicate in English both orally and in writing.
8. Relevant publications in top scientific journals.

Applicants must be found to be eligible on a Civil Service Register. **If interested, please send a C.V. by June 18, 1993 to:**

**Ms. Patricia Stephenson, National Institutes of Health, Bldg. 37, Rm. 1A07, 9000 Rockville Pike, Bethesda, MD 20892**

U.S Citizenship is Required • NIH is an Equal Opportunity Employer

## SENIOR RESEARCH SCIENTIST

*If your career belongs on the leading edge of scientific research, you belong at Sandoz.*

**A**t Sandoz Pharmaceuticals, research is the tool by which we gain the knowledge needed to improve the lives of countless thousands across the country and around the world. That's why we've committed substantial resources to expanding our Research Institute and its state-of-the-art technologies.

If your career belongs on the leading edge of scientific research, you belong at Sandoz.

The Atherosclerosis and Vascular Biology Research group at Sandoz Research Institute is seeking a Senior Research Scientist with expertise in vascular physiology and pharmacology related to vascular diseases including thrombosis and atherosclerosis. The successful candidate should have a Ph.D plus more than 5 years of experience in managing independent research programs in areas of vascular research or disease. The candidate will join a growing interdisciplinary team of vascular biologists, molecular biologists, animal modelers and medicinal chemists with a primary goal of exploring

and developing new opportunities for future therapeutic intervention in vascular diseases.

Being part of the research team at Sandoz has many advantages. Our salaries and benefits programs are designed to attract top candidates and provide them with the resources to produce their best. Comprehensive health, dental, and savings plans as well as fitness and athletic facilities are all provided at our attractive location in northwest New Jersey, which also allows for outstanding academic, cultural and outdoor pursuits. For consideration, please forward your curriculum vitae, a statement of research interests and the names and addresses of three references to position **#2594MS**.

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## POSITIONS OPEN

### VICTORIA UNIVERSITY OF WELLINGTON CHAIR OF PLANT SCIENCE (Readvertisement)

Applications are invited for the above post in the School of Biological Sciences, available from 1 February 1994. The School teaches a wide range of courses including botany and related biological sciences. Relevant research interests include ecology and conservation, marine biology, plant taxonomy and physiology, and applied aspects of biochemistry and molecular biology.

Candidates should have an established reputation in some field of Plant Science. Applications will be welcome from those with interests in any area of the subject, but particularly from those whose research interests and experience relate to ecophysiology or molecular systematics. Applicants should have an interest, or be capable of developing an interest, in the New Zealand biota. The Professor will take a leadership role in research and teaching, and will share some administrative responsibilities within the School.

The salary range for Professors is currently NZ\$80,080 to NZ\$99,840 per annum. Further information, conditions of appointment and method of application are available from: **Appointments Administrator, VUW, P.O. Box 600, Wellington, New Zealand (FAX: 64 4 495 5238; Email: munroa@matai.vuw.ac.nz)**, with whom applications close on 19 July 1993.

*The University is an Equal Opportunity Employer.*

### MANAGER OF A PROTEIN SEQUENCING AND CHEMISTRY FACILITY

The Beckman Institute and Division of Biology at the California Institute of Technology seek an individual to head a Protein Sequencing, Chemistry, and Purification Facility. The purpose of the Facility is to provide expertise, instrumentation and services to scientists at Caltech involved in the purification and sequencing of proteins. Applicants should have at least 3 years of postdoctoral experience and should have special expertise in all aspects of protein sequencing including sample preparation, purification of peptides, sequencing, data interpretation, and supervision of state-of-the-art instrumentation. Additional special expertise in mass spectrometry of biological macromolecules and/or protein expression and/or purification from large scale bioreactors is desirable. The position will involve both the management of a service facility and an opportunity to participate in collaborative research projects with members of the Caltech Biology and Chemistry faculties. Interested applicants should submit curriculum vitae and request that 3 letters of recommendation be sent to: **Michael Miranda, Division of Biology 156-29, California Institute of Technology, Pasadena, CA 91125. Caltech is an Equal Opportunity Employer.**

### UNIVERSITY OF TORONTO RESEARCH CHAIR IN NUTRITIONAL TOXICOLOGY

Applications are invited for a Research Chair in Nutritional Toxicology.

The Chair-holder will be expected to develop a research program utilizing cellular, molecular, or genetic approaches to examine fundamental mechanisms of biological responses relevant to the role of food in chronic disease. The position offers a unique opportunity to collaborate with outstanding medical scientists and with the food industry to apply these advances to the enhancement of population health. Applicants should have some knowledge of food toxicology and food and drug regulations.

Funding for this tenure-stream position includes salary at the Associate Professor or Professor rank, and guaranteed net research funding for five years of \$100,000 per year from the Natural Sciences and Engineering Research Council of Canada.

Applications (including curriculum vitae) should be sent to: **Dr. Heather Maclean, Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, Toronto, Ontario, M5S 1A8. Telephone: 416-978-2422, FAX: 416-978-5882.**

Application Deadline: October 1, 1993.

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

## POSITIONS OPEN

### ASSOCIATE DIRECTOR OF ANESTHESIA RESEARCH

The Department of Anesthesia at Rush Medical College invites applications for the position of Associate Director of Anesthesia Research. Experience required in large and small animal surgery; computerized data analysis; initiation, supervision and conducting ongoing research. Demonstrated project design and writing skills required. Candidates should possess an advanced degree in the biologic sciences with prior medical research experience. Salary commensurate with qualifications and experience. Send curriculum vitae to:

**Kenneth J. Tuman, M.D.**  
Vice Chairman  
Department of Anesthesia  
Rush-Presbyterian-St. Luke's Medical Center  
1653 West Congress Parkway  
Chicago, IL 60612  
Telephone: (312) 942-3135 or FAX: (312) 942-8858

### FACULTY POSITION Cancer Biology Program Public Health Sciences Division Fred Hutchinson Cancer Research Center

Laboratory-based independent scientists ready to apply skills in molecular biology, biochemistry or genetics to research in environmental carcinogenesis are invited to apply. Appointment can be at junior- or senior-member level.

Letters of application together with curriculum vitae, a summary of research objectives and the names and addresses of three referees should be sent by August 15, 1993, to: **Dr. James K. McDougall, Chairman, Search Committee, Cancer Biology Program, Public Health Sciences Division, CI-015, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104.**

*Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in mammalian gene expression to study a new family of tissue-specific transcription factors sharing a DNA binding domain of the type found in hepatocyte nuclear factor 3 and in *Drosophila* forkhead proteins [see *Proc. Natl. Acad. Sci.* 90, 3948 (1993)]. Applicants must have a Ph.D., and experience in recombinant DNA methods is desirable. Please send curriculum vitae and names and telephone numbers of three references to: **Dr. Robert Costa, Department of Biochemistry (M/C 536), University of Illinois College of Medicine, 1819 West Polk Street, Chicago, IL 60612. UIC is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** in cell and developmental biology available immediately for a recent Ph.D. To study phenotypic plasticity of pancreatic exocrine cells and their lineage relationships (*Eur. J. Cell Biol* 51: 64 (1990)). Techniques include generation of new monoclonal antibodies, immunohistochemistry, primary cell culture. Please submit curriculum vitae, statement of interest, and three letters of reference to: **Robert C. De Lisle, Ph.D., Department of Anatomy & Cell Biology, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160.**

**POSTDOCTORAL POSITION** available immediately for two years to study synaptic transmission in enteric nerves. Position will use tissue culture methods, conventional and patch clamp electrophysiological methods to study synaptic mechanisms of neuronal excitation and inhibition. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. James J. Galligan, Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI 48824. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available summer/fall 1993 to conduct multidisciplinary research on mechanisms of lymphocyte-mediated cell killing and death. Experience in molecular biology and/or protein biochemistry is required. Please send curriculum vitae and three letters of recommendation to: **Dr. Chau-Ching Liu, Laboratory of Molecular Immunology and Cell Biology, The Rockefeller University, 1230 York Avenue, New York, NY 10021.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION** is available August 1, 1993, to study the cellular and molecular mechanisms of vascular disease resulting from diabetic hyperglycemia. Experience in endothelial cell biology, extracellular matrix and/or intravital microscopy is desirable. Please send curriculum vitae and the names of three references to: **Dr. Stuart K. Williams, Section of Surgical Research, University of Arizona Health Sciences Center, Tucson, AZ 85724. The University of Arizona is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION in CRYSTALLOGRAPHY** is available immediately. Projects include structural studies on DNA-binding proteins and enzymes involved in purine biosynthesis. Experience in protein crystallography preferred, but candidates with a Ph.D. in Biochemistry or Chemistry and an interest in structure are encouraged to apply. Send curriculum vitae and three letters of reference to: **Dr. Richard G. Brennan, Department of Biochemistry & Molecular Biology, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201-3098. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available to isolate and characterize potential drug targets and genes from *Pneumocystis carinii* and other fungal pathogens. Applicant should have demonstrable research expertise in protein chemistry, molecular biology, enzymology, and microbiology. Interest in human microbial pathogens is strongly preferred. Send curriculum vitae and letters of reference by 15 August 1993 to: **Jeffrey C. Edman, M.D., Department of Laboratory Medicine, Box 0626, University of California, San Francisco, CA 94143-0626. UCSF is an Equal Opportunity Employer.**

**CELL BIOLOGY/PHYSIOLOGY OF THE MALE REPRODUCTIVE TRACT:** Applications are invited for postdoctoral positions addressing (1) the regulation of the epididymal epithelium and (2) the cellular mechanisms of testicular dysfunction. These positions are supported by N.I.H. training grants, require U.S. citizenship/permanent residency, and are available for M.D. or Ph.D. applicants. Individuals with backgrounds in reproductive biology, cell biology, physiology/endocrinology would be strongest applicants, but others may be appropriate as well. *The University of Virginia is an Affirmative Action/Equal Opportunity Employer.* Submit curriculum vitae to: **Terry T. Turner, Ph.D., Department of Urology, Box 422, University of Virginia School of Medicine, Charlottesville, VA 22908.**

### POSTDOCTORAL POSITION ONTARIO CANCER INSTITUTE UNIVERSITY OF TORONTO

A postdoctoral position is available in the areas of peptide and protein design with emphasis on the development of cellular and intracellular targeting agents. Candidates must possess a Ph.D. or M.D. degree with training and experience in cell biology.

Send your curriculum vitae and a letter indicating your research interests to: **Dr. Jean Gariépy, Ontario Cancer Institute, Princess Margaret Hospital, 500 Sherbourne Street, Toronto, Ontario, Canada M4X 1K9.**

**POSTDOCTORAL POSITION** available immediately to study the molecular genetics of ovarian tumors. Research will involve loss of heterozygosity studies and development of new techniques to study genetic alterations during tumor development. Experience in molecular biology is desired. Submit curriculum vitae and three references to: **Dr. Maura Pieretti, Department of Pathology, University of Kentucky Medical Center, 800 Rose Street, Lexington, KY 40503. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Available immediately to study the biochemical and molecular aspects of peptide hormone action and structure-function of membrane receptors. Strong background in one or more of the following areas: protein chemistry, molecular cloning and/or gene expression, is highly desirable. Send curriculum vitae and three references to: **Dr. K. N. Pandey, Department of Biochemistry and Molecular Biology, Medical College of Georgia School of Medicine, Augusta, GA 30912-2100. Telephone: (706) 721-7651. MCG is an Equal Opportunity/Affirmative Action Employer.**

# NRC - CNRC

*NRC - Canada's top R&D organization - helps its industry partners become stronger global competitors. Currently, NRC's Plant Biotechnology Institute is looking for those rare people who can help further our record of excellence.*

## **Research Officer (Saskatoon, Saskatchewan)**

### **YOUR CHALLENGE**

The major duties of the successful candidate within the Seed Oil Modification Group include planning, managing, performing and reporting of research within the context of an integrated group effort. Participation in project planning and the promotion of interactions with external partners is expected. Duties also include supervision and performance evaluation of laboratory personnel.

### **YOUR CREDENTIALS**

Ph.D. from a recognized university with emphasis on plant biochemistry and molecular biology. Experience in isolation and characterization of plant genes, or in regulation of their expression. Experience in the enzymology, molecular biology or genetics of lipid biosynthesis will be an advantage. In-depth understanding of molecular biology, biochemistry and genetics in relation to crop improvement, and a strong record of publication and innovation are essential. Excellent verbal and written skills, in English, are essential. A security screening will be required.

**SALARY RANGE:** Commensurate with qualifications.

To explore this opportunity, send your résumé by 19 July 1993, indicating the reference number PB-93-01.SCI, to the Recruitment and Staffing Section, National Research Council of Canada, Ottawa, Ontario K1A 0R6.

*The NRC is an equal opportunity employer.*

*Vous pouvez obtenir ces renseignements en français.*



National Research  
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Canada

# Research Molecular Biologists

Pfizer, a U.S. based multinational pharmaceutical company, has earned its reputation as a leader in the industry through its continuing commitment to keeping its pharmaceutical research at the forefront of biomedical science and therapeutic innovation. Consider these exciting research opportunities in the Molecular Genetics and Protein Chemistry Department located at our Central Research Laboratories in Groton, Connecticut.

## **Cardiovascular Molecular Biology**

The Cardiovascular Discovery Group is pursuing the role of growth factors and proto-oncogenes in cardiac hypertrophy and congestive heart failure. We are seeking candidates with a PhD in Molecular Biology and at least 2 years postdoctoral experience in these areas.

## **Atherosclerosis Gene Transcription**

The Molecular Biology Group has considerable interest in the regulation of gene transcription. This position requires a PhD in Molecular Biology and at least 2 years postdoctoral work in a field such as atherosclerosis or lipid research.

In addition to a stimulating research environment, we offer a competitive compensation and benefits package, including generous relocation assistance to this southeastern Connecticut shoreline community. Qualified applicants may send a resume, description of research experience, and names of three references, indicating position desired, to: **Mr. Kym Goddu, Personnel Associate, 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.

# PROTEIN BIOCHEMIST

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, has an opportunity available for an innovative protein biochemist who specializes in the microisolation, identification and characterization of novel proteins of therapeutic/diagnostic interest.

Employing state-of-the-art protein purification and analytical techniques, you will develop new tools and methodologies for novel protein microisolation and analysis. You will have strong interface with protein structure and microanalytical groups and will collaborate with interdisciplinary research teams to define and characterize the biological and immunological activity of proteins of interest. Knowledge of photoaffinity labelling, chemical modification and cross-linking of proteins is highly desirable.

The qualified candidate will have a Ph.D. in biochemistry or biological chemistry, a minimum of two years' academic or industrial experience in protein chemistry/enzymology and documented experience with "de novo" protein purification. A background in state-of-the-art protein separation and chromatographic methods including preparative electrophoresis, FPLC and HPLC is necessary and a familiarity with microisolation techniques (such as SMART system), cellular fractionation and immunochemical methods is preferred. Demonstrated scientific achievement by publication in recognized scientific journals is required.

Located in our state-of-the-art research facility in suburban Philadelphia, near Valley Forge, PA, SmithKline Beecham offers competitive compensation and comprehensive benefits package. Interested applicants should forward their resumes to: SmithKline Beecham Pharmaceuticals, Employment Administrator, #L048, PO Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.



**SmithKline Beecham**  
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## Molecular Neurobiologist/ Protein Biochemist

Postdoctoral/Research Associate Position. At Harvard Medical School, Mailman Research Center for a Ph.D. scientist with background in immunohistochemistry, characterization of transcription factors involved in regulation of neurotransmitter-receptor gene expression, and transfection studies. The research is basic neuroscience with relevance to CNS injury, synapse formation, and aging.

Please send curriculum vitae and the names of three references to: Dr. S. Bursztajn, McLean Hospital, Mailman Research Center, 115 Mill Street, Belmont MA 02178. Fax (617) 855-3479. An equal opportunity employer.



For the Good of Mind, Body and *Spirit*  
THE MGH HEALTH AFFILIATES

## Associate Director

### National Institute of Standards and Technology

The National Research Council is seeking an Associate Director for its Board on Assessment of National Institute of Standards and Technology (NIST) Programs. Responsibilities include coordinating appointments to the Board and its 8 panels, organizing and conducting meetings, preparing reports and funding proposals, managing fiscal responsibilities, overseeing special analysis, and assisting in Congressional testimony and other Board presentations. Requires a PhD or equivalent in the physical sciences, mathematics, or engineering, and at least four years experience in interdisciplinary research and development related to industrial applications and commercialization of technology. Experience in the development of technology policy, strategy planning, and quality control is desirable, as is direct industrial experience. Please submit a resume, salary requirements, and names of three references to NRC/CPSMA (NAS-285 NM), 2101 Constitution Ave., NW, Washington, DC 20418. EOE.



**SIBIA**

SIBIA is continuing to expand its interdisciplinary research and development on therapeutics for neurodegenerative diseases. We are currently seeking candidates for:

### SCIENTISTS AND/OR ASSOCIATE SCIENTISTS IN NEUROSCIENCE

#### MOLECULAR/BIOCHEMICAL NEUROPHARMACOLOGY

PhD with 3+ years' postdoctoral experience in molecular pharmacology, with particular emphasis on receptor binding, signal transduction, second messenger systems, including measurement of intracellular calcium using fluorescent techniques.

BS/MS with 3-5 years' experience in biochemical pharmacology (enzymology, uptake and release studies and/or other studies related to neuropharmacology or ion channels and neurotransmitter receptors).

#### MOLECULAR NEUROBIOLOGY:

PhD with 3+ years' postdoctoral research experience in recombinant gene expression in mammalian cells, with particular emphasis on stable expression of CNS receptors and/or ion channels.

#### NEUROANATOMY:

PhD/MD with training in neuroanatomy brain lesioning, immunohistochemistry, and *in situ* hybridization techniques. Knowledge of human neuroanatomy desirable.

#### ELECTROPHYSIOLOGY:

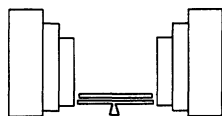
BS/MS with 2-4 years' laboratory experience in preparing, performing, and analyzing whole cell/two electrode voltage clamp experiments to characterize ligand-gated ion channels.

#### BEHAVIORAL NEUROPHARMACOLOGY:

PhD Behaviorist with 5+ years' experience in cognition and motor function. Knowledge of models of focal cerebral ischemia is an advantage.

BS/MS with 2-4 years' experience in behavioral techniques including cognitive tests, motor function tests, and modes of focal ischemia.

SIBIA offers a salary commensurate with experience, excellent benefits, a superior work location and a national reputation. Send C.V. with names of three references to: Lynn Alba, c/o SIBIA, 505 Coast Bl. South, Suite 300, La Jolla, CA 92037. EOE.



The Salk Institute for Biological Studies

## Position in Genetics The Salk Institute for Biological Studies

The Salk Institute is recruiting an Assistant/Associate Professor in mammalian genetics, emphasizing but not restricted to human genetics. The successful candidate is expected to establish an independent research program focusing on basic biological problems related to development, differentiation, or disease. The position provides an opportunity to interact with other faculty pursuing research in neurosciences, developmental and cancer biology, and to benefit from a human genome center developing state of the art physical mapping and genome sequencing technology. Candidates should submit a C.V., three letters of recommendation, and a brief description of future research directions to:

**Dr. Geoffrey M. Wahl**  
Chair, Genetics Search Committee  
The Salk Institute for Biological Studies  
10010 N. Torrey Pines Road  
La Jolla, Calif. 92037

The Salk Institute is an equal opportunity employer.



**NYU SCHOOL OF  
MEDICINE AT NYU  
MEDICAL CENTER**

## Asst. Research Scientist

NYU Medical Center currently has a (N.I.H.-supported) Post-Doctoral position, available as of August 1, 1993, in the molecular immunology laboratory of Dr. Paolo Casali (Department of Pathology and Kaplan Comprehensive Cancer Center) to study human Ig genes. You will be part of a productive group focusing on the analysis, in vitro expression, and site-directed mutagenesis of human Ig VH and VL genes, with emphasis on those involved in autoimmune diseases, B cell leukemias and lymphomas, as well as the study of newly identified human B cell subpopulations. Experience in molecular biology is essential.

The N.Y.U. School of Medicine, which includes the new Skirball Institute of Biomolecular Medicine, is part of N.Y.U. Medical Center. It has a state of the art research facilities and offers an outstanding scientific environment. It is located in attractive mid-town Manhattan. A wide housing selection is readily available in the immediate vicinity.

Applicants should send their *Curriculum vitae* and names of three references to Ms. M. Singh, Human Resources Dept., NYU Medical Center, 550 First Ave., NY, NY 10016. Resumes must be received by 7/5. EOE, M/F.

## 1994 KEYSTONE SYMPOSIA on Molecular and Cellular Biology

### HEMATOPOIESIS

Organizers: David Golde and Jerome Groopman  
January 4 - 11, 1994; Breckenridge, Colorado  
Sponsored by Amgen, Inc.

### MOLECULAR EVENTS IN MICROBIAL PATHOGENESIS

Organizers: Vincent Fischetti, Virginia Miller  
and Marian Neutra  
January 8 - 14, 1994; Santa Fe, New Mexico

### IMPROVED CROP AND PLANT PRODUCTS THROUGH BIOTECHNOLOGY

Organizers: Barbara Mazur, Jan Leemans and Richard Flavell  
January 9 - 16, 1994; Keystone, Colorado

### MOLECULAR MECHANISMS COMMON TO TYPES I AND II DIABETES

Organizers: Ira Goldfine and Michael Czech  
January 14 - 21, 1994; Park City, Utah

### THE ADIPOSE CELL

Organizers: Constantine Londos, Samuel Cushman  
and Vincent Manganiello  
January 14 - 21, 1994; Park City, Utah

### MOLECULAR BIOLOGY OF HUMAN GENETIC DISEASE

Organizers: Maimon Cohen, Beverly Emanuel,  
David Ledbetter and Arthur Beaudet  
January 15 - 22, 1994; Copper Mountain, Colorado  
Sponsored by SmithKline Beecham Pharmaceuticals

### GENE THERAPY

Organizers: Inder Verma and Fred Gage  
January 15 - 22, 1994; Copper Mountain, Colorado

### INFLAMMATION, GROWTH REGULATORY MOLECULES & ATHEROSCLEROSIS

Organizers: Russell Ross and Michael Gimbrone  
January 16 - 23, 1994; Keystone, Colorado  
Sponsored by Genentech, Inc. and  
ZENCA Pharmaceuticals Group

### MOLECULAR BIOLOGY OF THE ENDOTHELIAL CELL

Organizers: Thomas Edgington, David Loskutoff and  
Thomas Maciag  
January 16 - 23, 1994; Keystone, Colorado  
Sponsored by Genentech, Inc. and  
ZENCA Pharmaceuticals Group

### TRANSPOSITION AND SITE-SPECIFIC RECOMBINATION: MECHANISM & BIOLOGY

Organizers: Nancy Craig and Jef Boeke  
January 21 - 28, 1994; Park City, Utah

### ADVANCES AND CONTROVERSIES IN BONE MARROW TRANSPLANTATION

Organizers: Richard Champlin and Robert Peter Gale  
January 23 - 30, 1994; Keystone, Colorado  
Exclusively Sponsored by Cytokine Development Unit,  
Sandoz Pharmaceuticals Corporation

### STEM CELLS

Organizers: Irv Weissman and Ihor Lemischka  
January 31 - February 7, 1994; Taos, New Mexico

### TRANSMEMBRANE SIGNAL TRANSDUCTION: STRUCTURE, MECHANISMS, REGULATION AND EVOLUTION

Organizer: Merl F. Hoekstra, Tony Hunter, Heidi Hamm,  
Jim Hicks, Tony Pawson, Edward A. Dratz and Alfred Wittinghofer  
February 6 - 13, 1994; Keystone, Colorado

### PREVENTION AND TREATMENT OF AIDS

Organizer: Dani Bolognesi  
February 6 - 13, 1994; Location to be Determined  
Sponsored by SmithKline Beecham Pharmaceuticals and  
Specialty Laboratories, Inc.

### STEROID/THYROID/RETINOIC ACID SUPER GENE FAMILY

Organizers: John Cidlowski, Jan Ake Gustafsson  
and Malcolm Parker  
February 7 - 13, 1994; Taos, New Mexico

### BASIC ASPECTS OF TRANSCRIPTION

Organizers: Danny Reinberg and Jack Greenblatt  
February 13 - 20, 1994; Keystone, Colorado

### THE EUKARYOTIC NUCLEUS

Organizers: Douglass Forbes and Elizabeth Blackburn  
February 13 - 20, 1994; Tamarron, Colorado

### NUCLEIC ACID-PROTEIN INTERACTIONS

Organizers: Jeremy Bruenn and Bik-Kwoon Tye  
February 13 - 20, 1994; Tamarron, Colorado

### TUMOR SUPPRESSOR GENES

Organizers: Curtis Harris and Stephen Friend  
February 13 - 20, 1994; Taos, New Mexico

### HUMAN TUMOR VIRUSES

Organizers: Peter Howley, Don Ganem, Elliott Kieff  
and Flossie Wong-Staal  
February 13 - 20, 1994; Taos, New Mexico

### THE CELLULAR AND MOLECULAR REGULATION OF THE ACUTE INFLAMMATORY RESPONSE

Organizers: Heinz Baumann, Jack Gaudie and Carl Richards  
February 20 - 25, 1994; Tamarron, Colorado  
Sponsored by Abbott Laboratories  
and SmithKline Beecham Pharmaceuticals

### BIOLOGY OF PHYSICOCHEMICAL INTERACTIONS AT THE CELL SURFACE

Organizers: Urs Rutishauser, Douglas Lauffenburger  
and Timothy Springer  
February 20 - 26, 1994; Taos, New Mexico  
Sponsored by ICOS Corporation

### TISSUE ENGINEERING

Organizers: Robert Nerem and Donald Ingber  
February 20 - 26, 1994; Taos, New Mexico

### LIPID SECOND MESSENGERS

Organizer: Edward Dennis  
February 26 - March 4, 1994; Taos, New Mexico

### PROTEIN KINASE C: REGULATION, STRUCTURE, FUNCTION AND ROLE IN HUMAN DISEASE

Organizers: Robert Bell, Peter Parker and Yasutomi Nishizuka  
February 26 - March 4, 1994; Taos, New Mexico

### MOLECULAR BASIS OF CANCER THERAPY

Organizer: Michael Gottesman  
March 4 - 10, 1994; Tamarron, Colorado

### STRUCTURAL AND MOLECULAR BIOLOGY OF PROTEASE FUNCTION AND INHIBITION

Organizers: Christine Debouck and Charles Craik  
March 5 - 12, 1994; Santa Fe, New Mexico

### ANTIBODY ENGINEERING: RESEARCH AND APPLICA- TION OF GENES ENCODING IMMUNOGLOBULINS

Organizers: Martin Rosenberg and Gordon Moore  
March 7 - 13, 1994; Lake Tahoe, California

### BREAST AND PROSTATE CANCER II

Organizers: Marc Lippman, Robert Dickson and John Isaacs  
March 14 - 20, 1994; Lake Tahoe, California  
Sponsored by Abbott Laboratories  
and OncQuest, Division of Specialty Laboratories, Inc.

### COMPLEX CARBOHYDRATES IN BIOLOGY AND MEDICINE

Organizers: Jeffrey Winkelhake and Raymond Dwek  
March 19 - 26, 1994; Frisco, Colorado

### LYMPHOCYTE ACTIVATION

Organizers: Charles Janeway, James Allison  
and Jonathan Sprent  
April 10 - 17, 1994; Keystone, Colorado  
Sponsored by Immunex Corporation

### MOLECULAR BIOLOGY OF MUSCLE DEVELOPMENT

Organizers: Eric Olson, Nadia Rosenthal and Everett Bandman  
April 11 - 17, 1994; Snowbird, Utah

☐ Registration in any meeting in an outlined group qualifies for attendance in any meeting in that group.

For more information, please contact:

Keystone Symposia, Department S, Drawer 1630, Silverthorne, CO 80498  
Phone: (303) 262-1230; Fax: (303) 262-1525



## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately, three year NIH-funded project to study glycoconjugates as targeted drug delivery carriers. Requires a Ph.D. in Biochemistry, Chemistry, or related discipline with expertise in carbohydrate and/or protein chemistry. The individual will be responsible for purification and characterization of oligosaccharides from glycoproteins, combined chemical/enzymatic remodeling of oligosaccharides, and the conjugation of oligosaccharides to carriers. Competitive salary plus benefits. Send curriculum vitae and three letters of recommendation to: **Dr. Kevin Rice, Division of Pharmaceutical Chemistry, College of Pharmacy, Ohio State University, Columbus, OH 43210; Telephone: 614-292-6078, FAX: 614-292-7766.**

### DANA-FARBER CANCER INSTITUTE HARVARD MEDICAL SCHOOL

A **POSTDOCTORAL POSITION** is available immediately for a project involving the molecular basis of human and murine leukemias. A background in cell culture and molecular biology is advantageous, but highly motivated individuals with experience in related areas are encouraged to apply. Send curriculum vitae and the names of three references to: **Dr. Alan D'Andrea, Division of Cellular and Molecular Biology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.**

**POSTDOCTORAL POSITION** in molecular and cellular biology to study the endocrine regulation of the rat inner ear fluid microhomeostasis. Candidate should possess a relevant doctoral degree and have experience with PCR, Northern and Southern blotting, *in situ* hybridization, RIA, cell culture, monoclonal antibody preparation and receptor binding. Please contact: **Kyle E. Rarey, Ph.D., University of Florida Health Science Center, Department of Anatomy and Cell Biology, P.O. Box 100235, Gainesville, FL 32610-0235, U.S.A. Telephone: (904) 392-3420; Facsimile: (904) 392-3305.**

**POSTDOCTORAL POSITIONS** will be available on or about 1 June 1993 to study the molecular genetics and biochemistry of natural product and anti-metabolite drug resistance in mammalian cells. Projects include: (1) the use of *in vitro* mutagenesis and drug selection *in vivo* to obtain altered forms of p-glycoprotein in an effort to define the mechanism(s) responsible for its drug efflux and chloride channel properties; (2) determination of the genetic basis for the differential amplification of polymorphic dihydrofolate reductase alleles in CHL cells during selection in antifolates; and (3) the identification and molecular characterization of the reduced folate transport system. Candidates must have a Ph.D., M.D. or equivalent degree and significant expertise in molecular biology and recombinant DNA techniques. Send curriculum vitae to: **Dr. Peter W. Melera, Department of Biological Chemistry and the Molecular and Cell Biology Program, University of Maryland, Biomedical Research Facility, 108 North Greene Street, Baltimore, MD 21201. Equal Opportunity/Affirmative Action Institution.**

### POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE

To study mechanisms of hypertension and cardiomyopathy. Must have a Ph.D. and strong background in molecular biology. Salary depends on experience. Send curriculum vitae and 3 references to: **Robert Mak, M.D., Ph.D., Department of Pediatrics, Stanford University School of Medicine, Stanford, CA 94305-5119. FAX: (415) 723-8406.**

### Connecticut-Yale University, Department of Biology- POSTDOCTORAL FELLOWSHIP IN BIOLOGY

Position available to study the role of transcription factors in mammalian development and disease using molecular biology and biochemical techniques. Send curriculum vitae and names of three references by August 15, 1993, to: **Dr. Trevor Williams, Department of Biology, Yale University, P.O. Box 6666, New Haven, CT 06511-8112. Yale University is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are especially urged to apply.**

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

## POSITIONS OPEN

**POSTDOCTORAL FELLOW**—The Department of Medical Cell Biology at the Alfred I. duPont Institute seeks a postdoctoral fellow to participate in an NIH-funded research project on mechanisms of amino acid and iron nutrition in the mammalian embryo. Candidates should possess a Ph.D. and relevant experience in cell biology or a related field. Send inquiries to: **Department #8801, Attention: Dr. J. B. Lloyd, Director, Department of Medical Cell Biology, ALFRED I. duPONT INSTITUTE, P.O. Box 269, Wilmington, DE 19899. Equal Opportunity Employer.**

The Department of Dermatology of the Bowman Gray School of Medicine of Wake Forest University invites applications for a **POSTDOCTORAL FELLOW** or **RESEARCH ASSISTANT PROFESSOR** to join our basic investigational dermatology laboratory. Our laboratory currently has interests in transcriptional regulation, molecular toxicology, regulation of proteinases and photoaging. Opportunities for teaching and cross appointment in a basic science department exist but are not required. We are seeking someone who enjoys close collaboration with colleagues in a friendly, supportive environment. Development or continuation of an externally funded research program is expected of candidates desiring evolution to a tenure-track position. Applications including curriculum vitae, a statement of interests and goals, and references should be sent to: **Steve Feldman, M.D., Ph.D., Department of Dermatology, Bowman Gray School of Medicine, Winston-Salem, NC 27157-1071. Affirmative Action/Equal Opportunity Employer.**

### NEUROBIOLOGY OF DRUG ABUSE

A **POSTDOCTORAL RESEARCH FELLOW-SHIP** is available to study *in vivo* neurotransmitter mechanisms relating to brain substrates of cocaine reward and craving. Requirements: *must have proof of eligibility to work in the U.S.; M.D. or Ph.D. with specialization in neuroscience or closely related field; hands-on experience with stereotaxic brain surgery in lab animals, in vivo brain microdialysis in awake behaving animals, electrical brain-stimulation reward, place-conditioning, and high-performance liquid chromatography (HPLC).* Please send or FAX: **(718-918-9274)** a copy of your curriculum vitae and a cover letter together with names, addresses, and telephone numbers of three references to: **Dr. Eliot Gardner, Program in Brain and Behavior, Forchheimer Building G-49, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH FELLOW/POSTDOCTORAL RESEARCH SCIENTIST:** Openings available in the Department of Physiology for the study of spinal cord synaptic transmission and development. Studies will include the use of video microscopy to follow changes in morphology, growth patterns and intracellular  $Ca^{2+}$ ; molecular identification and characterization of developmental factors; whole cell recording of membrane potential and currents; immunocytochemical characterization of subpopulations of neuronal cell types. Curriculum vitae and the names of three references may be sent to: **Mr. Stan Morer, Department of Physiology and Cellular Biophysics, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.**

### NMR SPECTROMETRY

Five years of full-time research support is available for solid state  $^{13}C$  and  $^2H$  NMR studies of organized lipid and protein structures in epidermis. Bruker MSL300, WM360, and AMX600 instruments available for related studies. Requires a recent Ph.D. specialized in NMR spectrometry and interested in acquiring additional techniques and experience for application to biological systems. Rank and salary will depend upon qualifications and experience. Write: **Prof. D. T. Downing, Ph.D., 270 Medical Labs, University of Iowa College of Medicine, Iowa City, IA 52242.**

*The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Protected groups are encouraged to apply.*

## POSITIONS OPEN

**BIOLOGIST.** Temporary (two-semester) opening for a plant ecologist to begin in August 1993. The College, with an enrollment of 1100, has a highly selective program for undergraduates and is located on a forested 10,000-acre tract on the Cumberland Plateau of Middle Tennessee. Send letter of application, curriculum vitae, transcripts, and three letters of reference to: **Dr. Larry Jones, Biology Department, The University of the South, Sewanee, TN 37375. Equal Opportunity Employer. Women and minorities are encouraged to apply.**

**PHYSICIST** to work in Newport News, Virginia; forty hours per week (8:00 a.m. to 5:00 p.m.; salary: \$36,000 to \$56,800 per year.

Incumbent will contribute to the design, construction, installation, and commissioning of experimental equipment for the High Resolution Magnetic Spectrometers in an accelerator end station. Design and develop spectrometer positioning and alignment systems, high power cryogenic targets, focal plane detectors, and data acquisition and control systems; also develop computer programs to simulate experiments and participate in collaborations and independent research activities in areas of current and/or future interest to the Laboratory. Will publish research papers in scientific journals and present seminars at conferences.

Requires a Ph.D. Degree in Nuclear Physics with graduate coursework in Experimental Intermediate/High Energy Nuclear Physics and at least four years of postgraduate experience in experimental nuclear physics at an intermediate/high energy electron accelerator laboratory, including design and construction of particle detectors (e.g. Cerenkov counter, electromagnetic calorimeters, and electronics/data acquisition and control systems (both hardware and software)). Demonstrated expertise simulating physics experiments using GEANT also is required.

To apply, mail résumé with copy of this ad attached to: **VEC #VA2051984, 5145 East Virginia Beach Boulevard, Norfolk, VA 23502.**

### MOLECULAR BIOLOGIST/ MICROBIOLOGIST

The Department of Oral Sciences, Eastman Dental Center, Rochester, New York, seeks applicants for a research faculty position. A Ph.D. is required, with postdoctoral experience and a strong background in molecular biology with emphasis on microbiology. Expertise in plasmid DNA research would be beneficial. The successful candidate will be expected to establish an extramurally funded research program, to interact with other scientists, and to conduct limited graduate teaching. Knowledge of dental research is desirable but not essential. A multidisciplinary medical, dental and basic research community exists on the combined Eastman Dental Center/University of Rochester campus. Initial appointment would be at **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Submit curriculum vitae, reprints, and letters of reference to: **Ms. L. Bork, Human Resources, Eastman Dental Center, 625 Elmwood Avenue, Rochester, NY 14620. Equal Opportunity Employer/Affirmative Action Employer, M/F/V/H.**

### LIPID BIOCHEMIST/ MOLECULAR BIOLOGIST

The Department of Oral Sciences, Eastman Dental Center, Rochester, New York, seeks applicants for a research faculty position. A Ph.D. is required, with postdoctoral experience, a strong background in lipid biochemistry, and with a working knowledge of molecular biology. Expertise in lipid function in the human body would be beneficial. The successful candidate will be expected to establish an extramurally funded research program, to interact with other scientists, and to conduct limited graduate teaching. Knowledge of dental research is desirable but not essential. A multidisciplinary medical, dental and basic research community exists on the combined Eastman Dental Center/University of Rochester campus. Initial appointment would be at **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Submit curriculum vitae, reprints, and letters of reference to: **Ms. L. Bork, Human Resources, Eastman Dental Center, 625 Elmwood Avenue, Rochester, NY 14620. Equal Opportunity Employer/Affirmative Action Employer, M/F/V/H.**

## NATIONAL INSTITUTES OF HEALTH

### MOLECULAR BIOLOGIST AND RETROVIROLOGIST IN HIV RESEARCH

The Laboratory of Tumor Cell Biology of the Division of Cancer Etiology, National Cancer Institute is accepting applications for a permanent position for a medical doctor with extensive research experience. The position will be at the GS-13 grade level with a salary range of \$46,210 - \$60,070.

#### The successful candidate will be expected to:

1. Conduct original research towards the development of anti-viral gene therapies for treatment of HIV-1 infections and AIDS. Experience in the targeted directed introduction of genes into specific cells by methods such as entry through the endosomal pathway in combination with inactivated adenovirus is critical, as is a familiarity with molecular aspects of the HIV-1 life cycle.
2. Serve as Principal Investigator for experimental studies of HIV-1 infection *in vitro*, with particular emphasis on the design and delivery of genes which can inhibit HIV-1 replication and expression.
3. Provide expert consultation to the Research Program of the laboratory in matters involving the suitability of different gene delivery techniques and anti-viral genes for the possible treatment of HIV-1 infection.

#### Candidates with the following qualifications will be given preference:

1. M.D. with background in molecular biology, cellular biology and retrovirology whose training was focused on the HIV life cycle.
2. Post-doctoral research experience in molecular aspects of HIV-1 replication and expression, including molecular aspects of cell tropism.
3. Strong interest and experience in the development of a research program which utilizes techniques of molecular biology and retrovirology to impact the field of human retroviruses, especially HIV-1, and the development and analysis of molecular constructs containing genes which protect target cells from HIV-1 infection.
4. Broad knowledge of the molecular biology of the life cycle of human retroviruses and their interaction with host cells, especially HIV-1 infection of primary T-cells and macrophages.
5. Ability to effectively communicate in English both orally and in writing.
6. Relevant publications in top scientific journals.

Applicants must be found to be eligible on a Civil Service Register. If interested, please send a C.V. by June 18, 1993 to:

**Ms. Patricia Stephenson, National Institutes of Health, Bldg. 37, Rm. 1A07, 9000 Rockville Pike, Bethesda, MD 20892.**

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**Tim Ley** - Regulation of globin genes and protease genes during hematopoietic development.  
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**Jeff Milbrandt** - Immediate-early genes and the regulation of cellular responses to stress.  
**Craig Pikaard** - Activation of RNA polymerase I transcription initiation.  
**Kathy Parker Ponder** - Hepatic gene regulation and therapy.  
**Peter Rotwein** - Peptide growth factor gene expression; molecular mechanisms of growth hormone action.  
**Robert Thach** - Regulation of gene expression at the translational level; ferritin translational controls.  
*...and others.*

For additional information please write to Division of Biology and Biomedical Sciences, Department MJ, Campus Box 8226, 660 S. Euclid Ave., St. Louis, MO 63110-1093.

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Alpha Therapeutic Corporation offers an environment that will challenge your skills and reward your contributions with excellent compensation and opportunities for advancement. For consideration, please submit your CV./resume to: **Nan Maaskamp, Manager of Human Resources, Mail Stop NM-927, 5555 Valley Blvd., Los Angeles, CA 90032. AA/EOE**

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# DIRECTOR GENERAL

## INTERNATIONAL CENTER FOR LIVING AQUATIC RESOURCES BASED MANILA

ICLARM is a nonprofit, autonomous, nongovernmental, international center with headquarters in the Philippines. The Center pursues strategic research for sustainable aquaculture and fisheries in tropical developing countries, emphasizing sustainable use of natural resources and environmental care, for the benefit of small-scale producers and rural poor.

The Center's programs focus on three resource systems – inland (principally ponds and rice flood waters), coastal, and coral reef. National research support activities complement the Center's research work. There is a staff of nearly 200 worldwide.

ICLARM is a member of the CGIAR system and is funded by a number of government agencies and foundations and governed by a 15-member international Board of Trustees.

**DUTIES AND RESPONSIBILITIES:** The Director General will be based in Manila and have full responsibility for management, direction, and fund-raising under the supervision of the Board. He or she will be responsible for close communication with research and development organizations worldwide and with potential and current donors. The position requires frequent travel.

**QUALIFICATIONS:** (1.) Ph.D. plus extensive research experience in one or more of ICLARM's program areas. (2.) Ability to work with scientists, research institutions, fisheries agencies, and other national, regional, and international governmental and nongovernmental entities. (3.) Proven competence in managerial matters to ensure efficient operation of an international multidisciplinary center. (4.) Proven competence in dealing effectively with fund-raising activities and donor organizations.

The appointment is for an indefinite term and is available immediately. Salary, benefits, and allowances are negotiable, commensurate with the experience of the candidate, and equivalent to those provided by international agricultural research centers. For more information, contact Dr. D.L. Alverson.

**APPLICATION:** Applications should be addressed to: Dr. D.L. Alverson, ICLARM Search Committee, 4055 21st Avenue West, Suite 200, Seattle, Washington 98199, USA. Telephone: (206) 285 3715. Telefax: (206) 283 8263.

Include complete personal qualifications and experience, with present and previous positions and salaries, and names, addresses, and phone numbers of three personal references.

## CELL BIOLOGIST

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has an exciting, new opportunity for a Molecular Biologist to join its expanding research team. The selected individual will establish and conduct an independent research program in the molecular and cellular mechanisms of glomerular remodeling and, in particular, glomerular matrix production. The successful candidate will have a Ph.D. in Cell Biology, Molecular Biochemistry, Pharmacology, Biochemistry or related discipline with two to eight years of relevant post-doctoral and/or industrial experience. He/She must also have expertise in mesangial, vascular smooth muscle and/or endothelial cell biology. Experience with extracellular matrix, and/or molecular biology is preferred. A strong record of scientific publications, superior oral/written communication skills, and a high level of motivation and organization skills are also required.

Our state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package, as well as a stimulating and challenging work environment based on creativity, commitment and teamwork. For confidential consideration, please submit your C.V. and the names of three references to: SmithKline Beecham Pharmaceuticals, Employment Administrator, #L046, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.



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This conference will provide a forum highlighting some of the many recent advances in glycobiological research pertaining to the pathophysiology, diagnosis and treatment of human diseases. A major goal of the conference will be to emphasize and encourage the formation of collaborative interactions among basic science, clinical and biotechnological researchers. Principal topics to be discussed include glycobiology as it relates to:

- *Development*- fertilization, tissue differentiation, angiogenesis
- *Infectious disease*- malaria, leishmaniasis, *Herpes*, oral bacteria, trypanosomiasis, AIDS
- *Adhesion*- selectins, metastasis, viral infectivity
- *Diagnostics*- tumor & metastasis markers, metabolic diseases, rheumatoid arthritis
- *Therapeutics*- new FDA regulatory paradigms, anti-parasitic agents, mimetics, chemotherapeutics, glycoprotein hormones, gene therapy

There is no registration fee for this conference. For more information contact: Gordon Holt or Donna Krasnewich, Bld. 10, Rm. 9S242, NIH, Bethesda, MD, 20892, Tel: (301) 496-9101, Fax: (301) 402-0234.

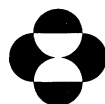
## DRUG METABOLISM SCIENTISTS

Two positions are available to work closely with a multidisciplinary team of chemists, biologists and pharmacologists at our Department of Animal and Exploratory Drug Metabolism. The selected candidates will provide essential pharmacokinetic and metabolism data in both exploratory research programs and preclinical ADME studies required for IND submissions.

**MASS SPECTROMETRY** - to develop LC/MS/MS based analytical methods for the quantitative and qualitative determination of drugs and metabolites in biological fluids. A B.S./M.S. degree in chemistry, analytical chemistry, biochemistry or another closely related discipline with 3-5 years research experience is required. You should be well versed in all aspects of HPLC separation techniques and have some background in drug metabolism and pharmacokinetics. Demonstrated ability to apply techniques of mass spectrometry to problems of drug quantitation and structure elucidation is desired as is familiarity with the operation of a SCIEX API III triple quadrupole mass spectrometer. Publication of original research is highly encouraged.

**DRUG METABOLISM** - in vivo and in vitro metabolism studies of drugs. An M.S. in chemistry/biochemistry (or a related field) with 1-2 years of research experience, or a B.S. in chemistry/ biochemistry with at least 3 years of research experience or equivalent is required. Some knowledge of drug metabolism with demonstrated strength in modern analytical techniques such as HPLC is desirable. Other desirable experience includes the isolation, purification and characterization of metabolites from biological fluids and handling of radiolabeled chemicals - or - skills in cell culture, organ perfusion, and small animal surgical techniques.

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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.

### Computational Structural Biologist

The Structural Biology group seeks a computational scientist to aid in the development and application of theoretical methods for modeling three-dimensional structures and interactions of oligonucleotides. Successful candidates will have a solid background and understanding of molecular mechanics and molecular dynamics computer simulation techniques. Applicants must be comfortable with mathematics and computer programming, and enjoy collaborating with molecular biologists and organic chemists. Both a Ph.D. and postdoctoral experience are required.

Respond to Dept. COMP

### Virologist

NeXagen seeks a highly motivated Virologist to direct development of anti-viral ligands using SELEX technology. The successful candidate should have broad experience in investigation of molecular mechanisms of eukaryotic viral pathogenesis with particular expertise in nucleic acid biochemistry. A background in gene delivery mechanisms via viral vectors and DNA transfections is also desirable.

Respond to Dept. VIRO

Please submit C. V., references, and a brief description of research interests and skills, and include a short note describing your capacity to establish an independent research effort in this relatively new area. NeXagen has close research ties to the University of Colorado in Boulder, and established collaborative arrangements with other strong scientists throughout the world. Submissions should be sent to NeXagen, Inc., (Include Position Dept.), 2860 Wilderness Place, Suite 200, Boulder, CO 80301.

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## Research Scientists Stem Cell Biology

Candidates must have a Ph.D. in cell/molecular biology or biochemistry, preferably with an emphasis on hematopoietic cell growth and differentiation, and 2-4 years postdoctoral experience. Your responsibilities will include developing new research programs in the areas of the identification and characterization of new hematopoietic growth factors, stem cell and megakaryocyte biology or receptor biology, as well as complementing on-going projects. If you're interested in this position, please submit a complete curriculum vitae. (Job Code OA-SC-JC-017)

At Amgen, we provide our employees with the freedom to manage their projects, regulate the quality of work, and make decisions within company goals. We back this freedom with meaningful challenge and responsibility, as well as a compensation and benefits package that reflects the level of our commitment. If you're interested in one of the above positions, please submit appropriate information, for confidential consideration, to: **Amgen Inc., Staffing, Job Code (See Above), Amgen Center, Thousand Oaks, CA 91320-1789.**

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## POSITIONS OPEN

### POSTDOCTORAL FELLOW

To work with multidisciplinary group on generation of new tissue equivalents using cultured cells on novel polymer scaffolds. Focus will be on hepatocytes and control of hepatocyte function through matrix interaction. Available immediately. Send curriculum vitae, statement of research interests, and names and addresses of three references to: **Joseph P. Vacanti, M.D., Department of Surgical Research, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Children's Hospital is an Equal Opportunity Employer.**

### POSTDOCTORAL RESEARCH ASSOCIATE

Position is available to investigate plant/bacterial metabolism in symbiotic nitrogen fixation. Protein chemist who knows or wants to learn molecular biology and microbial/plant physiology would be ideal. Send letter of application with three letters of reference to: **Michael Kahn, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340; Telephone: (509) 335-8327, FAX: (509) 335-7643. Salary: \$22,032 per year. Begin date: July 1, 1993.**

*Washington State University is an Equal Opportunity Employer. Accommodations for applicants who qualify under the Americans with Disabilities Act are available upon request.*

### POSTDOCTORAL/RESEARCH ASSOCIATE—

Position available immediately for individual to participate in research on the molecular genetics of hereditary renal cancer and tumor suppressor genes in an animal model. Candidates with strong background in molecular biology/positional cloning preferred. Opportunity for experience in fluorescence *in situ* hybridization and microdissection available. Send curriculum vitae and names of three references to: **Dr. Raymond Yeung, c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. We are an Equal Opportunity/Affirmative Action Employer.**

### MEDICAL OFFICER (RESEARCH)

GS-602-15. Vacancy Announcement: HL-93-30. All applications must be received by July 13, 1993. The National Heart, Lung, and Blood Institute is recruiting a Medical Officer (Research) in the Lipid Metabolism-Atherogenesis Branch, Division of Heart and Vascular Diseases. Mandatory qualifications are a medical doctorate. Applicants must meet the following selective factors: (1) Ability to plan and manage major research programs involving complex administrative/management issues; (2) knowledge of epidemiological and clinical trial research approaches and techniques applicable to cardiovascular medicine; (3) skill in oral communication appropriate to numerous and varied contacts with the scientific community and the general public; (4) interpersonal skills needed in dealing effectively with colleagues and on-government scientists in the course of daily work; (5) professional knowledge of clinical medicine. In addition, there are specific knowledge, skills, and abilities that applicants need to address. Please telephone the Personnel Office for additional information on (301) 496-6477. Salary range from \$71,049 to \$91,029 per year depending on qualifications. Applicants may be eligible for various bonuses, awards, and allowances. Please submit an Application for Federal Employment (SF-171), curriculum vitae and bibliography to: **Susan McGowan, Personnel Management Specialist, Building 31, Room 5A28, NIH, NHLBI, 9000 Rockville Pike, Bethesda, MD 20892. U.S. Citizenship required. NIH is an Equal Opportunity Employer.**

**GENE THERAPY OF DIABETES**—A position to study gene therapy of diabetes in experimental animals is available at the ASSISTANT SCIENTIST level. Ph.D. or M.D. and experience in molecular biology are required. Gene therapy experience preferred. Send curriculum vitae to: **Dr. Michael J. MacDonald, University of Wisconsin Medical School, Room 3459, 1300 University Avenue, Madison, WI 53706. Telephone: (608) 262-1195.**

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## ANNOUNCEMENTS

### NEUROGERONTOLOGY INSTITUTIONAL PHYSICIAN/SCIENTIST PROGRAM

The University of Southern California has recently received an award from the National Institute on Aging for a Physician/Scientist Program for the development of basic and clinical research skills for the study of diseases related to the aging nervous system. This is a five-year salary award with appointments in the Department of Neurology of the School of Medicine and in the School of Gerontology. *Candidate must be a U.S. Citizen or have permanent U.S. Resident status and be board eligible in neurology, psychiatry, neuropathology, or internal medicine.* The first two to three years are spent in basic research at the Andrus Gerontology Center or the Hedco Neuroscience Neural Information and Behavioral Science Program. During the third year, the candidate joins the Department of Neurology as Assistant Professor (tenure-track). He or she continues clinical training in neurogerontology and develops individual research program. Clinical responsibilities are limited to 25% of time and include teaching students, residents, and fellows in neurogerontology.

This position is open immediately. To apply send curriculum vitae and three letters of recommendation to: **Leslie P. Weiner, M.D., Department of Neurology, USC School of Medicine, 1510 San Pablo Street, Los Angeles, CA 90033-4606, and arrange for two days of interviews. For further information, call: 213/342-5793.**

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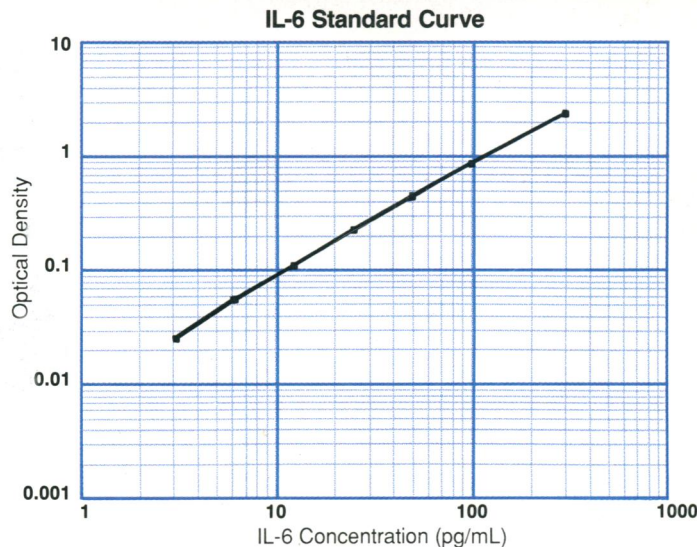
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